



# Morven North Offshore Wind Array Project

Environmental Impact Assessment Report

**Volume 4, Annex 6: Written Scheme of  
Investigation (WSI) and Protocol for  
Archaeological Discoveries (PAD) (Version 1)**

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## Glossary

Term	Meaning
Applicant (the)	The entity making the Applications; Morven Offshore Wind Limited (MvOWL).
Anomaly	An anomaly is a local variation of an otherwise uniform signal response. In the context of marine geophysics, the word anomaly is often used to indicate the feature causing variation as well as the variation itself.
Archaeological Curator	A curatorial body that provides heritage and archaeological guidance and advice to the Regulator pre- and post-consent.
Designed-in measures	Either primary or tertiary mitigation measures, which are considered inherent to the project's design. Includes: <ul style="list-style-type: none"> <li>• Measures included as part of the project design;</li> <li>• Industry standard measures committed to by the Applicant (including post-consent management plans);</li> <li>• Measures required to meet legislative requirements.</li> </ul>
Environmental Impact Assessment (EIA) Report	A document prepared to provide information on the baseline environment and a systematic assessment of a project's likely significant environmental effects, measures to avoid, prevent, reduce or offset likely significant adverse environmental effects, a description of the reasonable alternatives studied by the developer and a non-technical summary.
Exclusive Economic Zone (EEZ)	An area from the outer limit of the territorial sea up to 200nm from the coastal baseline, over which a sovereign state has rights regarding marine resources.
High Voltage Alternating Current (HVAC)	A system of power transmission and distribution that utilises alternating current at voltages typically exceeding 1000 volts, as defined by the International Electrotechnical Commission (2015). HVAC systems are designed to efficiently deliver electricity over long distances with minimal losses, leveraging transformers to modify voltage levels.
Inter-Array Cables	Cables connecting wind turbines to each other and to Offshore Substation Platforms.
Interconnector Cables	Cables connecting Offshore Substation Platforms to each other.
Marine Directorate Licensing Operations Team (MD-LOT)	The part of the Scottish Government's Marine Directorate responsible for assessing and administering applications for marine licences and Section 36 consent (offshore) in Scotland.
Marine licence	A licence granted under either the Marine and Coastal Access Act 2009 or, within Scottish territorial waters, the Marine (Scotland) Act 2010.
Mean High Water Springs (MHWS)	The average tidal height throughout the year of two successive high waters during those periods of 24 hours when the range of the tide is at its greatest.
Micrositing	The action of placing infrastructure within a certain range of its planned position.
Morven North Boundary	Boundary within which the wind turbines and foundations, Offshore Substation Platforms and foundations, inter-array and interconnector cables and associated infrastructure for Morven North will be located.
The Morven North Offshore Wind Array Project (hereafter "Morven North")	The Morven North Offshore Wind Array Project which includes the wind turbines and foundations, Offshore Substation Platforms and foundations, inter-array and interconnector cables and associated infrastructure located within the Morven North Boundary. Consent for the export cables for Morven North will be sought separately.

Term	Meaning
Morven Option Lease Agreement Site (hereafter "Morven Site")	The 859km <sup>2</sup> area awarded to the Applicant as a result of the ScotWind leasing round and located in Plan Option area E1. Morven North and Morven South are two distinct projects, located within the Morven Site.
Morven South Boundary	Boundary within which the wind turbines foundations, Offshore Substation Platforms and foundations, inter-array and interconnector cables and associated infrastructure for Morven South will be located.
The Morven South Offshore Wind Array Project (hereafter "Morven South")	The Morven South Offshore Wind Array Project, which includes the wind turbines and foundations, Offshore Substation Platforms and foundations, inter-array and interconnector cables and associated infrastructure located within the Morven South Boundary. Consent for the export cables for Morven South will be sought separately.
Nominated Contact	The formal point of contact for all matters relating to the PAD between the Applicant, its subcontractors, the Site Champions, the Retained Archaeologist, the Archaeological Curators and ultimately the Regulator. The Nominated Contact could be the scheme's Environmental Manager, Project Manager or any other co-ordinator that the Applicant feels is appropriate and effective in acting in this role.
Offshore Substation Platforms (OSPs)	Offshore Substation Platforms comprise the support structure, topside and electrical components used for collecting and/or converting the electricity generated by the wind turbines. These Offshore Substation Platforms can be divided into two types: <ul style="list-style-type: none"> <li>• High Voltage Alternating Current collector substations;</li> <li>• High Voltage Direct Current converter substations.</li> </ul>
Retained Archaeologist	The Retained Archaeologist is the archaeological contractor or consultant appointed by the Applicant to implement the WSI.
Scottish Archaeological Research Framework (ScARF)	A comprehensive resource designed to support and enhance archaeological research in Scotland. ScARF provides an overview of the current state of research in Scottish Archaeology and outlines key research questions and priorities for future study.
Scottish Ministers	The decision makers with regard to Marine Licence(s) and Section 36 Consent applications in Scottish Offshore and Territorial Waters.
Scottish Offshore Waters	The area between the seaward boundary of Scottish Territorial Waters and the seaward boundary of the Scottish part of the EEZ.
Scottish Territorial Seas	The territorial waters of Scotland that extend from MHWS out to 12 nm, as defined by the Marine (Scotland) Act 2010.
Site Champion	The person formally appointed by the Applicant to be directly responsible for reports arising from a particular activity location. The Site Champion could be a Vessel Master, a Construction Foreman or any other person in a position to control the immediate works. .
United Kingdom Hydrographic Office (UKHO) "Dead" record	In the UKHO dataset, a recorded position or previously identified material that has since not been detected by repeated surveys, therefore considered to no longer exist at the given location. It may be that the material has become buried or dispersed, has disintegrated over time, or was never present at that location.
UKHO "Live" Record	Material that has been positively identified on the seabed and reported to UKHO, for example through geophysical survey or diver report.
UXO Consultant	The UXO contractor or consultant appointed by the Applicant to advise on, assess, identify and if necessary clear UXO for the project. .

## Acronyms

Acronyms	Meaning
2D UHRS	2-Dimensional Ultra High Resolution Seismic
AC	Archaeological Curator
AD	Anno Domini
AEZ	Archaeological Exclusion Zone
BP	Before Present
CifA	Chartered Institute for Archaeologists
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
GIS	Geographical Information Systems
HES	Historic Environment Scotland
HMPA	Historic Marine Protected Area
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
JCCC	Joint Casualