

**Moray Offshore Windfarm (West) Limited
Environmental Management Plan**



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MORAY OFFSHORE WINDFARM (WEST) LIMITED

Environmental Management Plan

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Plan Overview

Purpose and Objectives of the Plan

This Environmental Management Plan (EMP) has been prepared to address the specific requirements of the relevant conditions attached to the Section 36 (S36) consent and Marine Licences (collectively referred to as 'offshore consent conditions') issued to Moray Offshore Windfarm (West) Limited (Moray West).

The overall objective of the EMP is to provide the overarching framework for environmental management during the construction and operational lifespan, until the cessation of electricity generation, of the Moray West Offshore Windfarm and Offshore Transmission Infrastructure (OfTI) (collectively referred to as 'the Development').

The EMP is designed to provide practical guidance to those involved in the construction and operation of the Development, including Moray West personnel, Contractors and Moray West's Environmental Clerk of Works (ECOW), on the series of measures to mitigate or manage environmental impacts based on commitments made by Moray West and the requirements of the offshore consent conditions.

All Moray West personnel and Contractors involved in the Development must comply, as a minimum, with this EMP.

The EMP is a 'live document' and will be regularly reviewed and updated at intervals agreed by the Scottish Ministers, to take into account updated information on working practices, construction methods and operational and maintenance (O&M) environmental management procedures once they are available, prior to the operational phase of the Development.

Scope of the Plan

In line with the requirements of the offshore consent conditions, which are presented in Appendix B (Table B.2), along with industry standards and good practice, the EMP covers the following:

- The roles and responsibilities of key Development personnel with respect to environmental management;
- Means for communicating and reporting to the Scottish Ministers/Marine Scotland - Licensing Operations Team (MS-LOT) and relevant stakeholders on environmental issues and compliance with the EMP;
- Competence of all personnel involved with the Development and associated environmental training;
- Mitigation measures to prevent adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, with reference to relevant measures detailed in the remainder of the Development Consent Plans;
- Procedures associated with dropped objects;

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- Pollution prevention and contingency measures;
- Chemical usage measures;
- Waste management measures;
- Mitigation measures to prevent the introduction of marine non-native invasive species (MINNS); and
- Procedures for dealing with Unexploded Ordnance (UXO).

Structure of the Plan

Sections 1 and 2 give an overview of the Development, specify the scope and objectives of the EMP and details roles, responsibilities and training. The lines of communication and chains of command along with Development reporting requirements are also described.

Sections 3 and 4 details the mitigation measures and management of environmental impacts based on commitments made by Moray West in the consent application and the requirements of the offshore consents conditions. Issues identified within the offshore consents conditions such as dropped objects, marine pollution, chemicals, noise and unexploded ordinance are managed by specific measures.

Sections 5 features performance evaluation of the Development and its contractors from environmental monitoring to audits and inspections.

The accompanying Appendices present a detailed Development description, construction programme milestones, key stakeholders, details of the Conditions set out in S36 and Marine Licences, Moray West's commitment to sustainable construction, template Transportation Audit Reports (TAR) and dropped objects forms and a Marine Pollution Contingency Plan (MPCP), which are intended to support the application of measures set out in the EMP.

Plan Audience

The EMP is intended to be referred to by personnel involved in the construction and operation of the Development, including Moray West personnel and Contractors. All method statements and environmental management documents produced in relation to the Development must comply with this EMP.

Compliance with this EMP will be monitored by the Moray West Development team, Moray West QHSE team, Moray West's ECoW, and the MS-LOT.

Plan Locations

Copies of this EMP are to be held in the following locations:

- Moray West's main project office in Edinburgh;
- all site offices dealing with marine operations;

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- the Moray West Marine Coordination Centre (MCC);
 - the Contractors;
 - with the ECoW(s); and
- aboard any vessels carrying out construction and O&M activities for the Development (hereafter 'the Works').

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Abbreviations and Acronyms

Acronym / Abbreviation	Description
AC	Alternating Current
AEZ	Archaeological Exclusion Zone
ALARP	As Low As Reasonably Practicable
CaP	Inter Array Cable Plan
CMS	Construction Method Statement
CoP	Construction Programme
CTV	Crew Transfer Vessel
DP	Decommissioning Programme
ECoW	Environmental Clerk of Works
ECP	Export Cable Plan
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMS	Environmental Management System
ERCoP	Emergency Response Co-operation Plan
ERP	Emergency Response Plan
EPS	European Protected Species
FLO	Fisheries Liaison Officer
FMMS	Fisheries Management and Mitigation Strategy
HES	Historic Environment Scotland
HIRA	Hazard Identification Risk Assessment
HR	Human Resources
HSE	Health, Safety and Environment
IMS	Integrated Management System
JNCC	Joint Nature Conservation Committee
KPI	Key Performance Indicator
MARPOL	International Convention for the Prevention of Pollution from Ships
MCA	Maritime and Coastguard Agency
MCC	Marine Coordination Centre
MFCFWG	Moray Firth Commercial Fisheries Working Group
MFRAG	Moray Firth Regional Advisory Group
MHWS	Mean High Water Springs
MINNS	Marine Invasive Non-Native Species
MPCP	Marine Pollution Contingency Plan
MS-LOT	Marine Scotland - Licensing Operations Team
MSS	Marine Scotland Science
MSRA	Method Statement Risk Assessments
NLB	Northern Lighthouse Board

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Acronym / Abbreviation	Description
NtM	Notice to Mariners
O&M	Operations and Maintenance
ODS	Ozone-Depleting Substances
OCNS	Offshore Chemical Notification Scheme
OfTI	Offshore Transmission Infrastructure
OMP	Operation and Maintenance Programme
OSP	Offshore Substation Platform
PAD	Protocol for Archaeological Discoveries
PAS	Publicly Available Specification
PEMP	Project Environmental Monitoring Programme
PS	Piling Strategy
QHSE	Quality, Health, Safety and Environment
RSPB	Royal Society for the Protection of Birds
S36	Section 36
SEPA	Scottish Environment Protection Agency
SFF	Scottish Fishermen's Federation
SMWWC	Scottish Marine Wildlife Watching Code
SOPEP	Ship Oil Pollution Emergency Plan
TAR	Transportation Audit Report
UKHO	UK Hydrographic Office
UXO	Unexploded Ordnance
VMNSP	Vessel Management and Navigational Safety Plan
WMP	Waste Management Plan
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator

1 Introduction

1.1 Background

The Moray West Offshore Wind Farm and associated Offshore Transmission Infrastructure (OfTI) (referred to as 'the Development') is being developed by Moray Offshore Windfarm (West) Limited (known as 'Moray West'; see Appendix A for defined terms). Consent for the Development was granted on 14 June 2019 under Section 36 (S36) of the Electricity Act 1989 (as amended), Part 4 of the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 from Scottish Ministers (referred to collectively as 'Offshore Consents'). One S36 consent was granted by Scottish Ministers for the wind farm (012/OW/MORLW – 8) and two Marine Licences were granted by Scottish Ministers, one for the wind farm (06763/19/0) and another for the offshore transmission infrastructure (06764/19/0).

Further details of Moray West and the Development can be found in Appendix B.

1.2 Objectives of the Plan

S36 consent and Marine Licence conditions (referred to as 'offshore consent conditions') require the production of an Environmental Management Plan (EMP; Condition 14 of S36 and Marine Licences 06763/19/0 and 06764/19/0 conditions 3.2.2.11 and 3.2.2.10 respectively). The purpose of the EMP is to provide an over-arching framework for on-site environmental management during construction and operation of the Development (but excluding decommissioning). The relevant conditions setting out the requirement for an EMP for approval, and which are to be discharged by this EMP, are presented in full in Appendix B (Table B.2).

This EMP will be regularly reviewed and revised during construction to ensure it is kept up-to-date and it is fit for purpose and prior to final commissioning of the Development to take account of environmental management arrangements that may be specific to the O&M phase in accordance with the procedures set out in Section 2.

In addition to the specific consent requirements for an EMP and the requirements thereof, this EMP also includes information in respect of a number of other offshore consent conditions which are linked to the matter of environmental management; these are set out in Appendix B, Table B.3.

1.3 Linkages with other Consent Plans

The over-arching environmental management framework during the construction of the Development is set out in this EMP. The EMP is part of a group of approved documents that provide the framework for environmental management of the Development – namely the other Consent Plans required under the Offshore Consents.

Table 1.1 lists the Consent Plans with linkages to this EMP.

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Table 1.1 EMP linkage with other Consent Plans and Documents

Other Consent Plans and Documents	Linkage with EMP
Biosecurity Management Plan (BMP) (Offshore)	Provides details of guidance and mitigation measures to minimise the introduction and transfer of invasive non-native species.
Construction Method Statement (CMS)	Specifies the Development's construction methods, setting out good practice construction measures and how agreed mitigation measures from the Environmental Impact Assessment (EIA) report, associated documents, consents and those stated within this EMP are implemented during construction. Once the CMS has been approved by the Scottish Ministers, this EMP will be updated where required in order to reference relevant parts of the CMS.
Construction Programme (CoP)	
Cable Plan (CaP)	Contains details on environmental sensitivities and design considerations to mitigate, as far as possible, the effects of cable laying and associated protection during installation and operation of the Development.
Export Cable Plan (ECP)	
Emergency Response Co-operation Plan (ERCoP)	Ensures the co-operation with the Maritime and Coastguard Agency (MCA) by detailing the design parameters of the Development, emergency contact details, and processes to be followed. The ERCoP uses the template and guidance provided by MCA.
Fisheries Management and Mitigation Strategy (FMMS)	Sets out the approach to commercial fisheries liaison and mitigation during the construction of the Development and provides information on the role and responsibility of the Moray West Company FLO.
Operation and Maintenance Programme (OMP)	Sets out the procedures and good working practices for the O&M phase of the Development, considering sensitive environmental periods.
Piling Strategy (PS)	Piling methods and programme are detailed and includes the mitigation of the effects on noise sensitive species.
Project Environmental Monitoring Programme (PEMP)	Outlines the monitoring strategy for proposed monitoring to be undertaken pre-construction, during construction and post construction. This EMP will be updated to reflect Development environmental monitoring results as required.
Protocol for Archaeological Discoveries (PAD)	Provides procedures for reporting and investigation unexpected archaeological discoveries found during site investigations and construction, including a Written Scheme of Investigation (WSI).
Vessel Management and Navigational Safety Plan (VMNSP)	Provides the management and coordination of vessels to mitigate the impacts on other sea users.
Waste Management Plan (WMP)	Sets out the procedures ensures that all waste produced or held on a site is disposed of safely, efficiently and in accordance with the law.

1.4 Document Structure and Control

The structure of this EMP is provided in Table 1.2.

Table 1.2 EMP document structure		
Section	Title	Summary of Content
1	Introduction	An overview of the Development and its associated consent requirements, and an introduction to this EMP.
2	Environmental Management Framework	Defines the roles, responsibilities and communications of the Development's external and internal teams, as well as any training and awareness.
3	Environmental Management System	Main principles from Moray West's EMS and outlines the procedures to be taken should an incident occur.
4	Environmental Management and Mitigation Measures	Stipulates key mitigation and management measures for any effects on the natural environment caused by the Development, including commitments made in the EIA.
5	Performance Evaluation	Explains how the Development will monitor, evaluate and analyse ongoing environmental performance.
Appendix A	Defined Terms	Defines the terms to be used throughout this document.
Appendix B	Project Background Information	Detailed information of the Development. Including the construction programme, key stakeholders and legal context associated with the Development.
Appendix C	Transportation Audit Report (TAR)	Proformas
Appendix D	Dropped Objects Form	
Appendix E	Marine Pollution Contingency Plan	States the emergency response measures that will be executed in the event of an oil or chemical spill during construction and O&M phases of the Development.
Appendix F	Non-Compliance Reporting Proforma	Proforma

1.4.1 Document Control

This EMP is a 'live document' and will be regularly revised as relevant to ensure the information is kept up to date, at intervals agreed with the Scottish Ministers. Linkages exist between a number of offshore Consent Plans as highlighted in Section 1.3 within Table 1.1. As plans are updated, there will be a review of inter-linkages with other Consent Plans to ensure these are also updated as relevant. The document is controlled via Viewpoint For Projects, an electronic document management system, and the Quality,

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Health, Safety and Environment (QHSE) Manager has ultimate responsibility for ensuring that Health, Safety and Environment (HSE) related documents are revised in accordance with the relevant timescales.

At the time of writing (February 2022) the CMS has not yet been submitted to, or approved by, the Scottish Ministers. Once the CMS has been approved by the Scottish Ministers, this EMP will be updated where required in order to reference relevant parts of the CMS.

Prior to final commissioning of the Development, this EMP will be revised and updated to cover specific O&M working practices and potential environmental management issues set out in the approved OMP and sent to the Scottish Ministers for their written approval.

The updated EMP will focus on the activities associated with the O&M of the Development and incorporate any findings or lessons learned during the construction phase.

2 Environmental Management Framework

2.1 Roles and Responsibilities

This section sets out the roles and responsibilities of all relevant Development personnel during the construction phase, in relation to the delivery of this EMP. All Development personnel have a responsibility to comply with the requirements of the EMP; however, Figure 2.1 shows the key roles and linkages between the different roles and teams with respect to delivery of the EMP. Table 2.1 details the roles and responsibilities with respect to delivering this EMP.

The chain of command on site comes from Moray West and down through the contractors to any sub-contractors onboard the vessels carrying out offshore construction activities. Masters remain in command of their own vessels but will be directed by Moray West where appropriate. Moray West will have Offshore Client Representative(s) on each of the construction vessels who will be responsible for monitoring that the contractor complies with this EMP and reporting to Moray West. The hierarchy of compliance cascades from Moray West down through the contracting/sub-contracting organisations. Each is responsible for verifying the level of compliance of the one below in the hierarchy.

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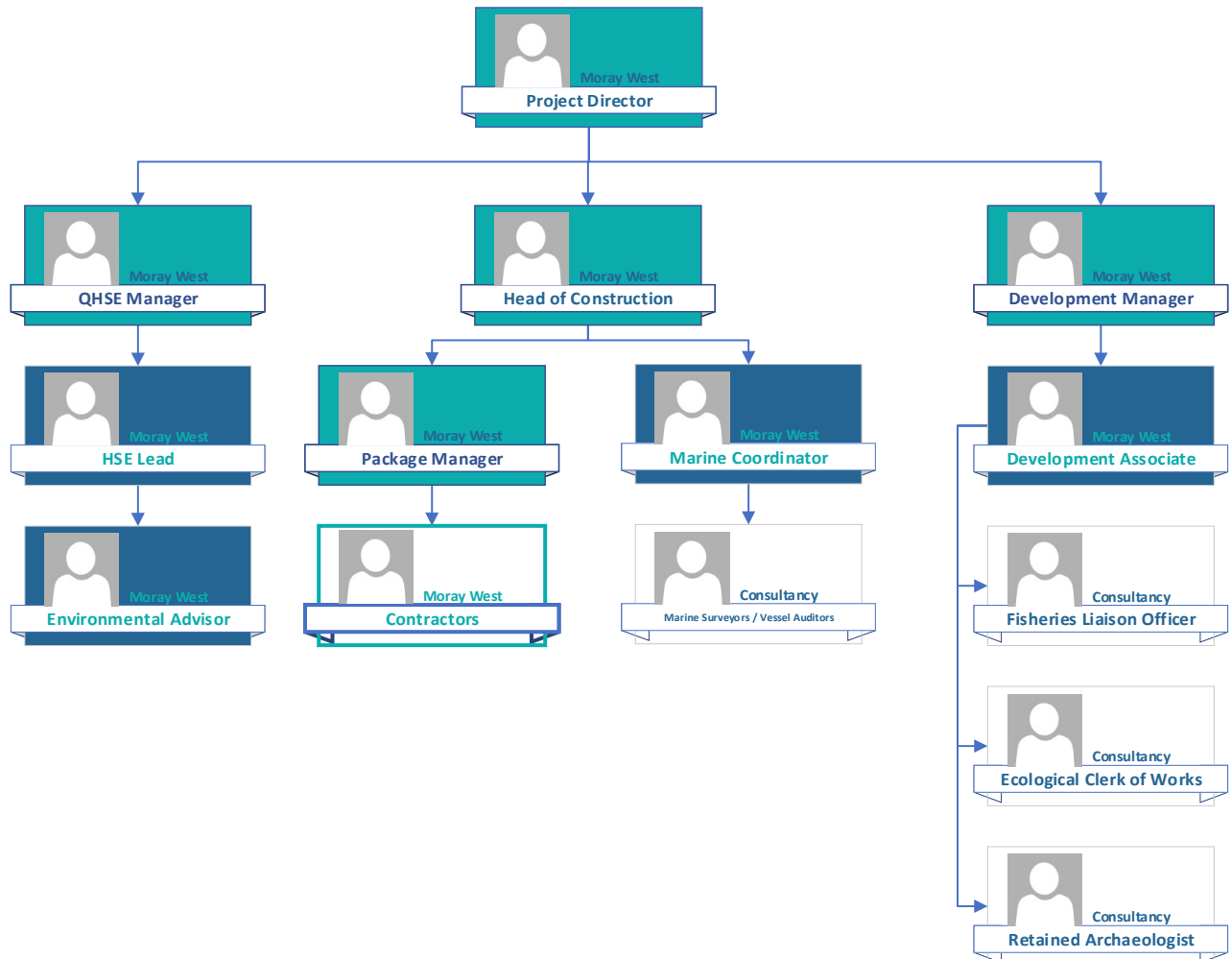


Figure 2.1 Organogram

Table 2.1 Key responsibilities of personnel relevant to this EMP	
Moray West Project Director	
Responsibilities:	<p>Ensure that sufficient resources and processes are in place to deliver/comply with the EMP and to manage potential environmental impacts:</p> <ul style="list-style-type: none"> • Approval of the EMP. • Ensure that provision is made for environmental management issues to form part of construction and operation progress meetings and inductions. • Ensure contractual obligations are established for Contractors in relation to this EMP.

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Moray West QHSE Manager	
Responsibilities:	<p>The Moray West QHSE Manager is responsible for providing support, advice and guidance on all aspects of Quality, Health, Safety, & Environmental (QHSE) management on the Development. Key responsibilities relevant to the EMP include the following:</p> <ul style="list-style-type: none"> • Coordinating the development, monitoring and implementation of Moray West QHSE management plans, which will be implemented alongside the EMP. • Ensure environmental impacts from construction works are reduced so far as is reasonably practicable and ensure that Contractor's risk assessments are reviewed. • Ongoing Development environmental performance monitoring. • Providing QHSE support, advice and guidance to all Moray West personnel and contractors. • Coaching of the Moray West Development team to facilitate improvements in QHSE performance.
Moray West HSE Lead	
Responsibilities:	<p>The Moray West HSE lead key responsibilities include:</p> <ul style="list-style-type: none"> • Day-to-day contact with Contractors. • Collation of performance data. • Inspection and audit. • Incident investigation. • Moray West focal point for deposits, chemicals, transport, waste, and equipment. • Emergency response liaison with the Marine Coordinator,
Moray West Head of Construction	
Responsibilities:	<p>The Moray West Head of Construction will oversee the management of construction activities of the whole Development ensuring that the Package Managers have the necessary resources to implement environmental management measures detailed within this EMP. Key responsibilities include:</p> <ul style="list-style-type: none"> • Ensure that environmental management measures are implemented and monitored across the Development during construction and operation. • Ensure that all personnel and Contractors assist and support the Environmental Clerk of Works (ECOW) / Development Associate where required, for example during on-site audits. • Ensure that any corrective actions arising from environmental audits are addressed. • Ensure Contractor and Subcontractor non-compliance is reported and addressed.
Moray West Package Managers	
Responsibilities:	<p>The Package Managers lead and manage the delivery of construction and O&M work packages. The Package Managers have the following responsibilities in relation to the EMP:</p> <ul style="list-style-type: none"> • Establishing and administering contractual obligations for Contractors in relation to EMP.

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	<ul style="list-style-type: none"> Responsible for ensuring that sufficient resources and processes are in place across their work package to deliver/comply with the EMP and to manage potential environmental risks. Ensuring that provision is made for environmental management issues to form part of work package progress meetings. Ensure provision is made for work package personnel to receive training from Moray West's ECoW specific to their role and responsibilities. Ensuring that all work package personnel and Contractors' personnel assist and support Moray West's ECoW where required, for example ECoW reporting and during walkdowns. Responsible for administering the contractual requirements in relation to incidence of Contractor non-compliance. Where applicable to the work package, ensuring that any corrective actions arising from environmental incidents and/or non-compliances are implemented by the relevant responsible contractor.
Moray West Development Manager	
Responsibilities:	<p>Ensuring ongoing compliance of the Development is ultimately the responsibility of the Moray West Development Manager, supported by the Development Associate and the ECoW. Key responsibilities in relation to this EMP include:</p> <ul style="list-style-type: none"> Reporting to and advising Moray West Project Director in relation to consenting related matters arising from the requirements of the EMP. Ensure that the Moray West Development Associate has sufficient resources and processes in place to implement and audit the environmental management processes required by this EMP. Ensure provision of resources from the Development Team to support the QHSE Manager in review of relevant Contractor documentation in line with this EMP.
Moray West Development Associate	
Responsibilities:	<p>Ensuring ongoing compliance with the EMP is ultimately the responsibility of the Moray West Development Associate, supported by the ECoW. The Moray West Development Associate will be responsible for all other reporting, returns and notifications to Marine Scotland – Licensing Operations Team (MS-LOT) and relevant stakeholders as required by the Development consents. Key responsibilities in relation to this EMP include:</p> <ul style="list-style-type: none"> Ensure compliance with the EMP, supported by the ECoW. Primary contact for MS-LOT, Moray Firth Regional Advisory Group (MFRAG), statutory bodies and stakeholders (excluding the responsibilities undertaken by Moray West's ECoW). Managing the process of obtaining new consents or monitoring consent applications made by Contractors / Principal Contractor(s) originated activities. Managing Moray West's Company Fisheries Liaison Officer (FLO) and Retained Archaeologist. Reporting to MS-LOT and MFRAG in respect to the PEMP.

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Moray West Environmental Advisor	
Responsibilities:	<p>The Environmental Advisor will support the HSE Lead as follows:</p> <ul style="list-style-type: none"> • Undertaking the day-to-day contact with contractors with matters relating to overall environmental management for the project. • Collation and reporting of environmental performance data. • Environmental incident investigations. • Carrying out Inspections and audits. • Monitoring of any deposits, chemicals, transport, waste, and equipment. • Assist with emergency response liaison with the MCC.
Marine Coordinator	
Responsibilities:	<ul style="list-style-type: none"> • Management of movement of vessels. • First point of contact for incident management
Moray West Environmental Clerk of Works (ECOW)	
Responsibilities:	<p>General responsibilities for Moray West's ECOW include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Quality assurance of final draft versions of all plans and programmes, including this EMP. • Responsible for monitoring compliance of the Development with the offshore consent conditions and Consent Plans. • Responsible for reporting on compliance and environmental issues to Moray West and to MS-LOT (including incident and near-miss reporting) (within the remit of the ECOW consents conditions). • Provision of on-going advice and guidance to Moray West in relation to achieving compliance with consent conditions, including but not limited to the conditions relating to and the implementation of the CoP, the CMS, the EMP, the PEMP, the PS, the CaP, the ECP and the VMNSP (and reporting to MS-LOT). • Provision of inductions and toolbox talks to onsite construction teams on environmental policy and procedures, including temporary stops, and keeping a record of these. • Monitor that the Development is being constructed in accordance with the Consent Plans (including this EMP), offshore consent conditions and in compliance with all relevant regulations and legislation. • Reviewing and reporting incidents and near misses to MS-LOT and reporting any changes in procedures as a result. • Work with contractors and Moray West QHSE and Development Team to establish practical environmental communication and reporting protocols. • Attendance at Moray West meetings and provide environmental input.

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	<ul style="list-style-type: none"> • Review of relevant Contractor documents from a compliance perspective, including contractor EMPs and risk assessments. • Direct liaison with MS-LOT, MFRAG, statutory bodies and stakeholders as required, including agreement of communication strategy. • Authority to halt or suggest modifications to activities that would lead to non-compliance provided that there are no overriding health and safety reasons for continuing with the activity, to be discussed with the Moray West Development Manager and authorised by the Moray West Project Director.
Moray West Company Fisheries Liaison Officer (FLO)	
Responsibilities:	<p>Responsible for establishing and maintaining effective communications between Moray West, Contractors, fishermen and other users of the sea during the construction phase. The Moray West Company FLO will provide information relating to the safe operation of fishing in the vicinity of the Development during construction. The responsibilities of the Moray West Company FLO in relation to the EMP are as follows:</p> <ul style="list-style-type: none"> • Establish and maintain effective communications between Moray West, Contractors, fishermen and other users of the sea concerning the Development and any amendments to the CMS and site environmental procedures. • Provide information relating to the safe operation of fishing activity within and in the vicinity of the Development Site. • Participate in the Moray Firth Commercial Fisheries Working Group (MFCFWG), to facilitate commercial fisheries dialogue. • Ensuring that information is made available and circulated to fishermen and other marine users in a timely manner to minimise interference with fishing operations and other users of the sea. • Monitor Development compliance with best practice guidelines and the Fisheries Management and Mitigation Strategy (FMMS). • Liaise with Moray West's ECoW regarding compliance with the FMMS. • Develop and deliver training on compliance with the FMMS to Moray West personnel including input to inductions, presentations and production of awareness material.
Moray West Retained Archaeologist	
Responsibilities:	<p>Moray West Retained Archaeologist will be responsible for advising Moray West on all archaeological matters relating to the Development that might impact upon archaeological and cultural heritage resources. The Retained Archaeologist has the following responsibilities:</p> <ul style="list-style-type: none"> • Assume clear role of interface between Moray West and Historic Environment Scotland (HES) in the event of a potential find or an infringement of an Archaeological Exclusion Zone (AEZ), as detailed in the Offshore Written Scheme of Investigation and Protocol for Archaeological Discoveries (WSI and PAD). • Liaise with Moray West's ECoW in the event of a potential find or an infringement of an AEZ. • Liaise with Moray West's ECoW regarding compliance with the WSI & PAD.

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	<ul style="list-style-type: none"> Develop and deliver training on relevant aspects of the WSI & PAD to Moray West personnel including input to inductions, presentations, and production of awareness materials.
Marine Warranty Surveyor / Vessel Auditors	
Responsibilities:	Assessment of vessel biosecurity arrangements and ensures vessels meet the standards required and are appropriate for the purpose of their prescribed roles.
Contractors	
Responsibilities:	<p>All Contractors shall ensure that their own procedures encompass and fully discharge the mitigation and management measures and commitments presented in this EMP. This EMP forms the framework and the minimum standards for all construction personnel and Contractors to comply with.</p> <p>Adherence to the Moray West EMP will be a contractual requirement and Contractors will be required to develop their own task-specific method statements and EMPs in accordance with the Moray West EMP, the implementation of which will be monitored by Moray West.</p> <p>The Contractors have the following responsibilities in relation to this EMP:</p> <ul style="list-style-type: none"> Ensure that sufficient resources and processes are in place to deliver/comply with this EMP and manage potential environmental impacts, including those of any subcontractors. Responsible for managing emergency responses and having the necessary equipment to respond to incidents such as a Tier 1 spill or dropped object (see Appendix F – MPCP for more details). Responsible for reporting directly to the Moray West ECoW and relevant Moray West Package Manager and Moray West QHSE Manager via Moray West Offshore Client Representatives. Responsible for implementing and discharging the required mitigation (control) measures on behalf of Moray West. Develop a contractor-specific EMP in line with the requirements of this EMP for Moray West review and comment. Comply with the requirements of the Moray West EMP as a minimum standard and look to include additional mitigation measures where appropriate. Ensure that the Moray West EMP is implemented by reviewing task specific Method Statements and Risk Assessments to ensure consistency and compliance with this EMP. Ensuring that subcontractors adhere to the requirements of this EMP, the Contractor EMP and Method Statements. Producing and maintaining records of activity on site and communicating those to the ECoW to enable reporting of compliance to MS-LOT. Liaising with the Moray West ECoW and FLO including securing compliance with halt notices or amendments to the CMS where approved by the Moray West Project Director.

2.2 Communications and Reporting

This section explains the opportunities for sharing and communicating environmental information.

2.2.1 EMP Distribution

This EMP is intended to be referred to by everyone involved in the construction and operation of the Development. Effective communication of its contents is key to successful implementation. In addition to digital copies to be shared with all contractors and sub-contractors, hard copies of this EMP are to be held in the following locations:

- Moray West's main project office in Edinburgh;
- all site offices dealing with marine operations;
 - the Moray West MCC;
 - the Contractors;
 - with the ECoW(s); and
- aboard any vessels carrying out the Works.

All personnel will be informed of the EMP, its function and where to access copies during the site induction. Contractors will be required to be familiar with the EMP and formally submit an acknowledgement of its contents to Moray West prior to starting works on site.

2.2.2 Moray West Internal Communications

There is a range of opportunities for the exchange and sharing of Development environmental information. These include:

- Project and company inductions.
- Moray West Project Meetings – HSE is a fixed agenda item.
- Moray West HSE Meetings – Moray West holds regular HSE-specific meetings with staff to ensure that people can raise concerns and get feedback on ongoing matters.
- Site Meetings – HSE is a fixed agenda item.
- Monthly Contractor meetings – HSE is a fixed agenda item.
- Periodical HSE Initiatives – periodically, there is a fresh HSE theme for promotion and discussion.
- Monthly HSE Reports – every month a full report of all Project HSE leading and lagging indicators is prepared and shared with the team.
- Task/area specific HSE toolbox talks – these will be held before tasks with specific HSE and/or environmental mitigation are undertaken.

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2.2.3 Moray West External Communications

Moray West Development Team supported by Moray West ECoW will liaise with MS-LOT and other stakeholders on matters relating to environmental management.

Moray West Development Team will participate in the MFRAG, or any successor group, to ensure effective environmental monitoring of the impacts of the Works are undertaken. The extent and nature of Moray West's participation in the MFRAG will be agreed by MS-LOT, and will include advising MS-LOT on research, monitoring and mitigation programmes for, but not limited to, ornithology, marine mammals, and commercial fish.

Table 2.2 below sets out the arrangement that will be used to provide the Scottish Ministers and relevant stakeholders (including, but not limited to, NatureScot, Scottish Environment Protection Agency (SEPA), the Royal Society for the Protection of Birds Scotland (RSPB), Maritime and Coastguard Agency (MCA) and Northern Lighthouse Board (NLB)) with regular reporting on construction activity, including any environmental reporting data and any issues that have been encountered, and how these have been addressed.

Table 2.2 External Communications		
Subject	Proposed Frequency	Relevant Stakeholders and Methods
ECoW compliance reporting, including construction progress and agreed environmental reporting criteria	To be confirmed with MS-LOT prior to the start of construction.	MS-LOT
Moray West Development Team and ECoW meetings with MS-LOT	As required (to be confirmed with MS-LOT prior to the start of construction)	MS-LOT
Moray West consenting updates	As required	MFRAG and other key stakeholders (as determined by MS-LOT)
Incident reporting (including accidental discharge of pollutants)	As required	MS-LOT, MCA
Dropped objects reporting	As required, within a 24-hour period from event	MS-LOT, MCA, Kingfishers at Seafish, NLB, UK Hydrographic Office (UKHO), Scottish Fishermen's Federation (SFF). Dropped Objects form can be found in Appendix E
Chemical usage (if required)	As required (in advance of chemical usage)	MS-LOT
TAR	Monthly	MS-LOT TAR template can be found in Appendix D

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Table 2.2 External Communications		
Subject	Proposed Frequency	Relevant Stakeholders and Methods
MFRAG	As required	Key stakeholders as required
MFCFWG	As required	MS-LOT, Marine Scotland Science (MSS), MS Policy, SFF
Notice to Mariners (NtM)	As required	Kingfisher Bulletins, local NtMs, Keeping Mariners Informed, and Moray West webpage for members of public
Weekly Notice of Operations	Weekly	Scottish Ministers and webpage for members of public
Vessel Reports	As required	Webpage for members of public

2.2.4 Moray West and Contractor Communications

During the Works, environmental management will be a standing item in all project meetings and will be part of established daily reporting when offshore. Moray West will have Offshore Client Representative(s) on each of the construction vessels who will be responsible for providing daily progress reports to the Moray West QHSE Team, the relevant Moray West Package Managers, Development Team and the ECoW (who would then report to MS-LOT as appropriate).

The Contractors shall ensure that they share environmental records with Moray West as required.

Full monthly reporting requirements for Contractors are included in Section 5. Contractors shall define their arrangements (schedule, frequency, etc.) for this in their respective EMPs.

2.2.5 Environmental Clerk of Works Communications and Reporting

The ECoW plays a key role in the delivery of the EMP; full responsibilities are stated in Table 2.1.

In practice, the ECoW will spend time on site (e.g., ports, cable landing site, and offshore) as required and will be available to all involved when needed when not on site and will be in regular contact with the Moray West Offshore Client Representatives.

The ECoW will establish communication channels with key personnel, including Moray West Development Team, Moray West QHSE Team, Marine Coordinator, Moray West Offshore Client Representatives, Company FLO, Retained Archaeologist, and Contractors (as appropriate). The ECoW will be available to support these teams as required.

2.2.6 Incident Reporting

Moray West have a responsibility to keep MS-LOT informed of any incidents which may be in the public interest. In the event of a breach of HSE obligations relating to the Development, and following any required statutory notifications, the Contractor will notify the Marine Coordinator who will in turn, notify

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the Moray West ECoW, relevant Moray West Package Managers and Moray West QHSE Manager. The Moray West Offshore Client Representatives will ensure this is done as soon as possible by the Contractor who will have prime responsibility for responding to any incident.

An incident response shall be executed in accordance with the Contractor's compliant response procedures, and/or procedures set out in the relevant Consent Plans. Contractors shall have in place a system for the investigation and analysis of incidents and accidents, whose focus should be on the identification of root causes. They shall share all details and reports relating to an investigation on the incident and issue an interim report(s) if the investigation is likely to take longer than two weeks. Where sufficient concern exists, Moray West HSE Lead and Moray West Environmental Advisor may also conduct its own investigation into an environmental incident with the Contractors supporting this as required.

The environmental incidents to which there are specific response procedures are listed in Table 2.3.

Table 2.3 Moray West incident reporting procedures	
Incident Type	Location of Response Procedure
Pollution incident (oil or chemical spill)	Appendix F - MPCP
Archaeology – infringement on AEZs or archaeological discoveries	Refer to the WSI and PAD
Dropped Objects	Section 3.2.2
Non-compliance with consents conditions or legal requirements	Section 5.5 and non-compliance reporting proforma (Appendix G)

Moray West, with support from the ECoW, will provide written notification of the nature and timing of the incident to MS-LOT within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach will be provided, in writing, to MS-LOT within a period of time to be agreed with MS-LOT.

2.2.7 Noise Registry

To ensure compliance with reporting requirements under the Marine Licence(s) conditions on marine noise, Moray West Development Team will complete and submit a proposed activity form in the online Noise Registry for all aspects of the Works that will produce loud, low to medium frequency (10 Hz-10 kHz) impulsive noise no later than seven days prior to Commencement of the Works¹. If any aspects of the Works differ from the proposed activity form in the online Noise Registry, Moray West's Development Associate will complete and submit a new proposed activity form no later than seven days prior to Commencement of the Works.

¹ "Commencement of the Works" means the date on which the first vessel arrives on the Site to begin carrying on any Licensed Activities in connection with the construction of the Works. Define in the offshore consents.

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Moray West shall complete and submit a close-out report for all aspects of the Works that produced loud, low to medium frequency (10 Hz – 10k Hz) impulsive noise in the online Noise Registry no later than 12 weeks after the Completion of the Works².

2.3 Training and Awareness

2.3.1 Development Staff Competence

In line with the overarching Project Health and Safety Management Plan covering Competence and Training Management standards, all Moray West personnel shall have the required skills, education, training, and experience to perform their tasks in a way that meet HSE objectives. A training matrix of skills required for relevant roles is provided within the Project Health and Safety Management Plan.

All roles are allocated a series of competency requirements and individuals are matched to those roles based on the extent to which they meet those requirements. The Moray West QHSE Manager and the Human Resources (HR) Manager will take the results of ongoing performance and potential appraisal processes and conduct a gap analysis on an annual basis. This gap analysis forms the basis of ongoing training and continuous professional development of which environmental competency and training forms part of this.

2.3.2 Contractor Competence

Moray West assesses overall competence and suitability of all contracted (individual and organisations) prior to working on the Development. Moray West shall always ensure that Contractors have sufficient resources of the required competence to meet contractual and environmental requirements.

A pre-qualification questionnaire is provided to potential Contractors to enable Moray West to evaluate the suitability of Contractors and forms part of a wider Contractor Selection and Management process. It is based closely on the British Standards Institute PAS 91, which is a publicly available specification (PAS) that sets out the content, format and use of questions that are widely applicable to pre-qualification for construction tendering. For Contractors to be eligible, it is necessary that they (and their suppliers) demonstrate that they possess, or have access to, the governance, qualifications and references, expertise, competence, health, safety, environmental, financial, and other essential capabilities to the extent necessary for them to be considered appropriate to undertake work and deliver services for Moray West.

All Moray West's Contractors are required to have a system in place that ensures any sub-contractors appointed are competent to perform their scope of work. Evidence that this system is in place and fit for purpose will be provided to Moray West on request and this system shall be audited by Moray West on a regular basis, e.g., following trend analysis.

² "Completion of the Works" means the date on which the Works have been installed in full, or the Works have been deemed complete by the Licensing Authority, whichever occurs first. Defined in the offshore consents.

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2.3.3 Induction Requirements

Moray West and Contractors shall ensure that all employees, sub-contractors, suppliers, and other visitors to the site are made aware of the content of this document that is applicable to them. This may be delivered as a targeted induction or as part of a larger site induction. The induction process shall include an assessment to verify that key information has been successfully conveyed to inductees. Inductions shall be carried out by Moray West HSE staff and the ECoW, as appropriate. Moray West shall audit this at least once annually (Section 5.4).

Regular updates on site, or task specific environmental commitments, shall be undertaken through the use of toolbox talks (Section 2.3.4).

Inductions to the site shall include, as a minimum:

- identification of specific environmental impacts associated with the work to be undertaken on site by the inductee;
- identification of specific environmental impacts which relate to specific areas of the site;
- any site, time or task specific mitigation that is required in order to comply with commitments made in the EIA Report, offshore consent conditions, relevant plans or other consent documents;
- summary of the main environmental impacts at the site as identified during the pre-construction surveys;
- role of the ECoW and contact details;
- environmental incident and emergency response procedures; and
- any other relevant information.

2.3.4 Toolbox Talks

Toolbox talks on environmental matters shall be delivered by the Contractors, Moray West HSE Lead, Environmental Advisor and ECoW (if required) during daily briefings, as required, and will provide specific information to personnel involved in certain activities. These talks will highlight environmental risks and confirm control measures to implement and mitigate the likelihood of the work impacting on the environment.

Subjects of relevance to the Works for inclusion within toolbox talks may comprise, but are not limited to:

- dealing with oil and chemical spills (see Appendix F - MPCP);
- minimising waste and waste management;
- general good environmental actions and 'house-keeping'; and
- environmental Incident Reporting.

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The ECoW shall support the delivery of toolbox talks and provide specialist input as required / requested. A record of all toolbox talks delivered by the ECoW, their content and the attendees will be maintained and recorded by the ECoW and reported back to MS-LOT.

Where there has been a problem or deterioration in environmental performance, Moray West and Contractors shall increase the frequency of toolbox talks.

2.3.5 Environmental Training

Moray West ECoW, supported by the Environmental Advisor, shall deliver environmental awareness training as necessary as part of its in-house training programme. The training may be supplemented by training packs, posters, leaflets, newsletters where required. For example, posters on specific procedures can be displayed on notice boards in the site office and on construction vessels.

Contractors shall prepare a full schedule of training (timing and content) and include this in their EMPs. The provision of environmental training will be audited on a regular basis (see Section 5.4).

2.3.6 Lessons Learned

Either as part of or, in addition to any audit, inspection or investigation, the Contractors shall conduct 'lessons learned' sessions as required. The Moray West HSE team, Development Team, and the ECoW will support in this process as required and may formally request that one takes place. The following instances may prompt a 'lessons learned' session:

- following a particular Development milestone or phase;
- following a particular operation;
- following a perceived shift in performance levels;
- following an audit;
- following an inspection; and
- following an investigation.

As a minimum, the Moray West Development Team and the Contractors shall conduct a joint-lessons learned session on an annual basis. Should this process, or any other, generate environmental information worth sharing, the Development Team shall inform MS-LOT and the wider industry.

3 Environmental Management System

The Moray West EMS forms part of an Integrated Management System (IMS) and applies to all activities under its direct control.

The Contractors working on the Development shall have an EMS appropriate to their scope of work. These systems shall be audited by the Moray West HSE department at an agreed frequency. This section includes some of the main principles from the EMS.

3.1 Risk Assessments and Method Statements

The Contractors shall have a method for the identification, assessing, controlling and monitoring risks to the environment associated with their scope of work.

As a minimum, Contractors will be required to undertake a risk assessment for each specific task. The risk assessment will identify any potential environmental hazards associated with the Works and, where appropriate, will ensure that suitable mitigation is identified and communicated to reduce the level of risk. Risk assessments will draw on lessons learnt from previous projects with the goal of improving environmental performance.

The level of risk assessment shall reflect the level of complexity and environmental risk associated. Contractors shall monitor aspects and impacts and update mitigation if necessary. All updates will be communicated to those affected by the activity, the Moray West QHSE Manager and Marine Coordinator.

3.1.1 Hazard Identification Risk Assessment (HIRA)

In addition to any general risk assessments, the Contractors shall also conduct Hazard Identification Risk Assessment (HIRA) workshops prior to commencement of Works and for subsequent key phases which will also consider the potential for environmental aspects and impacts. These shall be of an equivalent standard to the Moray West HIRA procedure.

The basic elements are:

- select chair;
- define scope and terms of reference;
- provide background reading:
 - drawings and maps;
 - manuals and procedures;
 - bills of quantities;
 - scopes of work;
 - contracts and memoranda of understanding; and
 - existing design files and aspect and impact registers;
- choose attendees;

- apply HIRA checklist; and
- document aspects identified.

The Moray West Environmental Advisor and ECoW shall be included in the HIRA's.

3.2 Seabed Deposits and Notification of Dropped Objects

3.2.1 Transportation Audit Reports (TAR)

The TAR is a reporting requirement under the Marine Licence(s) condition and keeps track of what has been licenced to be deposited on the seabed. Anything outside of that is an unintentional dropped object that is reported separately (see Section 3.2.2).

In order to comply with condition 3.2.3.1 of the Marine Licence(s), each Contractor is required to collect all the required information for the TAR, including a record of all materials, equipment and components being loaded and transported and deposited under the licensable activities permitted by the Marine Licences and will issue these to the Environmental Advisor on a monthly basis. The Moray West Environmental Advisor must compile and complete the TAR for each calendar month during the period when construction of the Works is undertaken.

The TAR (included in Appendix D) must be submitted by the ECoW to MS-LOT within 14 days of the end of each calendar month and include information on:

- the nature and quantity of all substances and objects deposited on the seabed and materials used in construction in each calendar month for each of the Moray West Marine Licences (Wind Farm and OfTI).

3.2.1.1 Nature and quantity of substances and objects deposited and materials used in construction

The requirement to record and report substances and objects deposited on the seabed during the Works, arises from specific requirements in the Marine Licence(s). Moray West personnel and Contractors shall ensure that any debris, waste material or equipment placed below Mean High Water Springs (MHWS) level during the construction of the Development is removed from the Site as soon as is reasonably practicable, unless otherwise agreed by MS-LOT, for disposal at a location above the MHWS level, the location of which shall be approved by SEPA or such other relevant authority if disposal is to take place outwith Scotland.

Moray West personnel and Contractors shall ensure that, where practicable, all substances and objects deposited and all construction materials used during the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.

Moray West shall, no later than one calendar month following the Completion of the Works, submit a final audit report, in writing, to MS-LOT stating the nature and quantity of all substances, objects placed below MHWS and all materials used in construction within the Scottish marine area under the authority of the Marine Licence. The final audit report shall be compiled by the Moray West Environmental Advisor and reviewed by the Moray West Development team prior to submission to MS-LOT.

3.2.2 Dropped Objects

The requirement to record, notify and potentially recover objects lost or accidentally deposited on the seabed during the Works arises from specific requirements in the Marine Licence(s).

Consideration should be given to minimising, wherever possible, the potential for objects to be dropped or otherwise accidentally deposited. Each Contractor should have its own process for ensuring equipment and materials are adequately stored and controlled and that staff are adequately trained and briefed on avoiding dropped objects or accidental deposits and, in the event that they do occur, on this notification procedure. These processes should be highlighted within the Contractor's EMP.

When determining which materials to report, Contractors are advised to report any lost/dropped object if they're unsure of the hazard it might cause. The following should be considered:

- Material deposited under conditions of force majeure³, excluding material legally deposited in accordance with the requirements of, or exemptions from relevant legislation, must be reported to MS-LOT.
- Materials that are particularly resistant to rot, can foul the propellers of vessels and present a very real hazard to divers and submersibles. They also constitute a significant hazard to marine life.
- Plastic sheeting, bags and containers can block the cooling water intakes of vessels of all sizes as well as constitute a significant hazard to marine life.
- Materials that may represent a hazard to vessels and/or interfere with navigation.
- Materials that may snag and damage fishing nets, resulting in lost fishing time or in extreme cases, threaten the safety of the fishing vessel.
- Materials lost or discarded at sea may be moved considerable distances by currents and tides and may eventually have a significant impact not anticipated at the 'dropped' location.

No material should be intentionally discarded at sea, except material that is legally deposited in accordance with the requirements of relevant legislation or deposited under conditions of force majeure. The latter is only relevant if the dumping is necessary to secure the safety of the vessel, installation or crew:

- A health and safety risk assessment must be carried out to inform whether the object should be left, or if it can be retrieved. The retrieval of the object(s) should be discussed with MS-LOT. It is encouraged that every attempt is made to retrieve the object where safe to do so; however, where this is not achievable, that should be explained.

³ Force majeure may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel or vehicle operator determines that it is necessary to deposit the substance or object other than at the Site because the safety of human life or, as the case may be, the vessel, vehicle or marine structure is threatened. Under Annex II, Article 7 of the OSPAR Convention, MS-LOT are obliged to immediately report force majeure incidents to the OSPAR Commission.

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If any Contractor, or the Moray West Development Team or the ECoW, through review of the TAR, becomes aware of any substance or objects on the TAR that are missing, or an accidental deposit occurs (for example by personnel observing or reporting that an object has been lost) the responsible Contractor will log the loss as soon as becoming aware of the incident. **Note that every reasonable measure should be taken to immediately retrieve dropped objects where this is considered reasonably practicable** (a Marine Licence will not normally be required for such recovery under the Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011 and the Marine Licensing (Exempted Activities) (Scottish Offshore Region) Order 2011, amended by the Amendment Order 2012).

In the event of any object being lost overboard, or dropped to the seabed, the Contractor shall inform the Marine Coordinator immediately. A dropped objects form (included in Appendix E) must be completed by the Contractor and submitted to all relevant organisations no later than 24 hours after the object has been dropped (or as soon as possible where there is likely to be a significant hazard to other sea users). The Marine Coordinator will inform the Moray West QHSE Manager when the situation allows, who will then disseminate information to all necessary parties. The Moray West HSE Lead, via the Development Team and ECoW, shall consult with MS-LOT for advice on the appropriate remedial action if any.

In the case of dropped objects due to force majeure the Marine Coordinator must notify MS-LOT of the full details of the circumstances of the deposit within 48 hours of the incident occurring (failing which as soon as reasonably practicable after that period of 48 hours has elapsed).

When completing the dropped objects form, it is only a requirement to send a copy to relevant contacts for the dropped object(s), and not all contacts listed on the form. These include: MS-LOT, MCA, Kingfisher, NLB, UKHO, the local HM Coastguard (Moray Coastal Operations), and SFF.

MS-LOT must also be notified of any activities undertaken to recover dropped objects which were not successful (or are considered unlikely to be successful) or that are planned (but may take some time) at the time of notification.

3.3 Environmental Compliance Register

The Environmental Compliance Register will form part of an overall legislation register in the Moray West IMS.

3.4 Marine Pollution and Contingency Plan

An MPCP has been prepared to minimise environmental impacts in response to a hydrocarbon spill associated with the Development. The MPCP can be found in Appendix F.

Contractors shall comply with the requirements of the MPCP and ensure their own arrangements (e.g. ship oil pollution emergency plan (SOPEP)) are aligned.

3.5 Chemical Usage

As required under Marine Licence(s) conditions, Moray West shall ensure that all chemicals in an open system which are to be utilised during construction have been approved in writing by MS-LOT prior to

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use. The Moray West Development Associate shall seek approval from MS-LOT, in writing, no later than one month prior to its intended use (or such other period as agreed by MS-LOT). Types of chemicals to be used in a closed containment system only require notification to MS-LOT prior to use.

To ensure compliance with condition 3.1.8 of the Marine Licence(s), all Contractors shall provide, to the Moray West QHSE Manager and the Development Team, a comprehensive list of all chemicals to be used prior to each phase of the Works. Any additional chemicals or amendments made to the list mid-works phase should be sent to the QHSE Manager and Development Team prior to them being used, who will then submit to MS-LOT for approval.

If the proposed chemical is on the Offshore Chemical Notification Scheme (OCNS) list, the approval request shall include the chemical name, volume or quantity estimated to be used, the OCNS list grouping or rank and the proposed frequency of use.

If the proposed chemical is not on the Offshore Chemical Notification Scheme (OCNS) list, the approval request shall include details of chemical to be used, including safety data sheet, depth and current at the site, quantities or volumes and the proposed frequency of use.

The Contractor will notify the Moray West Development Team who will notify MS-LOT of the types of chemicals to be used in a closed containment system prior to use. The Contractor shall take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages will be reported to MS-LOT as soon as practicable.

Moray West will require that all Contractors comply with the Marine Licences condition 3.1.8 throughout the construction and O&M phase of the Development. In addition, Moray West will require that all Contractors have in place appropriate procedures for the use, transport and storage of chemicals during the Works.

3.6 Fluorinated greenhouse gases

Moray West personnel and Contractors shall ensure that all equipment to be utilised in the Works which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases ("F-Gas Regulation") or mixtures containing any of those substances) must take precautions to prevent the unintentional release ('leakage') of those gases.

In order to comply with the Marine Licence(s) condition 3.1.9, Moray West will require all Contractors to take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases. Where leakage of fluorinated greenhouse gases is detected, Contractors shall ensure that the equipment is repaired without undue delay.

Contractors shall ensure that all equipment to be utilised in the Works that contain fluorinated greenhouse gases in quantities of five tonnes of CO₂ equivalent or more, and not contained in foams, are checked for any leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks

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must be kept in accordance with Article 6 of the F-Gas Regulation. These records must be submitted to the Moray West Development Team who will then submit them to MS-LOT annually, as well as immediately in the event of a discovery of leakage.

Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, the Contractor shall ensure that the equipment is checked by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, the Moray West Development Team or ECoW will notify MS-LOT of the date of discovery, date of repair and date of inspection.

3.7 Bunding and Storage

In order to comply with Marine Licence(s) condition 3.2.1.2 and to ensure pollution prevention is undertaken, all Contractors shall ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils and lubricating fluids associated with the Works, plant and equipment into the marine environment.

Requirements for bunding and storage are written into the Method Statement Risk Assessments (MSRA), and the Contractors' own EMPs.

3.8 Waste Management

Moray West has prepared a Waste Management Plan (WMP) for the Development to deal with all aspects of waste produced during the construction period. The WMP includes details of contingency planning in the event of accidental release of materials which could cause harm to the environment, and uses the waste hierarchy of reduce, reuse and recycle wherever possible.

The Contractor shall provide to the Moray West Environmental Advisor, estimates of approximate waste generation for the duration of the works which shall be done prior to works starting and records of actual waste generated throughout the works.

3.9 Emergency Response Plan

Moray West has prepared an Emergency Response Plan (ERP) for the Development, this is available to all those affected in cases of emergency. There is an obvious link and overlap between the EMP, ERP, ERCoP and MPCP as an incident might require a pollution response, emergency response, and environmental management as set out in this document.

The Contractors shall have their own ERPs, specific to their scope of work, that align with Moray West ERP and ensure that the interfaces are clear.

3.10 Marine Coordinator

A project Marine Coordinator Centre (MCC) will be established from where offshore construction activities will be coordinated and a dedicated team will be appointed to perform the role of Marine Coordinator. The Marine Coordinator will coordinate day-to-day vessel activity in the Development area by providing a logistical oversight for the transportation of materials and personnel. The Marine

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Coordinator will also act as a first point of contact for incident management and a significant resource in the implementation of this EMP.

4 Environmental Management and Mitigation Measures

The requirement to construct and operate the Development in accordance with the environmental management and mitigation measures identified in the Application arise from specific requirements in the consents related to this EMP (Condition 3.1.10 of the Marine Licences, see Appendix B for Condition details). The following sections set out in this EMP (and the other referenced Consent Plans in Table 1.1) are in accordance with the commitments made in the EIA Report. In addition, this section incorporates any other commitments relevant to environmental management and mitigation arising from the Marine Licence and S36 consent conditions.

4.1 Biosecurity

Moray West has prepared an Offshore Biosecurity Management Plan (BMP) following the guidance of NatureScot's 'Marine Biosecurity Planning Guidance for Producing Site and Operation-Based Plans for Preventing the Introduction of Non-Native Species'⁴, which aims to highlight the required control measures in order to prevent the introduction or spread of Marine Invasive Non-Native Species (MINNS) as a consequence of the Development. Moray West shall ensure that the risk of transferring MINNS to and from the site is kept to a minimum by ensuring appropriate biosecurity management practices are implemented during the Works.

The Moray West Offshore BMP provides details of all relevant UK Guidance and necessary systems, documentation and certificates which will need to be in place to ensure compliance, and includes measures to:

- Assess biosecurity risks of site features, vessels, and site activities which could potentially introduce or spread non-native species to the area;
- Prevent the introduction or spread of MINNS;
- Mitigate against negative MINNS impacts, and create a contingency plan in the case of introduction or spread;
- Detail biosecurity control measures and assign responsibility;
- Manage supply chains, inform all construction personnel, and manage vessels;
- Survey, report and record any MINNS presence or biofouling incidents;
- Undertake a review of the BMP and identify the need for any further studies or actions.

The Contractors shall ensure that their vessels comply with the requirements and provide all suitable documented evidence, as set out in the Offshore BMP including ballast water management, anti-fouling systems, and equipment cleansing.

4.1.1 Ballast Water Management

Vessels contracted to work on the Development are required to follow current UK guidance on ballast water management and to be compliant (where applicable) with the International Convention for the

⁴ Payne *et al.*, 2014. [Marine Biosecurity Planning](#)

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Control and Management of Ships' Ballast Water and Sediments (BWM Convention entered into force internationally on 8 September 2017).

Contractors are required to submit a biosecurity plan that provides evidence of:

- A ballast water and sediment management plan which assists in the minimisation of non-native species through safe and effective procedures for ballast water management;
- For vessels with Ballast Water Management (BWM) plan, the relevant certification or declaration.

In addition, the Vessel Masters/Operators will be required to make the Ballast Water Record Book available to the Moray West QHSE Manager and Marine Coordinator.

4.1.2 Anti-Fouling Systems

Vessels contracted to work on the Development for any purpose will be required to follow current UK guidance on the use of hull anti-fouling systems (AFS) and to be compliant (where applicable) with The Merchant Shipping (Anti-Fouling Systems) Regulations 2009.

Contractors are required to provide all certificates, declarations and other relevant documentation to the Moray West QHSE Manager and ECoW as part of the vessel biosecurity plan. This should include details of how any macro fouling material and waste-water will be disposed of in accordance with relevant authority biosecurity plans.

4.1.3 Equipment Cleaning

Contractors shall provide the Moray West QHSE Manager and ECoW with information regarding equipment cleaning procedures.

All submergible equipment must be washed with fresh water prior to arriving on site. In all cases, time in air between different water bodies must be allowed to ensure equipment is dry before use on site and must be subject to pre-use and post-use checks including checks for the presence of marine growth.

4.2 Marine Animals

The Moray Firth has resident bottlenose dolphins, and the area is regularly visited by other marine animals, which are sensitive to noise disturbance, including harbour porpoise, minke whale, harbour seal, grey seal, Atlantic salmon and sea trout. The export cable route also lies within the Southern Trench Marine Protected Area, which is protected for, amongst others, minke whale, burrowed mud, fronts, and shelf deeps.

Moray West shall ensure that all personnel adhere to the Scottish Marine Wildlife Watching Code (SMWWC), vessel management procedures as outlined within the VMNSP and any European Protected Species (EPS) Licence conditions applied for, where appropriate, during all authorised construction, and O&M activities.

The following documents have been prepared to manage and mitigate the effects on marine animals (see Table 1.1):

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- Piling Strategy (PS);
- Vessel Management and Navigational Safety Plan (VMNSP);
- Cable Plan (CaP); and
- Export Cable Plan (ECP).

The content of these documents is not reproduced here, but Contractors shall be provided with copies of these documents and will be required to be compliant with their contents.

4.3 Marine Archaeology

There are no known seabed prehistory sites within the footprint of the Development; however, the paleogeographic assessment of the pre-consent geophysical data has demonstrated the potential for the presence of as yet undiscovered in-situ prehistoric sites and finds. In the event of discovering an object, the Contractors shall follow the process outlined within the WSI and PAD.

4.4 Unexploded Ordnance

As an unexploded ordnance (UXO) survey and clearance programme will be completed prior to start of construction activities, the risk of discovering previously unidentified UXO has been reduced to ALARP. However, in the event of a UXO discovery, the Contractors shall inform the Marine Coordinator immediately, who will in turn contact the Moray West QHSE Manager and Moray West Development team.

In the unlikely event of needing to detonate a UXO during construction, MS-LOT will be consulted (a separate Marine Licence and EPS Licence will be sought, as required) and the Joint Nature Conservation Committee (JNCC) guidelines for mitigating impact upon marine mammals will be followed. UXO risk is addressed within the ERP.

Moray West will consult with, and engage, a recognised, competent UXO disposal company for the safe handling and disposal of any UXO.

4.5 Vessel-Related Requirements

Moray West requires that all construction and O&M vessels entering the site meet the required, recognised standards and will comply with international maritime rules (as adopted by the relevant flag state) and regulations. Moray West requires that all construction and O&M vessels will comply with the procedures and requirements set out in this EMP and in other relevant documents as shown in Table 1.1.

Moray West will engage with Marine Warranty Surveyors / Vessel Auditors who will conduct independent vessel suitability surveys on construction and operational vessels as necessary to check that they meet these standards and are appropriate for the purpose of their prescribed roles.

4.5.1 Air Pollution

Air pollution from vessels, and in particular the emission of sulphur and nitrogen compounds (SO_x and NO_x) and Ozone-Depleting Substances (ODS) is strictly controlled by regulations that implement the

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International Convention for the Prevention of Pollution from Ships (MARPOL) and its various annexes and protocols. MARPOL Annex VI, which is specifically about air pollution, has 19 separate regulations, as well as a code for controlling nitrogen oxide emissions.

Contractors shall ensure vessels at the Moray West site comply with this Convention as part of their own operating procedures. This shall be done through pre-mobilisation vessel audits.

4.5.2 Seabed impact

The following sections address requirements relating to the seabed.

4.5.2.1 Jack Up Operations

Jack up operations shall comply with the requirements of the following:

- Moray West marine management and vessel acceptance procedure:
 - vessel inspection and auditing;
 - documentation; and
 - equipment requirements;
- Moray West marine coordination and control procedure:
 - scheduling and planning;
 - access conflicts;
 - weather reporting; and
 - general navigational issues.
- Moray West Seabed Management Plan:
 - movement around structures.

4.5.2.2 Vessel Anchoring

Any instances of vessel anchoring shall comply with the requirement of the:

- Moray West marine management and vessel acceptance procedure;
- Moray West marine coordination and control procedure; and
- Moray West Seabed Management Plan

4.6 Restoration of site to original condition

As required under Condition 3.2.4.7 of the Marine Licences, Moray West shall take all reasonable, appropriate and practicable steps at the end of the operational life of the Development to restore the Site to its original pre-construction condition, or to as close to its original condition as is reasonably practicable, in accordance with the PEMP and the DP, and to the satisfaction of MS-LOT. A separate Marine Licence will be required for the Decommissioning of the Development.

5 Performance evaluation

This section explains how Moray West will monitor, evaluate and analyse the ongoing environmental performance of the Development, the Contractors, and the implementation of the EMP.

5.1 Environmental Monitoring

Moray West has produced a separate PEMP, which presents measures to monitor any effects of the Works and has been prepared in consultation with MS-LOT, MSS, NatureScot, SFF, the Highland Council and MFRAG.

The PEMP includes monitoring of the following receptors:

- birds;
- marine mammals;
- commercial fisheries;
- socio-economic; and
- benthic communities.

The EMP has been prepared taking into account available baseline monitoring data. Monitoring data collected as part of the PEMP will be considered on future revisions of the EMP.

5.2 Key Performance Indicators

In addition to the monitoring activities contained in the PEMP, the EMP has a number of Key Performance Indicators (KPIs) that apply to the Contractors. These are intended to generate the data required to demonstrate current and future levels of compliance to both Moray West and MS-LOT. Contractors shall submit a report of their monthly and cumulative performance figures to the Moray West QHSE Manager and the ECoW by the end of the first working week of each month during the construction phase of the Development.

Table 5.1 Key Performance Indicators

Key Performance Indicator Title	Details	Measure
Environmental incidents and near misses	All environmental incidents and near misses	Number of environmental near misses
Environmental audits	Audits performed on site	Number of audits
Environmental inspection	Inspections performed on site	Number of inspections
HSE observation cards	Cards submitted (+ive / -ive)	Number of cards and content of cards
Environmental toolbox talks	Number of TBTs conducted	Number of toolbox talks

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Table 5.1 Key Performance Indicators

Key Performance Indicator Title	Details	Measure
Drills (led and/or observed)	Number of environmental and safety drills held	Number of drills
Environmental training	Number of people involved in environmental training sessions	Number of attendees
Licence or Condition breaches	Determination from outputs of environmental incident reporting and audits	Deviations from agreed design or method as set out in the consent discharge documents
Emergency communication protocols	Knowledge of reporting chain / ability to communicate correctly in an emergency	Pass / fail

5.3 Inspection

Moray West shall conduct regular environmental inspections of the Development as part of routine activities. This may be done by a range of personnel and shall focus on the Contractor's level of compliance. Offshore, much of this will be done by the Moray West Offshore Client Representatives.

Furthermore, any persons authorised by MS-LOT must be permitted to inspect the Development at any reasonable time. As far as reasonably practicable, Moray West shall, on being given reasonable notice by MS-LOT (of at least 72 hours), provide transportation to and from the Site for any persons authorised by the Licensing Authority to inspect the Site.

Subject to reasonable notice, the Contractors shall support these inspections by facilitating access (either through provision of space on a crew transfer vessel (CTV), or space onboard a vessel onto which the persons will transfer) and ensure that they have their own arrangements set out in their EMPs.

5.4 Audit

Environmental auditing is an essential tool to ensure all Development environmental requirements are being fully implemented and environmental performance is continually improved. Audit requirements are set out in the following sections.

5.4.1 Moray West Internal Audit

Moray West shall ensure that a party independent of the Moray West Development Team shall audit the internal application and ongoing suitability of the EMP on an annual basis. This may cover any aspect of the EMP, but the priority will be the effectiveness of Moray West's monitoring of the Contractors.

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5.4.2 Moray West Client Audit or Inspection

Moray West's ECoW, the QHSE Manager/ Lead, and the Moray West Offshore Client Representatives shall audit or inspect the Contractors at a frequency to be agreed. This will be no more frequent than monthly. Where possible, these shall be combined with any audits being conducted by the Contractors themselves.

5.4.3 Contractor Audit

The Contractors shall set out an indicative schedule for their own internal EMP auditing. They will be required to show evidence on a monthly basis to the Moray West ECoW and the Moray West QHSE Manager that they are complying with their audit schedule and that they are closing out actions in a timely manner.

5.5 Evaluation of Consent / Licence Compliance

The ECoW shall, through a combination of their monitoring, inspections and audits, produce an evaluation of ongoing compliance with the Section 36 Consents and Marine Licence conditions, and the relevant legislations. This shall be documented through the ECoW compliance reports and submitted to MS-LOT.

The Moray West QHSE Manager shall also evaluate environmental legal compliance as part of the company's Evaluation of Compliance Procedure. This shall be done on an annual basis, following a suspected non-compliance, or as a consequence of trend analysis.

5.6 Analysis and Evaluation

5.6.1 Monthly Analysis and Evaluation

All information generated in support of the EMP (audits, monitoring, KPIs, lessons learned, etc.) shall be analysed on a monthly basis by the Moray West QHSE Manager. This is to identify any early warnings or short-term trends that suggest the Contractors are close to non-compliance.

5.6.2 Annual Analysis and Evaluation

All information generated in support of the EMP (audits, monitoring, KPIs, lessons learned etc.) shall be analysed on an annual basis. This shall be co-ordinated by the Moray West QHSE Manager, with the support of the ECoW and the Moray West Development Manager. The output of this will be an annual report for the Moray West Project Director and Moray West Board.

5.7 Management Review

The Moray West Project Director and Moray West Board shall review the annual environmental performance report and make recommendations for change or improvement.

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Appendix A – Defined Terms

Term	Description
Design Envelope	The range of design parameters used to inform the assessment of impacts.
Marine Licence for the Generating Station	Marine Licence for the Moray West Offshore Wind Farm - Licence Number: MS-06763/19/0 - granted under the Marine and Coastal Access Act 2009, Part 4 Marine Licensing for marine renewables construction works and deposits of substances or objects in the Scottish Marine Area and the UK Marine Licensing Area granted to Moray West on 14 June 2019.
Marine Licence for the Transmission Works	Marine Licence for the Offshore Transmission Infrastructure – Licence Number MS-06764/19/0 – granted under the Marine and Coastal Access Act 2009, & Marine (Scotland) Act 2010, Part 4 Marine Licensing for marine renewables construction works and deposits of substances or objects in the Scottish Marine Area and the UK Marine Licensing Area (referred to as the “OfTI Marine Licence”), granted to Moray West on 14 June 2019.
Moray Offshore Windfarm (West) Limited	The legal entity submitting this Environmental Management Plan (EMP).
Moray West EIA Report	The Environmental Impact Assessment Report for the Moray West Offshore Wind Farm and Associated Transmission Infrastructure, submitted August 2018.
Moray West Offshore Wind Farm	The wind farm to be developed in the Moray West site (also referred as the Wind Farm).
Offshore Consents	Collective term for the two Marine Licences and the Section 36 consent
Offshore Consent Conditions	Collective term for the conditions attached to the Section 36 Consent and Marine Licences
Offshore Transmission Infrastructure (OfTI)	The offshore elements of the transmission infrastructure, comprising AC OSPs, AC OSP inter-connector cables, and AC export cables offshore to landfall.
OfTI Corridor	The export cable route corridor, i.e., the OfTI area excluding the Moray West site.
Section 36 Consent	Section 36 consent under Section 36 of the Electricity Act 1989 for the construction and operation of the Moray West Offshore Wind Farm was granted on 14 June 2019.
The Development	The Moray West Offshore Wind Farm and OfTI.
The Development Site	The area outlined in Figure 1 attached to the Section 36 Consent Annex 1, Figure 1 attached to the two Marine Licences, and Figure B.1 of this EMP.
The Moray West Site	The area in which the Moray West Offshore Wind Farm will be located. Section 36 Consents and associated Marine Licence to construct and operate generating stations on the Moray West Site were granted in June 2019.
The Works	The construction and O&M activities undertaken for the Development.
Transmission Infrastructure (TI)	Includes both offshore and onshore electricity transmission infrastructure for the consented wind farm. Includes connection to the national electricity transmission

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	system near Broad Craig in Aberdeenshire encompassing Alternating Current (AC) Offshore Substation Platforms (OSPs), AC OSP interconnector cable, AC export cables offshore to landfall point at Broad Craig, near Sandend in Aberdeenshire continuing onshore to the AC collector station (onshore substation) at Whitehillock and the additional regional Transmission Operator substation at Blackhillock near Keith. A Marine Licence for the OfTI was granted in June 2019.
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Appendix B – Development Background Information

B.1 Development Description

Moray West Offshore Wind Farm is being developed by Moray Offshore Windfarm (West) Limited (Moray West; Company Number 10515140) who are registered at Octagon Point, 5 Cheapside, London, England, EC2V 6AA. Moray Offshore Windfarm (West) Limited is a wholly subsidiary of Moray West Holdings Limited which in turn is owned by Moray Offshore Renewable Power Limited, Delphis Holdings Limited, EDP Renewables Europe, S.L.U and UAB Ignitis Renewables. Ocean Winds is the name of this joint venture and are leading the development of Moray West.

The Moray West Site covers an area of approximately 225 km² on the Smith Bank in the Outer Moray Firth approximately 22 km from the Caithness coastline.

The Moray West Offshore Wind Farm will comprise 60 wind turbine generators (WTGs), associated substructures and seabed foundations, inter-array cables and any scour protection around substructures or cable protection. The OfTI comprises up to two offshore substation platforms (OSPs) which will be located within the Moray West Site, one OSP interconnector cable and two offshore export cable circuits which will be located within the offshore export cable corridor and will be used to transmit the electricity generated by the offshore wind farm to shore.

The offshore export cable circuits will come ashore at Sandend Bay, which is located on the Aberdeenshire Coast at Broad Craig, approximately 65 km south of the Moray West Site. There will be two underground circuits from landfall at Sandend Bay to Whitehillock where the onshore substation will be located. There will also be further underground cabling between Whitehillock substation and Blackhillock substation. Moray West will transfer ownership of the transmission asset to an Offshore Transmission Owner (OFTO) who will manage the transmission infrastructure.

Figure B.1 displays a map of the Moray West offshore wind farm and OfTI.

The development is aiming to be fully operational in 2024/25 with an operational life of 25 years from the date of final commissioning of the Development.

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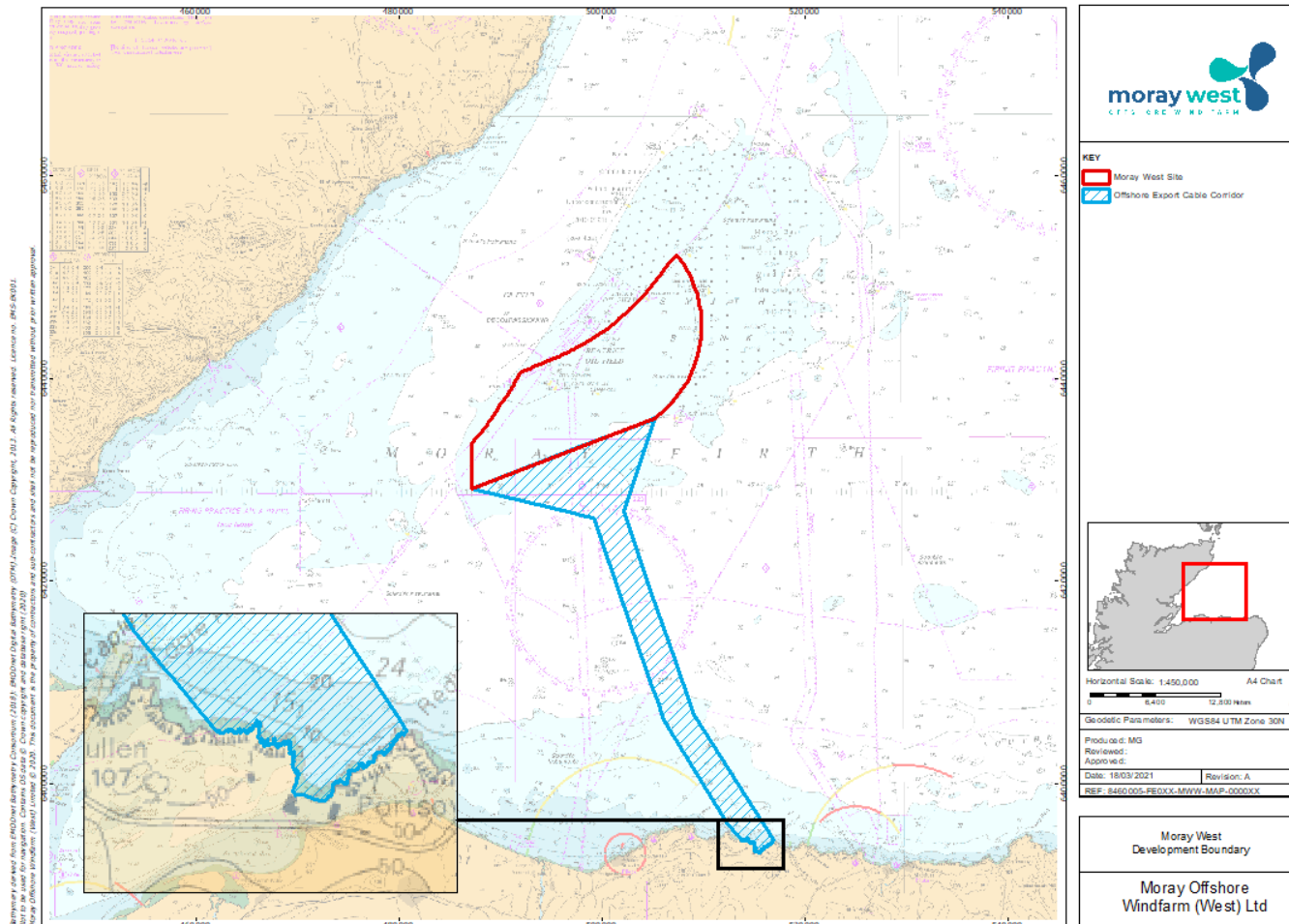


Figure B.1 Geographical location of the Moray West site and OfTI.

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B.2 Construction Programme Milestones

The key milestone dates associated with the construction activities of the Development are presented in Table B.1.

Details of the programme for construction are provided in the Construction Programme (CoP).

Table B.1. Key Milestones Dates	
Milestone	Anticipated Programme
First Generation	April 2024
Final Commissioning	November 2024
Wind Farm	
Commencement of Wind Farm Construction	October 2023 (following Scour protection installation July 2023 – September 2023)
OfTI	
Commencement of OfTI Construction	December 2022

B.3 Legal Context

Table B.2 provides a list of S36 and Marine Licence consent conditions relevant to this EMP and how they are addressed within it.

Table B.2. Consent conditions to be discharged by this EMP		
Consent Condition Reference	Condition	Addressed
S36 consent Condition 14 and Wind Farm / OfTI Marine Licence Condition 3.2.2.11 / 3.2.2.10	The Company must, no later than six months prior to the Commencement of the Development, submit an Environmental Management Plan ("EMP"), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Development cannot take place until such approval is granted.	This document sets out the EMP for approval by the Scottish Ministers. Consultation to be undertaken by the Scottish Ministers.
	The EMP must provide the over-arching framework for on-site environmental management during the phases of development as follows: a) All construction as required to be undertaken before the Final Commissioning of the Development; and	This EMP provides the framework for environmental management during the construction and

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Table B.2. Consent conditions to be discharged by this EMP

Consent Condition Reference	Condition	Addressed
	b) The operational lifespan of the Development from the Final Commissioning of the Development until the cessation of electricity generation (environmental management during decommissioning is addressed by the Decommissioning Programme provided for by condition 3).	operation of the Development. The EMP will be regularly revised and updated, when required and at intervals agreed with the Scottish Ministers.
	The EMP must be in accordance with the Application insofar as it relates to environmental management measures. The EMP must set out the roles, responsibilities and chain of command for the Company personnel, any contractors or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Development. It must address, but not be limited to, the following over-arching requirements for environmental management during construction:	Roles and Responsibilities of the Developments personnel are detailed in Section 2.1
	a) Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition 10);	Mitigation measures are detailed in Section 4. The linkages to the CMS are stated in Section 1.3. Once the CMS has been approved by the Scottish Ministers, this EMP will be updated where required in order to reference relevant parts of the CMS
	b) Marine Pollution and Contingency Plan ("MPCP");	Section 3.4 and Appendix F
	c) Management measures to prevent the introduction of invasive non-native marine species;	This is addressed in Section 4.1
	d) A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste	This is stated in Section 3.8

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Table B.2. Consent conditions to be discharged by this EMP

Consent Condition Reference	Condition	Addressed
	hierarchy of reduce, reuse and recycle should be encouraged; and	
	e) The reporting mechanisms that will be used to provide the Scottish Ministers and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and the way in which these have been addressed.	This is stated in Section 2.2.3
	The EMP must be regularly reviewed by the Company and the Scottish Ministers or Moray Firth Regional Advisory Group ("MFRAG"), at intervals agreed by the Scottish Ministers. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Development and updated working practices.	Section 2.2.3
	The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and the PEMP.	Section 5.1

Table B.3 Other consent conditions relevant to this EMP

Consent Condition Reference	Condition	Addressed
Wind Farm / OfTI Marine Licence Condition 3.1.4	<p>Should the Licensee or any of its agents, contractors or sub-contractors, by any reason of force majeure deposit anywhere in the marine environment any substance or object, then the Licensee must notify the Licensing Authority of the full details of the circumstances of the deposit within 48 hours of the incident occurring (failing which as soon as reasonably practicable after that period of 48 hours has elapsed).</p> <p>Force majeure may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel or vehicle operator determines that it is necessary to deposit the substance or object other than at the Site because the safety of human life or, as the case may be, the vessel, vehicle or marine structure is threatened. Under Annex II, Article 7 of the OSPAR Convention, the Licensing Authority is obliged to immediately report force majeure incidents to the OSPAR Commission.</p>	Section 3.2

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Table B.3 Other consent conditions relevant to this EMP

Consent Condition Reference	Condition	Addressed
Wind Farm / OfTI Marine Licence Condition 3.1.8	<p>The Licensee must seek prior written approval from the Licensing Authority for any chemicals in an open system which are to be utilised in the construction, operation and maintenance of the Works. Requests for approval must be submitted in writing to the Licensing Authority no later than one month prior to its intended use or such other period as agreed by the Licensing Authority. The Licensee must ensure that no chemicals are used in an open system without the prior written approval of the Licensing Authority.</p> <p>If the proposed chemical is on the OCNS list, the approval request must include the chemical name, volume or quantity to be used, the OCNS list grouping or rank and the proposed frequency of use.</p> <p>If the proposed chemical is not on the OCNS list, the approval request must include details of chemical to be used, including safety data sheet, depth and current at the Site, quantities or volumes and the proposed frequency of use.</p> <p>The Licensee must notify the Licensing Authority of the types of chemicals to be used in a closed containment system prior to use.</p> <p>The Licensee should take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages must be reported to the Licensing Authority as soon as practicable.</p>	Section 3.5
Wind Farm / OfTI Marine Licence Condition 3.1.9	<p>The Licensee must ensure that all equipment to be utilised in the Works which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases ("F-Gas Regulation") or mixtures containing any of those substances) must take precautions to prevent the unintentional release ('leakage') of those gases. The Licensee must take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases.</p> <p>Where leakage of fluorinated greenhouse gases is detected, the Licensee must ensure that the equipment is repaired without undue delay.</p> <p>The Licensee must ensure that all equipment to be utilised in the Works that contains fluorinated greenhouse gases in quantities</p>	Section 3.6

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Table B.3 Other consent conditions relevant to this EMP

Consent Condition Reference	Condition	Addressed
	<p>of 5 tonnes of CO₂ equivalent or more and not contained in foams is checked for leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks must be kept in accordance with Article 6 of the F-Gas Regulation. These records must be submitted to the Licensing Authority annually and immediately in the event of discovery of leakage.</p> <p>Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, the Licensee must ensure that the equipment is checked by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, the Licensing Authority must be informed of the date of discovery, date of repair and date of inspection.</p>	
Wind Farm / OfTI Marine Licence Condition 3.1.10	<p>The Licensee must ensure that all reasonable, appropriate and practicable steps are taken at all times to avoid or minimise any damage to the Scottish marine area caused as a result of the undertaking of the Licensed Activities.</p> <p>The Licensee must ensure that all personnel adhere to the SMWWC where appropriate during all construction, operation and maintenance activities authorised under this licence.</p>	Section 3 and 4
	<p>The Licensee must ensure that any debris or waste material placed below MHWS level during the construction of the Works is removed from the Site, unless agreed otherwise by the Licensing Authority, as soon as is reasonably practicable, for disposal at a location above the MHWS level, approved by SEPA or such other relevant authority if disposal is to take place outwith Scotland.</p>	Section 3.2.1.1
	<p>The Licensee must ensure that, where practicable, all substances and objects deposited and all construction materials used during the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.</p>	Section 3.2.1.1
	<p>The Licensee must ensure that the risk of transferring marine non-native species to and from the Site is kept to a minimum by ensuring appropriate bio-fouling management practices are implemented during the construction, operation and maintenance of the Works.</p>	Section 4.1

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Table B.3 Other consent conditions relevant to this EMP		
Consent Condition Reference	Condition	Addressed
	The Licensee must ensure that if oil-based drilling muds are utilised they must be contained within a zero discharge system. Any drill cuttings associated with the use of water-based drilling muds situated within the Site need not be removed from the seabed.	Section 3.5
Wind Farm / OfTI Marine Licence Condition 3.2.1.1	In the event of any breach of health and safety or environmental obligations relating to the Works during the period of this Licence, the Licensee must provide written notification of the nature and timing of the incident to the Licensing Authority within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Licensing Authority within a period of time to be agreed by the Licensing Authority.	Section 2.2.5
Wind Farm / OfTI Marine Licence Condition 3.2.1.2	The Licensee must ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils and lubricating fluids associated with the Works and associated equipment into the marine environment.	Section 3.7
S36 consent Condition 28 and Wind Farm / OfTI Marine Licence Condition 3.2.2.22 / 3.2.2.21	<p>Prior to the Commencement of the Development, the Company must at its own expense, and with the approval of the Scottish Ministers in consultation with SNH, appoint an independent Environmental Clerk of Works ("ECOW"). The ECoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this consent to Scottish Ministers, in sufficient time for any pre-construction monitoring requirements, and remain in post until agreed by the Scottish Ministers. The terms of appointment must also be approved by the Scottish Ministers in consultation with SNH.</p> <p>The terms of the appointment must include, but not be limited to:</p> <ul style="list-style-type: none"> a) Quality assurance of final draft versions of all plans and programmes required under this consent; b) Responsible for the monitoring and reporting of compliance with the consent conditions and the environmental mitigation measures for all wind farm infrastructure; c) Provision of on-going advice and guidance to the Company in relation to achieving compliance with consent conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP; 	Sections 2.1 and 2.2

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Table B.3 Other consent conditions relevant to this EMP

Consent Condition Reference	Condition	Addressed
	<ul style="list-style-type: none"> d) Provision of reports on point b & c above to the Scottish Ministers at timescales to be determined by the Scottish Ministers; e) Induction and toolbox talks to onsite construction teams on environmental policy and procedures, including temporary stops and keeping a record of these; f) Monitoring that the Development is being constructed in accordance with the plans and this consent, the Application and in compliance with all relevant regulations and legislation; g) Reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to the Scottish Ministers; and h) Agreement of a communication strategy with the Scottish Ministers. 	
S36 consent Condition 29 and Wind Farm / OfTI Marine Licence Condition 3.2.2.23 / 3.2.2.22	<p>Prior to the Commencement of the Development, a Fisheries Liaison Officer ("FLO"), must be appointed by the Company and approved, in writing, by the Scottish Ministers (following consultation with SFF and the MFCFWG). The FLO must be appointed by the Company for the period from Commencement of the Development until the Final Commissioning of the Development. The identity and credentials of the FLO must be included in the EMP (referred to in condition 14). The FLO must establish and maintain effective communications between the Company, any contractors or sub-contractors, fishermen and other users of the sea during the construction of the Development, and ensure compliance with best practice guidelines whilst doing so.</p> <p>The responsibilities of the FLO must include, but not be limited to:</p> <ul style="list-style-type: none"> a) Establishing and maintaining effective communications between the Company, any contractors or sub-contractors, fishermen and other users of the sea concerning the overall Development and any amendments to the CMS and site environmental procedures; b) The provision of information relating to the safe operation of fishing activity on the site of the Development; and 	Sections 2.1 and 2.2

Table B.3 Other consent conditions relevant to this EMP		
Consent Condition Reference	Condition	Addressed
	c) Ensuring that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.	
Wind Farm / OfTI Marine Licence Condition 3.2.3.1	<p>The Licensee must submit to the Licensing Authority a detailed TAR for each calendar month during the construction phase of the Works. The TAR must be submitted within 14 days of the end of each calendar month.</p> <p>The TAR must include the nature and quantity of all substances and objects deposited and materials used in construction (as described in Part 2 of this licence) in that calendar month. Alterations and updates can be made in the following month's TAR. Where appropriate, nil returns must be provided.</p> <p>If the Licensee becomes aware of any substances, objects or materials on the TAR that are missing, or becomes aware that an accidental deposit has occurred, the Licensee must notify the Licensing Authority as soon as practicable. The Licensee must undertake such survey as directed by the Licensing Authority to locate the substances, objects and materials. If the Licensing Authority is of the view that any accidental deposits have occurred and should be removed, then the materials must be removed by the Licensee as soon as is practicable and at the Licensee's expense.</p>	Section 3.2.1

B.4 Sustainable Construction

The Institute of Environmental Management and Assessment (IEMA) state "Sustainable Construction" as

"application of sustainable development to the construction industry, whereby the construction and management of a development is based on principles of resource efficiency and the protection/enhancement of natural and built heritage. Sustainable construction comprises such matters as site planning and design, material selection, resource and energy use, recycling and waste minimisation". (Institute of Environmental Management and Assessment, Environmental Management Plans Practitioner, Volume 12, December 2008).

Moray West is fully committed to ensuring that the Development staff and stakeholder needs and expectations are met and exceeded, achieving the ultimate goal of delivering the Development to the highest standard of quality, with a Zero Harm approach to the health and safety of individuals and to the environment as a whole. Moray West have developed an overarching QHSE Policy, which includes the following objectives:

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- To reduce our carbon footprint by conserving natural resources and reducing energy use and waste generated by our operations; and
- To support and maintain our commitment to the protection of the environment, including prevention of pollution and other specific commitment(s) relevant to the context of the organisation's undertakings.

This EMP provides a framework, supported by Moray West's QSHE Policy, the organisational context, the EIA and associated documents, the Consent Plans (including the WMP and MPCP) and the output of hazard identification processes, to aid Moray West in achieving its own environmental objectives:

- Zero spills to sea.
- Zero high potential incidents.
- All personnel working on the Development shall have a risk assessment for every task, which also addresses environmental impact.
- Responsible construction and compliance with all applicable legislation, licences and conditions and best practice guidance.
- Consideration of local supply chain and use of sustainable materials where possible.
- Use of the waste hierarchy of reduce, reuse and recycle wherever possible.
- Incorporation of 'lessons learnt' into ongoing works for continued HSE improvement.

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Appendix C – Transport Audit Report

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Wind Farm Marine Licence (06763/19/0) - Condition 3.2.3.1

CONSENTED			AS BUILT																											
Wind Farm	Parameter	Volume/ weight	Cumulative Deposits	Remainder Licenced Deposits	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	
Monopiles, inter-array cables, scour and cable protection	Steel/Iron (tonnes)	400,000	0.00	400,000.00																										
	Plastic/Synthetic (tones)	5,000	0.00	5,000.00																										
	Sand (tonnes)	5,000,000	0.00	5,000,000.00																										
	Stone/Rock/Gravel, volume (m³)	5,950,000	0.00	5,950,000.00																										
	Concrete bags/Mattresses (6m x 3m x 1.5m), number	4,148	0.00	4,148.00																										
	Concrete bags/Mattresses, volume (m3)	112,000	0.00	112,000.00																										
	Cable (m)	319,000	0.00	319,000.00																										

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Offshore Transmission Infrastructure Marine Licence (OfTI) (06764/19/0) - Condition 3.2.3.1

CONSENTED			AS BUILT																											
OfTI	Parameter	Volume /weight	Cumulative Deposits	Remainder Licenced Deposits	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	
Monopiles, offshore export cables, interconnector cable, scour and cable protection	Steel/Iron (tonnes)	20,000	0.00	20,000.00																										
	Plastic/Synthetic (tonnes)	2,000	0.00	2,000.00																										
	Sand (m³)	200,000	0.00	200,000.00																										
	Stone/Rock/Gravel, size range	15-200 mm	N/A	N/A																										
	Stone/Rock/Gravel, volume (m³)	130,000	0.00	130,000.00																										
	Concrete bags/Mattresses (6m x 3m x 1.5m), number	2,500	0.00	2,500.00																										
	Concrete bags/Mattresses, volume (m³)	67,500	0.00	67,500.00																										
	Cable (m)	145,000	0.00	145,000.00																										

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Appendix D – Dropped Objects Form

Reference Number:
Version: 02

DROPOB1 - OFFSHORE WIND & MARINE RENEWABLES DROPPED OBJECTS FORM

Marine Scotland notification pro-forma for reporting the dropped materials from the offshore wind/marine renewables industry at sea

This DROPOB1 form should be completed in conjunction with the 'Dropped Objects Policy Guidance'. This DROPOB1 must be submitted electronically to the organisations listed below no later than 24 hours after the event takes place (or as soon as possible where there is likely to be a significant hazard to other sea users). In circumstances where not all the information is available within 24 hours, the form should be submitted and can be updated at a later time.]

Marine Scotland
Local HM Coastguard Station(s)
 Maritime & Coastguard Agency
 Kingfisher at Seafish
 Northern Lighthouse Board
 UK Hydrographic Office (UKHO)
 Navigational Warnings at UKHO
 Scottish Fisherman's Federation
 Where geographically relevant:
 West Coast RIFG
 Outer Hebrides RIFG
 Orkney Management Group
 Shetland Shellfish Management Organisation

MS.MarineRenewables@gov.scot
 [dependent on location of dropped object]
navigationsafety@mcga.gov.uk
kingfisher@seafish.co.uk
Navigation@nlb.org.uk
sdr@ukho.gov.uk
navwarnings@ukho.gov.uk
PON2@sff.co.uk
Alastair.mcruraidh.mcneill@gmail.com
info@wifa.co.uk
orkneyfisheries@btconnect.com
carole@ssmo.shetland.co.uk

Reporter details		Date of report:	
Full name:		Position/Title:	
Contact telephone no:		Contact e-mail:	
Operator/Organisation/Company responsible for dropped object:			
Name licensee or vessel responsible for dropped object			
Location/position at the time of dropping object:			
Latitude:		Longitude:	
Date dropped:		Time (24hours):	
Weather conditions at time:		Depth of sea (metres)	
Wind direction (0-360 degree):		Wind speed (knots):	
Beaufort scale: tide rate/direction		Wave height (metres):	

Reference Number:

Version: 02

<p>Dropped object(s) – provide full description. Materials involved, function of object, dimensions etc. Provide photos if available.</p>	
<p>If the materials are resting on the seabed are they near offshore assets? Yes or No:</p> <p>If yes please provide details:</p>	
<p>Are the materials likely to float on sea surface or in water column? Yes or No:</p> <p>If no, estimated clearance over object:</p>	
<p>If the answer to question above is yes - are materials likely to reach shore or cross an international border? - please specify</p>	
<p>Reasons for dropping object(s)</p> 	
<p>What are the plans to recover the materials? Please specify details, including anticipated timescales for the recovery operation. If there are no plans to recover the materials the reason for this must be clearly specified.</p> 	
<p>What are considered to be the risks and dangers to other users of the sea as a result of the lost or dumped materials not being recovered?</p> 	

Reference Number:

Version: 02

Any further information that may be useful:

In addition to those mandatory stated at the top of this form, please list the organisations that you have / will copy this form to:

For internal Marine Scotland use only:

Incident history:

Date of notification:

Actions taken:

Final action:

Confirmation that case is closed : ☐

Name of person closing the dropped objects case:

Date closed:

Reason for closing case:

MS – Compliance/Fisheries/Renewables

SFF

NFFO

IFGs

MCA

Kingfisher

NLB

UKHO

Appendix E – Marine Pollution Contingency Plan

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MORAY OFFSHORE WINDFARM (WEST) LIMITED

Marine Pollution Contingency Plan

Document Name: 8460005-DBHA06-MWW-PLN-000002

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Version Control				
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0	16-11-21	Draft	Submission to Moray West for review	Moray West
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Document Approval				
Prepared by:	ECoW Review:	Legal Review:	Approved by:	Approved by:
RHDHV (Joe Green, Alexia Chapman)	RHDHV (Erin Snaith)	Shepherd and Wedderburn (Scott McCallum)	Catarina Rei (Senior Development Manager)	Adam Morrison (Project Director)

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Plan Overview

Purpose and Objectives of the Plan

This Marine Pollution Contingency Plan (MPCP) has been prepared to address the specific requirements of the relevant conditions attached to the Section 36 (S36) consent and Marine Licences issued to Moray Offshore Windfarm (West) Limited (hereafter referred to as 'Moray West').

Scope of the Plan

This MPCP applies to Tier 1 (see Section 3) oil spill incidents associated with construction activities, final commissioning and all activities required during the operational lifespan of Moray West. Please note that response to Tier 2 and Tier 3 incidents is not covered within the scope of the MPCP.

Additionally, this document does not cover any activities associated with decommissioning, as it will be covered under a separate Marine Licence required for the Decommissioning of the Development.

Plan Locations

Copies of this MPCP are to be held in the following locations:

- Moray West's main project office in Edinburgh;
- all site offices dealing with marine operations;
 - the Moray West Marine Coordination Centre (MCC);
 - the Contractors;
 - with the Environmental Clerk of Works (ECOW(s)); and
- aboard any vessels carrying out the Works.

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Abbreviations and Acronyms

Acronym / Abbreviation	Description
CMT	Crisis Management Team
CPS	Counter Pollution and Salvage
CPSO	Counter Pollution and Salvage Officer
EEZ	Exclusive Economic Zone
ECOW	Ecological Clerk of Works
EG	Environment Group
EMP	Environmental Management Plan
ERP	Emergency Response Plan
LRF	Local Resilience Forum
MAIB	Marine Accident Investigation Branch
MCA	Maritime and Coastguard Agency
MCC	Marine Coordination Centre
MFRAG	Moray Firth Regional Advisory Group
MGO	Marine Gasoil
MPCP	Marine Pollution Contingency Plan
MRC	Marine Response Centre
MRCC	MCA Coastguard Maritime Rescue Coordination Centre
MS-LOT	Marine Scotland Licencing Operations Team
NCP	National Contingency Plan
NGO	Non-Governmental Organisation
OCU	Operations Control Unit
PPE	Personal Protective Equipment
QHSE	Quality, Health, Safety and Environment
ResCG	Response Co-ordinating Group
SOPEP	Shipboard Oil Pollution Emergency Plan
SOSREP	Secretary of State Representative
SCG	Strategic Coordinating Group
SCU	Salvage Control Unit
SRC	Shoreline Response Centre
STAC	Science and Technical Advice Cell
TCG	Tactical Coordinating Group
VMNSP	Vessel Management and Navigational Safety Plan

1 Introduction

This Marine Pollution Contingency Plan (MPCP) has been prepared in accordance with marine oil spill response industry best practise, the relevant requirements of governing authorities and in line with applicable Moray West guidelines for emergency response plans and operations.

In the event of an incident please proceed to Section 6.

1.1 MPCP Objectives

The objectives of this MPCP are to set out processes and procedures enabling Moray West to respond to Tier 1 (see Section 3) spills of oil and/or fuels. The principles underlining this MPCP are as follows:

- Safeguard Lives
- Protect the Environment
- Protect Moray West or Third-Party assets
- Resume Normal Operations.

For details of other aspects of environmental management related to the Development¹, please refer to the relevant section of the Environmental Management Plan (EMP).

The fundamentals of Tier 2 and Tier 3 incident response have been included within this document despite its primary purpose being Tier 1 incident planning and response as the risk of a Tier 2 or Tier 3 incident occurring during construction has not been discounted. This likelihood of a Tier 2 or Tier 3 incident occurring may be lower than that of a Tier 1 incident, however, effective escalation and de-escalation between Tiers is critical to ensure clean-up operations proceed as planned. Additionally, in the event of a Tier 2 or Tier 3 incident, Moray West may retain overall responsibility for the response and would likely be involved in Incident Command decision making and the logistics of active response for all Tiers. On this basis, reference to Tier 2 and Tier 3 response has been made in this document, where appropriate.

2 National Oil Spill Contingency Plan – Overview

The UK National Contingency Plan (NCP) for Marine Pollution from Shipping and Offshore Installations describes the processes at a national level for responding to a spill of oil or other hazardous materials at sea in UK waters. It is designed primarily for spills of national significance comprising Tier 2 or Tier 3 pollution incidents. The NCP involves numerous local Government and private industry organisations.

Please note that activation of the NCP is not the responsibility of an Offshore Operator. It is the responsibility of the Maritime and Coastguard Agency (MCA) and, in the event of a significant release from a vessel or offshore installation, the primary responder shall report the incident to the nearest MCA Coastguard Maritime Rescue Coordination Centre² (MRCC) by telephone. It is the MRCC's responsibility

¹ The Development consists of the Moray West Offshore Wind Farm and Offshore Transmission Infrastructure (OfTI).

² The MRCC ensures the MCA meets its obligations and responsibilities for emergency response. MRCC personnel respond to emergency calls 24 hours a day, year round.

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to contact the vessel or offshore installation to determine details of the incident and enable an appropriate response.

The MRCC would then initiate any search and rescue operations that may be required by way of response. The MRCC would notify the MCA duty Counter Pollution and Salvage Office (CPSO), MCA Headquarters and the Marine Accident Investigation Branch (MAIB) of any pollution incident or risk of significant pollution. The CPSO decides if a regional or national response is required, as criteria for triggering the different scales of response are not provided in the NCP.

In an instance where either a regional or national response is activated, the MCA may deploy several response Units and set up response centres, such as the Marine Response Centre (MRC) or the Shoreline Response Centre (SRC). These Units, if deployed, will act to work with and support the spill response actions, including the Marine Coordination Centre (MCC) implemented by Moray West.

3 Oil Spill Response Tiers

For an oil spill response, it is common to divide the levels of response into three, internationally recognised tiers, according to the severity of the spill and resources required. If a spill occurs, the vessel master, with support from the Marine Coordinator, ensures the incident is categorised into one of the three tiers outlined in Table 3-1 below, once sufficient information is available. This will allow an appropriate level of incident planning to be put in place.

Table 3-1: Oil Spill – Tiered Response Principles

Tier 1	
Small oil spills, or those which can be quickly and easily cleaned up using on-site resources or local contractors	
<ul style="list-style-type: none">Oil is contained within the incident siteSpill occurs within immediate site proximityDaytime releaseAble to respond to the spill immediately	<ul style="list-style-type: none">Source of spill has been containedOil is evaporating quickly and no danger of explosive vapours (e.g. diesel)Spill likely to naturally disperseNo media interest
Tier 2	
Oil spills which pose a threat of significant pollution resulting in the mobilisation of external oil spill response resources on a regional level	
<ul style="list-style-type: none">Danger of fire or explosion or Possible continuous releaseConcentrated oil accumulating in close proximity to the site / vessel, etc.	<ul style="list-style-type: none">Not able to respond to the spill immediatelyPotential to impact other installationsTier 1 resources overwhelmed, requiring additional Tier 2 regional resources

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<ul style="list-style-type: none"> ○ Spill occurs within the vicinity of the operational site ○ A release during hours of darkness 	<ul style="list-style-type: none"> ○ Potential impact to sensitive areas and/or local communities ○ Local/national media attention
Tier 3	
Catastrophic oil spills which pose a threat of significant pollution resulting in the mobilisation of external oil spill response resources on a national/international level	
<ul style="list-style-type: none"> ○ Actual or potentially serious threat to life, property, industry ○ Major spill beyond site vicinity ○ Significant shoreline impact possible 	<ul style="list-style-type: none"> ○ Tier 2 resources overwhelmed, requiring international Tier 3 resources ○ Oil migrating towards neighbouring countries ○ Significant impact on local communities ○ International media attention

4 Moray West - Spill Scenarios

In order to define the parameters of the MPCP, potential spill scenarios need to be identified. The scenarios identified for this MPCP are based on the following information:

- number and type of vessel calls or vessels passing;
- type and volume of oil carried;
- expected frequency and size of spills;
- potential areas with a high risk of spills;
- consideration of probable consequences;
- location of sensitive resources;
- probable spill movement; and
- effects of oil on resources.

Based on the above, the following scenarios in **Table 4.1** have been developed for Moray West.

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Table 4-1 Potential spill scenarios and control measures

Table 4-1: Spill scenarios				
Spill Scenario	Potential Pollutant	Control Measures	Risk with measures in place	Tier
<p>Vessel Refuelling: Loss of fuel during vessel to vessel refuelling at sea or refuelling at port</p> <p>Equipment Refuelling Loss of fuel during refuelling of equipment (on vessel or on turbine/OSP)</p>	<p>Non-persistent Oil (Marine Gas Oil (MGO) and Diesel)</p> <p>Persistent Oil (Hydraulic and Lube Oils and Intermediate Fuel Oil (IFO))</p>	<p>Moray West and/or contractors will undertake operationally necessary refuelling at sea as required, to fuel vessels that are extremely restricted in their capability to leave station to take on fuel, such as jack ups.</p> <p>Preparation and review of task-specific risk assessments, method statements and fuel transfer planning tools and checklists.</p> <p>Refuelling operations will be planned in advance and if practicable will aim to commence during daylight and in good weather conditions.</p> <p>Fuel transfer operations will be carefully conducted under the supervision by an appointed responsible person on board (e.g. Chief Engineer) and in accordance with each vessel's stipulated procedure and checklist.</p> <p>A bunker plan shall be developed and made available to all relevant personnel. Before fuel transfer starts a tool box talk will be held with all ship staff involved in the operation and the following subjects should be discussed, as a minimum:</p> <ul style="list-style-type: none"> • Bunker plan, including any anticipating changes; • Risk assessment; • Individual roles and responsibilities in the process; • Emergency situations; and • Bunkering Checklists. <p>Only hoses fitted with non-return valves shall be used for the offshore transfer of fuel or other fluids.</p>	Low	<p>2 (vessel)</p> <p>1 (equipment)</p>

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Table 4-1: Spill scenarios				
Spill Scenario	Potential Pollutant	Control Measures	Risk with measures in place	Tier
		<p>Vessels over 400 GRT will carry a SOPEP in compliance with The Merchant Shipping (Prevention of Oil Pollution) Regulations 2019.</p> <p>Vessels over 400 GRT will carry an Oil Record Book in compliance with The Merchant Shipping (Prevention of Oil Pollution) Regulations 2019. In the Oil Record Book particulars are entered of:</p> <ul style="list-style-type: none"> • Details of fuel and oil bunker operations; • Disposal of sludge (oil residues); • Discharge overboard or disposal otherwise of machinery space bilge water; • Condition of oil discharge monitoring and control systems; • Accidental or other exceptional discharges of oil; and • Additional operational procedures and general remarks. • Appropriate training of personnel and supervision of activity. <p>Compliance with conditions related to vessel refuelling set out in Merchant Shipping Notice (MSN) 1829 "Ship to Ship Transfer Regulations 2010/2012".</p> <p>A visual lookout will be made at all times during fuel transfer operations to verify hose integrity throughout the transfer and in order to spot any leaks immediately.</p> <p>All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume.</p>		

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Table 4-1: Spill scenarios				
Spill Scenario	Potential Pollutant	Control Measures	Risk with measures in place	Tier
		<p>Personnel shall be trained in spill prevention awareness, and in the use of spill kits. Spill kits shall be readily available for mopping up any minor spills.</p> <p>Regular inspection and maintenance of equipment shall be undertaken with a pre-agreed monitoring, logging and reporting procedure.</p> <p>The means of preventing any fuel oil from escaping into the bilges such as trays beneath oil pumps, heaters etc., special oil gutter ways etc. will be regularly inspected and drained or cleaned.</p> <p>Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.</p>		
Vessel Collision Loss of fuel from collision between vessels.	Intermediate Fuel Oil (IFO) Marine Gas Oil (MGO) (Diesel)	All vessels will comply with the measures set out in the Navigational Safety and Vessel Management Plan (NSVMP) to prevent vessel to vessel collision and vessel to structure collision.	Very Low	2-3
Vessel Allision Loss of fuel from allision between vessel and structure (e.g. wind turbine)				
Vessel Grounding Loss of fuel due to vessel stranding/grounding.	Intermediate Fuel Oil (IFO) Marine Gas Oil	All vessels will comply with the measures set out in the VMNSP to prevent vessel stranding / grounding.	Very Low	2-3

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Table 4-1: Spill scenarios				
Spill Scenario	Potential Pollutant	Control Measures	Risk with measures in place	Tier
	(MGO) (Diesel)			
Failure of Plant Equipment Release of fuel due to failure of plant or equipment	Intermediate Fuel Oil (IFO) Marine Gas Oil (MGO) (Diesel) Lube oil	All equipment shall be operated and maintained in good order and in accordance with legal requirements. All plant and equipment shall only be operated by adequately trained and competent personnel. All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume. The means of preventing any fuel oil from escaping into the bilges such as trays beneath oil pumps, heaters etc., special oil gutter ways etc. will be regularly inspected and drained or cleaned. Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.	Low	1-2
Spillage During Use of Equipment Small spills during equipment operation	Marine Gas Oil (MGO) (Diesel) Lube oil	Preparation and review of task-specific risk assessments and method statements. Personnel shall be trained in spill prevention awareness, and in the use of spill kits. Spill kits shall be readily available for mopping up any minor spills. The means of preventing any fuel oil from escaping into the bilges such as trays beneath oil pumps, heaters etc., special oil gutter ways etc. will be regularly inspected and drained or cleaned. Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.	Low	1

The emergency response procedures contained in this document have been developed to respond to TIER 1 INCIDENTS.

Tier 2 and Tier 3 response falls outside the scope of this MPCP; however, references to Tier 2 and Tier 3 response have been included to assist the escalation and de-escalation processes should the demands of an incident response exceed Tier 1 capability.

Within the scope of this document, a Tier 1 incident may include scenarios such as small spills to vessel decks/barges or other similar scenarios or minimal releases to water that can be rapidly managed by on-site staff. If there is any level of uncertainty regarding the ability of Moray West personnel to respond, or a release during hours of darkness, the response will be escalated to Tier 2 and professional contractors will be mobilised.

Moray West may still have overall responsibility for managing incident response if it escalates to Tier 2 or Tier 3. However, it is acknowledged that external contractors and/or government bodies (e.g. MCA) may assist/direct certain aspects of the response.

5 Command Structure - Tier 1

5.1.1 Moray West Internal Responsibilities

In the event of a Tier 1 incident, the chain of command comes from Moray West through contractors to sub-contractors. Masters remain in command of their own vessels but will be directed by Moray West where appropriate. Moray West personnel involved in the response is outlined in explained in .

For details of other Moray West roles, please refer to the main EMP text.

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Table 5-1: Key responsibilities of personnel relevant to this MPCP	
Moray West QHSE Manager	
<ul style="list-style-type: none"> • Lead on contact with spill contractors in the event of an incident. • Collation of performance data (including live incident data). • Lead on incident investigations. • Lead regarding transport, waste, and equipment. • Emergency response liaison with Marine Coordinator. 	
Marine Coordinator	
<ul style="list-style-type: none"> • Manages vessel movement. • In a Tier 1 incident, the Marine Coordinator liaises with the vessel master for any clean-up procedures, notifies other vessels in the vicinity, and coordinates other required responses. • Escalates incidents to Tier 2 or Tier 3 where required. • Provides the Moray West logistical support for the MCA and other response groups set up in response to the incident. 	
Moray West Head of Construction	
<ul style="list-style-type: none"> • Lead on personnel and Contractor support for the Ecological Clerk of Works (ECoW) / Development Associate where required (including during incidents). • Ensure that any corrective actions arising from environmental audits are addressed (including spill training, during incidents and incident reviews). • Ensure Contractor and Subcontractor non-compliance is reported and addressed. 	
Moray West Offshore Development Manager	
<ul style="list-style-type: none"> • Lead on all incident-related reporting, returns and notifications to Marine Scotland Licencing Operations Team (MS-LOT) and relevant stakeholders as required. • Ensure compliance with the MPCP, supported by the ECoW. • Primary contact for MS-LOT, Moray Firth Regional Advisory Group (MFRAG), statutory bodies and stakeholders (excluding the responsibilities undertaken by Moray West's ECoW). 	
Moray West ECoW	

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- Reports on compliance and environmental issues to Moray West and to MS-LOT (including incident and near-miss reporting).
- Reviewing and reporting incidents and near misses to MS-LOT.
- Work with contractors and Moray West QHSE and Development Team to establish practical environmental communication and reporting protocols (including incidents).
- Attendance at incident meetings, providing environmental input (including environmentally sensitive information relevant to spill response).
- Review of relevant Contractor documents from a compliance perspective, including contractor EMPs and risk assessments.
- Direct liaison with MS-LOT, statutory bodies and stakeholders as required, including agreement of communication strategy.

Contractors

- Ensure sufficient resources and processes are in place to deliver/comply with this MPCP and manage potential environmental impacts, including those of any subcontractors (including Tier 2 and Tier 3 emergency response contractors).
- Responsible for reporting to the Moray West Development team.
- Responsible for implementing and discharging the required mitigation (control) measures on behalf of Moray West at Tier 2 and Tier 3 level spill response.
- Develop a contractor-specific EMP in line with the requirements of this MPCP for Moray West review and comment.
- When mobilised (under Tier 2 and Tier 3 incidents), ensure subcontractors adhere to the requirements of this MPCP, and the Contractor's EMP and Method Statements.
- Producing and maintaining records of activity on site and communicating those to the ECoW to enable reporting of compliance to MS-LOT.

5.1.2 Marine Coordinator

A project Marine Coordination Centre (MCC) will be established from where offshore construction activities will be coordinated and a dedicated team will be appointed to perform the role of Marine Coordinator. The Marine Coordinator will coordinate day-to-day vessel activity in the Development area by providing a logistical oversight for the transportation of materials and personnel. The Marine Coordinator will also act as a first point of contact for incident management and a significant resource in the implementation of this MPCP. In the event of an oil spill, the Marine Coordinator, who will be based at the MCC, will act as follows:

- The Marine Coordinator to be notified of any incidents immediately by the vessel master or client representative.
- Vessel master or Marine Coordinator to determine the severity of an incident and categorise the incident as a Tier 1, 2 or 3 incident in order to implement a proportionate response.

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- Communicate with the Moray West QHSE Manager, the Moray West Development Team and the ECoW.
- Provide clear definition of all roles and responsibilities in a response operation.
- Allocate personnel and equipment to affected areas through the lifecycle of the incident.
- Ensure dedicated communication personnel are available to disseminate information to and from the incident site to the MCC.
- Escalate the response if conditions require it – this may include mobilising Tier 2 or Tier 3 responses with contracted specialist response contractors and/or government resources.
- De-escalate the response-decision making with regard to standing down equipment/personnel in accordance with the circumstances of the incident and response.
- Liaison with external partners – including government bodies, spill response contractors, external specialists (including waste management contractors, oiled wildlife specialists etc.)
- Response termination – this will include collaboration and agreement with government bodies if Tier 2/3.
- Waste management.

Please be aware that not all of the functions listed above may apply to a Tier 1 incident, this list should be amended on an incident-by-incident basis.

5.1.3 Incident Reporting Procedure

Moray West have a responsibility to keep the Licensing Authority informed of any such incidents which may be in the public interest. In the event of a breach of health and safety or environmental obligations relating to the Development, and following any required statutory notifications, the Contractor will notify Marine Coordinator and Moray West QHSE Manager as soon as possible. Note that the Contractor will have prime responsibility for responding to any incident.

An incident response shall be executed in accordance with the Contractors own, compliant response procedures, and/or procedures set out in relevant Consent Plans. Contractors shall have in place a system for the investigation and analysis of incidents and accidents, whose focus should be on the identification of root causes. They shall share all details and reports relating to an investigation on the incident conducted on Development activity and issue an interim report(s) if the investigation is likely to take longer than two weeks. Where sufficient concern exists, Moray West may also conduct its own investigation into an Environmental incident. The Contractors shall support this as required.

The Contractors shall have their own Emergency Response Plans (ERPs), specific to their scope of work, that align with Moray West ERCoP, MPCP and the EMP and ensure that the interfaces are clear.

5.1.4 UK NCP requirements

The key requirement in the NCP relating to Tier 1 incidents is that if an incident exceeds Moray West's internal response capabilities (especially in the provision of counter pollution equipment and personnel),

additional capability escalation to Tier 2 or 3 may be required. This also applies in the event that response contractors become overwhelmed and require equipment or expertise beyond their capabilities.

In all such events, additional response capability should be sourced from other accredited pollution response contractors or the use of national assets via the MCA. Additional details on the requesting and use of national pollution response assets is within paragraph 13.5 – 13.9 of the NCP.

5.2 Command Structure – Tiers 2 and 3

Please refer to details of Tier 2 and 3 contractor organograms and team structures. The key principles of incident command for Tier 2 and 3 incidents as defined in the NCP are summarised below.

5.2.1 Tier 2 – Key NCP Principles

- In the event of a Tier 2 incident - Tier 2 specific response plans are to be activated.
- NCP recommends responders to conduct initial risk assessment and activate resources as appropriate. Continual re-assessment of risk required.
- Please note that, where appropriate, MCA and/or offshore operator will deploy aerial surveillance.
- If appropriate, Moray West personnel to support Strategic Coordinating Group (SCG), Tactical Coordinating Group (TCG) or Environment Group (EG). Please refer to Section 5.2.3 for further details.
- Initiate Moray West's communications schedule/processes in order to co-ordinate overall response.
- Local/regional/national media handling may be required.
- MCA may consider deploying national pollution response resources.

5.2.2 Tier 3 – Key NCP Principles

- Escalation to Tier 3 is determined by the MCA and will be communicated to all appropriate Category 1³ responders.
- MCA will establish an MRC (please refer to Section 5.2.3) and assume the lead for at-sea pollution response for offshore industry related incidents.
- MCA to establish MRC for an offshore industry incident where oil is on the water.
- MCA to alert relevant coastal States, European Commission and the European Maritime Safety Agency (EMSA)⁴ if there is a risk of pollution outside the UK Exclusive Economic Zone (EEZ) activating relevant bilateral and multi-national plans where necessary.

³ Under the Civil Contingencies Act 2004, a Category 1 responder are those organisations at the core of an emergency response, e.g., emergency services, local authorities, NHS bodies, etc.

⁴ EMSA is the Agency that provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety, pollution by ships and maritime security

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- Counter pollution resources deployed as required by national contractors, operators' contractors, designated salvors.
- Lead Government Departments, Secretary of State Representative (SOSREP) and response organisations to support Central Government and Devolved Administration briefing.

5.2.3 Tiers 2 and 3 – NCP Organisational Structure

The MCA will lead the at-sea response through an MRC that is established by the MCA's Counter Pollution and Salvage (CPS) Branch. The MRC will determine actions to track, contain, disperse or mitigate pollutants whilst at sea.

The SOSREP has responsibility for exercising the intervention powers where there is a risk of significant pollution or a risk to safety or human health. The SOSREP liaises with other response cells and may have options to exercise the intervention powers.

Where there are significant 'on-shore' consequences from an at-sea pollution incident, a multi-agency SCG is established led by the MCA. The SCG, in consultation with other cells, manages the overall strategic multi-agency response.

For protracted shoreline clean-up operations, a Recovery Co-ordinating Group may be required, with the lead being provided by the police or the local authority.

There is a potential for a number of strategic decision-making cells for specific aspects of a Tier 2 or Tier 3 incident, if oil is at sea these may include:

- **Marine Response Centre (MRC)**

The MRC considers and implements the most appropriate means to contain, disperse, and remove potential pollutants from the scene based on all the information available to them. An MRC is established in almost all cases involving a national response (i.e., Tier 2 or Tier 3 incident). The Head of the CPS Branch (part of the MCA) determines the need to establish an MRC which is then established at the most appropriate location.

- **Salvage Control Unit (SCU)**

During a shipping incident, the Salvage Control Unit (SCU) will monitor salvage operations to ensure there is no adverse effect on safety and the environment. The SOSREP determines the requirement for an SCU.

- **Operations Control Unit (OCU)**

During an offshore related incident, the Operations Control Unit (OCU) will monitor the offshore operator's response actions to ensure there is no adverse effect on safety and the environment. The SOSREP determines the requirement for an OCU and establishes the OCU at the operator's premises, i.e., Moray West's MCC, or with Moray West's emergency response provider.

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When the pollution threatens the shoreline, a number of additional groups may be established by the MCA. These are:

- **Strategic Co-ordinating Group (SCG)**

If there is risk of significant on-shore consequential impacts on health, the economy, or environment or where significant public and media interest has been generated, an SCG may be activated. The group manages the on-shore response strategy, develops the long term plan, and the policy and direction of the response. Where the incident poses a significant threat to health or the environment on land, the SCG may establish a Science and Technical Advice Cell (STAC). The STAC provides expert advice on a range of scientific and technical issues in order to effectively deal with the immediate and longer term consequences of an emergency.

- **Tactical Co-ordinating Group (TCG)**

This group develops and co-ordinates the on-shore operational response plan. The TCG usually comprise the most senior officers of each agency committed within the area of operations and assumes tactical command of the event or situation.

- **Response Co-ordinating Group (ResCG)**

Where an incident affects more than one Local Resilience Forum⁵ area, a Response Co-ordinating Group (ResCG) may be established by the relevant department of the Scottish Government to co-ordinate multi-SCG interaction.

- **Recovery Co-ordinating Group**

Recovery of the shoreline may be carried out by a Recovery Co-ordinating Group. In Scotland, the relevant Local Resilience Partnership carry out this role as set out in the best practice 'Ready Scotland – Preparing Scotland'⁶.

The response to any maritime incident may require the establishment of a number of groups that are involved in both operations at sea and shoreline clean up. These are:

- **Environment Group (EG)**

The EG provides a single advisory line on public health and environmental issues at sea to all response cells and is formed by the MCA. At the outset of an incident, at sea, the MCA triggers the formation of an

⁵ Local resilience forums (LRFs) are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others. The LRFs aim to plan and prepare for localised incidents and catastrophic emergencies. They work to identify potential risks and produce emergency plans to either prevent or mitigate the impact of any incident on their local communities. In Scotland this is the Scottish Resilience Partnership.

⁶ <https://ready.scot/how-scotland-prepares>

EG to provide advice requiring a local, regional or national response. There are number of Standing Environment Groups which cover the entire UK coastline and the MCA co-ordinates the geographical coverage of individual Standing Environment Groups, their contact details and call out arrangements. The 'Scotland Standing Environment Group' covers the coastline of all of Scotland.

The EGs comprise the statutory environmental regulators, fisheries departments, nature conservation bodies and public health bodies plus a range of specialist public sector and non-government organisations.

The EG framework enables a co-ordinated and timely environmental input to any other more localised or specialised incidents.

The EG may be set up as a precautionary approach when the possibility of incident escalation has potential. In many minor incidents, the operational EG remains a "virtual" Group responding with advice when requested.

6 Incident Response Procedures

6.1 Notification

In order to make an initial assessment of the emergency and to facilitate appropriate action, the First Responder (spill observer) should provide the Marine Coordinator, either directly in the event of a non-vessel spill, or through the vessel master in the event of a vessel-spill, with the following information:

- Date and time of observation: Local time or GMT/ UTC.
- Position of the incident (e.g., latitude & longitude, vessel name etc).
- Source and cause of pollution (e.g., name and type of vessel, collision or grounding).
- Estimate of the amount of oil spilled, its type and characteristics.
- Description of the spilled oil including direction, length, breadth and appearance of slicks.
- Current and forecast weather and sea conditions.
- Contact all personnel in the vicinity of the leak or spill and warn of the potential hazard.
- If safe to do so, stay in vicinity of the leak or spill and continue observation.
- If safe to do so, take any reasonable action to contain or reduce the leak or spill.

It is critical to maintain a log of decisions and actions as soon as the incident is notified.

6.1.1 Contact Details

Please note, all marine pollution incidents must be reported as soon as is safely possible to the Coastguard Operations Centre (CGOC) Shetland via phone (or via VHF radio) on 01595 6 92976.

The initial verbal report to CGOC Shetland via phone (or VHF radio) must be followed up when practicable with the submission of a Marine Pollution Report (POLREP) via email (or fax) to CGOC Shetland at zone2@hmcg.gov.uk. The POLREP proforma can be found in Appendix A.

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Note that CGOC Shetland will pass the POLREP on to the MCA Counter Pollution and Response Branch, who will advise on actions to be taken, and at the same time issue it to other relevant authorities.

NatureScot must be consulted if an oil spill occurs within Scottish territorial waters (within 12 nm) or outside territorial waters if the spill is likely to affect territorial waters or coastline. NatureScot is part of the Scottish Standing EG. Contact is made via email: SNH_MARINE_POLLUTION@nature.scot.

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6.2 Incident Response Process

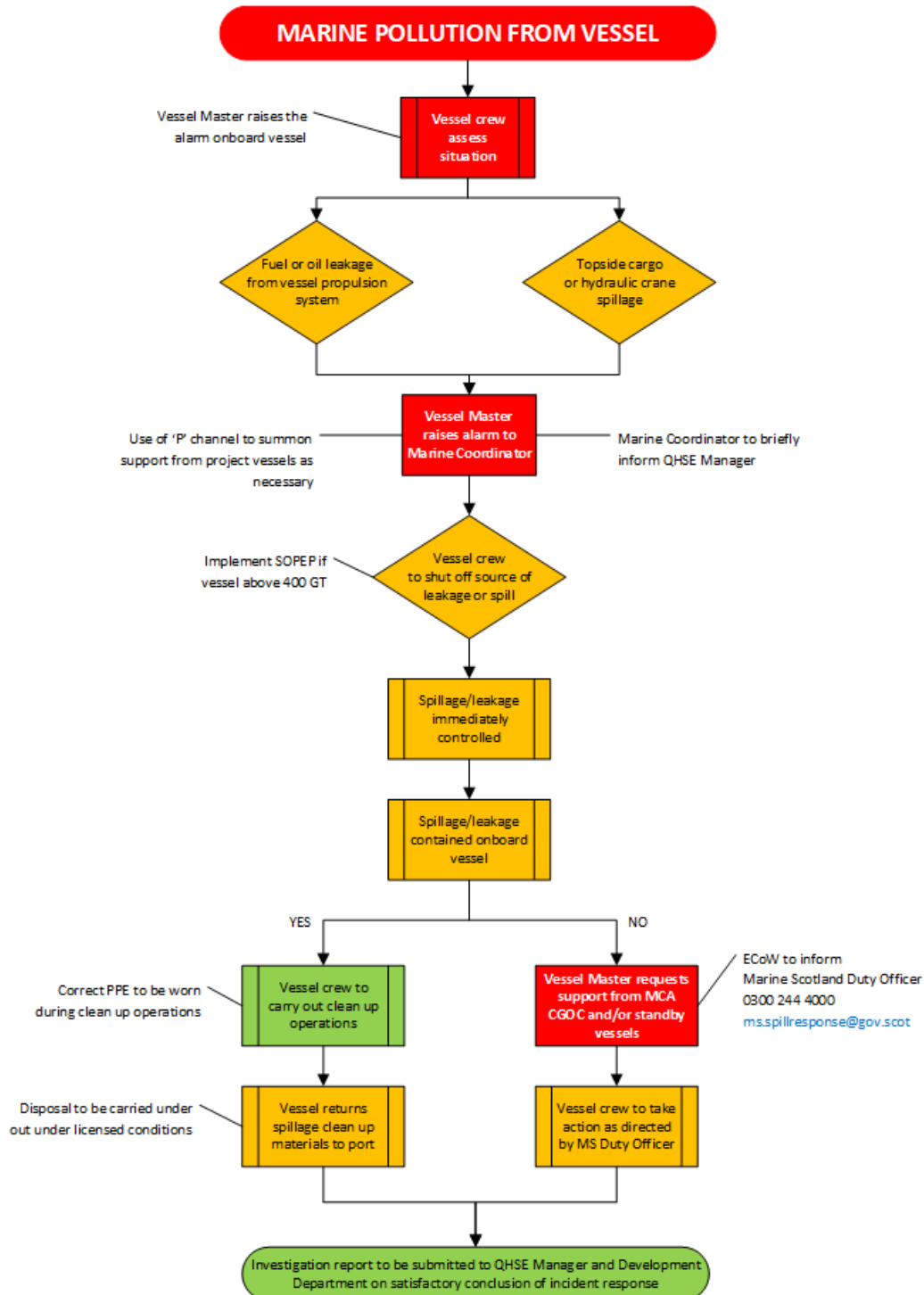


Figure 6-1 Incident response process

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6.3 Evaluation

Based on the information identified in Section 6.1, the Marine Coordinator will make an initial assessment of the emergency, call for Emergency Services (if required), and notify the Moray West QHSE Manager.

The Marine Coordinator to mobilise Tier 1 response personnel to standby and to advise whether incident requires escalation to Tier 2 or Tier 3. If the incident is clearly beyond Moray West's capacity, advise immediate escalation to Tier 2 incident.

Clean-up may not be required if the oil quantity and type spilled looks like it will disperse naturally.

6.4 Initiation

If the incident requires active response, the Marine Coordinator should consider establishing a Command Centre, which can be located at the MCC or other. Refer to list of the response personnel's responsibilities in Section 5.1.1.

Identify whether:

- no key resources are threatened, and it is predicted that the oil will dissipate naturally;
- if no response is feasible; and
- if resources are threatened or affected, whether escalation beyond Tier 1 is appropriate.

If applicable, the Vessel Master should activate the Shipboard Oil Pollution Emergency Plan (SOPEP), or equivalent vessel-specific spill plan.

This information will determine whether the initiation required is:

- a) no active response is necessary beyond observation and reporting;
- b) Tier 1 response is sufficient; or
- c) Tier 2 or Tier 3 response required.

6.5 Mobilisation

Tier 1:

- Mobilise the equipment, labour and materials necessary for the chosen response techniques, including arrangements to place response resources on stand-by while awaiting the order to mobilise.
- Deploy equipment in accordance with the response decisions; for example, identifying vessels from which equipment could be deployed, and placing booms at pre-designated sites to protect key resources, with reference to booming plans annexed to this MPCP and any applicable SOPEP's when known.
- Ensure records of activity, decisions, and expenditure are maintained.

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Table 6-1 General response strategies according to spill Tier and oil type

Tier and Resources	Response Strategies	
	Non-persistent Oil (MGO and Diesel)	Persistent Oil (Hydraulic and Lube Oils)
Tier 1	Natural dispersion and monitoring (using support vessel). If safe to do so, agitate using standby vessel propeller ('prop-wash'), by steaming through the slick at speed.	Natural dispersion and monitoring. Mechanical recovery where possible. Small booms and sorbents for Tier 1, beyond that capacity – escalate to Tier 2.
TIER 2 AND 3 INCIDENTS ARE NOT COVERED BY THE SCOPE OF THIS MPCP		
Tier 2	Natural dispersion and monitoring. Chemical dispersion only if safety or environmental sensitivities are threatened, in consultation with the relevant authorities.	Consult specialist support from an Emergency Response Team PLACEHOLDER . Continue to monitor and evaluate strategy using aerial surveillance. Boat-based dispersant application likely to be the primary response strategy – liaise with Emergency Response Team. PLACEHOLDER Consider mechanical recovery where possible. Mobilise shoreline containment and recovery equipment if shoreline is threatened – spill response contractor to engage additional support if necessary.
Tier 3	Natural dispersion and monitoring (aerial surveillance). Chemical dispersion only if safety or environmental sensitivities are threatened, in consultation with the relevant authorities.	Contract specialist services through the appointment of a Tier 2/3 spill response contractor. Continue to monitor and evaluate strategy using aerial surveillance. Aerial dispersant application likely to be the primary response strategy – through appointment of a Tier 2/3 spill response contractor. Consider mechanical recovery where possible. Mobilise shoreline containment and recovery equipment if shoreline is threatened.

7 At Sea Clean-Up

7.1 Tier 1

At sea response to a Tier 1 incident is restricted to minimal releases of oil to the water surface that Moray West personnel have the capacity to respond to.

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Procedures are as follows:

- Follow procedures outlined in Section 6 of this document to determine whether the incident can be managed under Tier 1. If this is not the case, proceed with immediate escalation to Tier 2.
- If it is determined that the incident is Tier 1, proceed with SOPEP procedures and/or instructions provided with spill kits.
- Ensure all waste material is stored in secure/bunded areas and that all materials used in clean-up are recovered.

7.2 Tier 2 and Tier 3

In the event of a Tier 2 or Tier 3 incident, follow procedures outlined in Section 6 of this document. Immediate mobilisation of the nominated Tier 2 or Tier 3 contractor is recommended.

In the event of a spill of national significance (Tier 3), as-per the NCP, the following procedures are to be adhered to:

- Moray West to provide personnel for the MRC established by the MCA.
- Moray West personnel to provide the MRC with support as necessary, related to strategies and/or resources to support containment, dispersal, mitigation and/or recovery of pollutants. This may include actions including assistance towards:
 - following methods of response:
 - assessing and monitoring;
 - supporting dispersant spraying operations; and
 - mechanical recovery operations.

Please note:

- National pollution response assets are controlled by the MCA and will be managed by the MRC.
- Moray West to consider use of national assets when resources become overwhelmed. Contact the MCA's Counter Pollution and Salvage (CPS) Branch or the MRC;
- Contractors can request assistance where planned and currently deployed response capability is overwhelmed or may be in the future. It is recommended that Moray West seek advice from their nominated Tier 2 contractor with regard to escalation if required.
- The MRC can supply support and advice as necessary. Where national resources are allocated and deployed, they are accompanied and operated by MCA contractors at all times.

Please note, in the event of national assets being mobilised, the MCA/MRC may undertake the following:

- tasking of aerial surveillance;
- triggering/activation of an EG;
- tasking of aerial dispersant spraying;

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- arranging for inspection of the ship by an MCA Marine Surveyor or other qualified person (if applicable); and
- preparing and/or deploying:
 - dispersant spraying aircraft and ships
 - oil recovery equipment
 - cargo transfer equipment
 - counter pollution equipment stockpile
 - an Emergency Towing Vessel or other commercial towage.

7.2.1 Dispersants

In response to oil pollution from a vessel, the MCA's MRC may initiate and manage a dispersant spraying operation.

Please note that approval from the appropriate licensing authority is required for dispersant spraying in water depths of less than 20 metres, or within one nautical mile of any such area.

Operational use of dispersants is monitored by the MCA as the National Competent Authority with responsibility delegated to the Marine Response Centre when activated.

8 Shoreline Clean-Up

Under this MPCP, shoreline contamination and any associated response activities are beyond the scope of a Tier 1 incident and would fall under either a Tier 2 or Tier 3 incident. On this basis, the information contained in this section should be considered for reference only and has been included to assist Moray West regarding compliance with UK government procedures.

PLACEHOLDER – INSERT MORAY WEST TIER 2 AND TIER 3 (IF APPLICABLE) CONTRACTOR DETAILS, KIT LIST AND SOP'S ONCE KNOWN.

In the event of a spill that affects shorelines, as-per the NCP, the following procedures are to be adhered to:

- In the event of shoreline oiling, it is possible that a Local Resilience Forum (LRF) is formed (composed of multi-agency, policy and planning bodies). The LRF forms the SCG which will take responsibility for any required multi-agency management of an incident. It also sets the policy and strategic framework for response and recovery. Depending on the nature of the incident, Moray West personnel may be required to input information into this forum.
- The SCG may be activated in the event of shoreline oiling irrespective of whether Moray West's nominated Tier 2 or Tier 3 contractors have been mobilised or not. If Moray West contractors are involved, the SCG may oversee activities within the framework of local requirements and environmental considerations.

Specific response challenges posed by environmentally and/or economically sensitive areas, oiled wildlife and challenges faced in large, complex shoreline clean-up operations fall outside the scope of this MPCP. In the event of such an incident, Moray West personnel will assist national authorities and other assets mobilised to respond where appropriate.

9 Oiled Wildlife Procedures

A provision for dealing with oiled wildlife, particularly birds, will require specialist advice. It is assumed this would fall under Tier 2 or Tier 3 response.

Response strategies will be focused on minimising potential risks to wildlife; however, in the event of an oil or chemical spill that may impact wildlife, the points in Table 9-1 will be considered. The response will be proportionate to the circumstances of the incident and will take into consideration aspects such as protected species and the time of year. Severe weather may restrict the ability to respond to oiled wildlife if the response would pose a risk to human health/life.

Equipment and trained personnel will be available – either directly employed by Moray West or contracted.

Table 9-1: Oiled wildlife response options (adapted from European Oiled Wildlife Assistance (EUOWA) and Sea Alarm)

Aim	Actions that can be considered	What is “best practice”?	Handbooks and Guidelines that provide guidance
Prevent and minimise impacts on wildlife populations	Oil Combat at sea	Oil spill response plan Availability of vulnerability maps that include (seasonal) distribution of vulnerable wildlife at sea Pre-identified biologists to assist with aerial surveillance and interpretation of real-time field data	Handbook on Oil Impact Assessment ⁷ Wildlife Response Preparedness ⁸

⁷ Camphuysen, K., Bao, R., Nijkamp, H., Heubeck, M. (2007). Handbook on Oil Impact Assessment, available at <https://www.sea-alarm.org/publications/guidance-documents/>

⁸ IPIECA (2014). Wildlife response preparedness – Good practice guidelines for incident management and emergency response personnel, IOGP Report 516, London

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	Protect sensitive areas (booming off)	Availability of vulnerability maps that include (seasonal) distribution of vulnerable wildlife in coastal areas	Handbook on Oil Impact Assessment ⁷
	Deterrence and hazing	Have predefined plans in place with reference to effective species-specific methods	North American handbooks: Bird Hazing Manual ⁹
	Pre-emptive capture	Having predefined plans in place, which include directions for the treatment and fate of captured animals	Case studies in literature
Prevent the continued suffering of individual oiled animals	(Live animals) capture, clean, rehabilitate and release	Systematically search beaches Operate rehabilitation facilities using internationally approved methodologies/protocols Apply agreed triage criteria Band animals that are ready to be released Conduct post release monitoring research	Key Principles on rehabilitation of oiled wildlife ¹⁰ Handbook on Oil Impact Assessment ⁷
	(Live animals) capture, euthanise humanely	Systematically search beaches Operate euthanasia facilities Have agreed euthanasia techniques	Handbook on Oil Impact Assessment ⁷ Wildlife Response Preparedness ⁸
Assess impacts on wildlife populations	(Dead animals) collect, quantify mortality per species	Systematically search beaches	Handbook on Oil Impact Assessment ⁷
Coordinated involvement of multiple stakeholders,	Operate a pre-spill defined plan Have formal agreements with authorities and	Develop and agree an OWR plan before the incident, involving all responders within a clear, integrated command structure	Wildlife Response Preparedness ⁸

⁹ Gorenzel, W. P., Salmon, T.P., (2008). Bird Hazing Manual – Techniques and Strategies for Dispersing Birds from Spill Sites, University of California Agriculture and Natural Resources Publication 21638

¹⁰ IPIECA (2017), Key principles for the protection, care and rehabilitation of oiled wildlife - A technical support document to accompany the IPIECA-IOPG guidance on wildlife response preparedness

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including NGO's and volunteers	stakeholders in place	Have regular training and exercises based on the plan	Examples from various countries in Europe ((www.eurowa.eu))
Health, Safety and Environment	Health and safety of responders at all times as a matter of highest priority Minimise polluted waste and avoid secondary pollution	No wildlife response if health and safety of the responders cannot be guaranteed Require minimum level of training from all accredited responders Instruct and supervise volunteers Provide protective clothing	Wildlife Response Preparedness ⁸ Examples from various countries in Europe (www.eurowa.eu)

10 Response Tracking/Review

Tracking progress in any response is critical. For Tier 1 incidents, the following procedures will be implemented:

- Feedback of the incident status to include whether the release has been stopped and/or controlled, what equipment has been deployed, progress with clean-up and an estimated completion time. This is to be provided to Moray West QHSE Manager.
- Records of personnel on-site, PPE and response equipment that has been used in the incident.
- Any formal reporting procedures will be adhered to, logged and reported where appropriate.

In the event of a Tier 2 or Tier 3 incident, Moray West personnel will provide information where appropriate to the wider incident command team. This may include information such as:

- inputs from aerial surveillance and personnel on-site;
- feedback from site clean-up operations (including status reports); and
- required type and format of the status reports and how these can be made available to the team managing the response.

The plan should incorporate procedures for the continual reassessment of the response as operations progress, in particular whether the scale of the response remains appropriate for the clean-up activity remaining to be completed

11 Termination Criteria

In the event of a Tier 1 incident, termination should be considered when the spilled product and all associated clean-up material and waste has been recovered and disposed of through approved routes. Be aware that minor sheens and stains may remain and may not be recoverable.

In the event of a Tier 2 or Tier 3 incident, industry standard procedures for spill termination decisions will be applied. These may include (but are not limited) to the following:

- liaison and agreement between all interested parties on the level of clean-up appropriate to each location (to include determining clean-up end points based on technical criteria);
- joint surveys to be undertaken by representatives of parties involved in the incident response to monitor progress and decide when agreed end points have been reached;
- standing down equipment for cleaning and maintenance;
- re-ordering consumed materials and repairing or replacing damaged equipment; and
- restoring temporary waste storage and other work sites.

12 Waste Management

Waste management of oil and oiled waste is in line with the waste hierarchy. Decisions on waste storage and the options for treatment, disposal or reuse of waste should be made, considering environmental considerations and legal requirements, including licensing.

Best practice dictates that:

- a health and safety plan is produced before any task involving the handling of waste oil is carried out;
- oil and oiled debris should be segregated from uncontaminated waste;
- segregated oil and oiled waste should be stored in a temporary storage facility;
- consideration should be given to the capacity and management of the chain of transport, stage and treatment facilities;
- consignments should only be handled by licensed waste carriers;
- any waste transfers should be accompanied by a consignment note signed by both parties involved in the transaction such that it leaves a clear audit trail;
- consignment notes should detail the volume and type of waste;
- temporary storage sites for contaminated waste should be identified as near as possible to the potential clean-up sites identified in the risk assessment and shown on relevant maps; and
- contact details for licensed waste carriers and disposal facilities should be included as well as for national licensing authorities.

13 Record Keeping

Record keeping during an incident will detail the following:

- information received (e.g., incident notification, feedback from clean-up operations);
- records of meetings and decisions (including minutes);

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- records of activity (e.g., timesheets, location, personnel details, response equipment, oily waste generation, activities on-site, images/maps and records of support assets such as vessels and vehicles);
- expenditure; and
- results of clean-up actions (e.g., site reports, response reviews).

The above list is applicable to all Tiers of response; however, it should be scaled accordingly to the extent of the incident and clean-up operations.

In the event of a Tier 2 or Tier 3 incident, the record keeping operation may be complex and demand a dedicated team to manage the flow and logging of information. In this event, Moray West personnel may assist information collation in the MCC.

14 Claims and Compensation

Claims management will typically apply to Tier 2 or Tier 3 as Moray West will manage a Tier 1 response internally. In the event of a Tier 2 or Tier 3 incident it is critical to record information as outlined in Section 11 in support of claims being made. Please refer to the NCP¹¹ for details. Further information can be found in the IOPC Funds Claims Manual available at [IOPC FUNDS | Home](#).

15 Training and Exercises

Industry standards advise that the following intervals are applied to oil spill response exercises:

- Tier 1 – every 12 months (with more regular checks on equipment supplies and condition);
- Tier 2 – every 24 months; and
- Tier 3 – every 36 months.

¹¹

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478670/151_119_Cost_Recovery_and_Record_Keeping.pdf

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Appendix A – Pollution Reporting Proforma

CG77 POLREP –POLLUTION REPORTING FORM

POLREP forms should be completed by the Vessel Master. Guidance can be found on next page of the Reporting Form

Information which should be provided in initial pollution report				
A	Classification Of report (circle one)	i) Doubtful	ii) Probable	i) Confirmed
B	Date and time	Date	Time	Observer / Reporter
C	Position of pollution (e.g. lat/long)			
	Est. amount of pollution (e.g. size of polluted area, volume / amount spilled)			
	Position of observer			
D	Tide and wind	Speed	Direction	Tide
E	Weather	Conditions	Sea State	Wave Height
F	Characteristics of pollution	Pollution Type (e.g. crude oil)	Appearance (e.g. floating solid)	
G	Source of pollution			
	Cause of pollution			
	Vessel details			
	Course / speed / destination			
H	Vessels in the area			
J	Photographs	Photos taken	Samples taken	
K	Remedial Action taken			
L	Forecast of likely effect of pollution			
M	Name of those informed, other than addressees			
N	Other relevant information			

CG77 POLREP – REPORT FORM GUIDANCE

Information which should be provided in initial pollution report

- A. CLASSIFICATION** of report i) Doubtful ii) Probable iii) Confirmed
- B. DATE & TIME** pollution observed/reported (state UTC or local time), and identity of observer/reporter
- C. POSITION & EXTENT** of pollution - By latitude and longitude if possible, state range and bearing from prominent landmark and estimated amount of pollution, e.g., size of polluted area, amount of oil spilled, or numbers of drums etc lost. When appropriate give position of observer relative to pollution.
- D. TIDE, WIND SPEED and DIRECTION**
- E. WEATHER** conditions & **SEA** state.
- F. CHARACTERISTICS** of pollution - Give type of pollution, e.g., oil, crude or otherwise; packaged or bulk chemicals; or garbage. Also give appearance, e.g., liquid; floating solid; liquid oil; semi-liquid sludge; tarry lumps; weathered oil; discolouration of sea; visible vapour; etc.
- G. SOURCE and CAUSE** of pollution - E.g., from vessel or other undertaking. If from vessel, say whether as a result of apparent deliberate discharge or casualty. If the latter, give brief description. Where possible, give name, type, size, nationality and port of registry of polluted vessel. If vessel is proceeding on its way, give course, speed and destination, if known.
- H. Details of VESSELS IN THE AREA** - To be given if the polluter cannot be identified and the spill is of recent origin.
- I.** Not used
- J.** Whether **PHOTOGRAPHS** have been taken, and/or **SAMPLES** for analysis
- K. REMEDIAL ACTION** taken, or intended, to deal with spillage
- L. FORECAST** of likely effect of pollution - Arriving on beach, with estimated timing
- M. NAMES** of those informed other than addressees
- N.** Any **OTHER** relevant information

Submission of completed form

Completed forms should be sent to zone2@hmcg.gov.uk.

Appendix F – Non-Compliance Reporting Proforma

Moray West Non-Compliance Report			
Date / Time		Report No.	
Originator		Location	
Nature of Non-Compliance			
Provide a brief description of the issue. Include information such as current/construction activity, description, detail of what caused the non-compliance (e.g., too high a hammer energy).			
Actions taken by Contractor / Incident Investigation			
Provide details of the contractor and outcome of the incident investigation.			
Actions taken by Moray West Offshore Client Representative			
Provide information on the immediate action taken by the client representative once the non-compliance was discovered.			
Action taken by the Moray West ECoW			
Provide information on the response/action taken by the ECoW and their advice on the issue.			
Agreed Corrective Measures and Recommendations			
Provide details of the corrective measures taken and recommendations to prevent future reoccurrence of the non-compliance.			
Signatures			
Approved by Moray West ECoW			
Checked by Moray West Offshore Client Representative			
Checked by Moray West Development Manager			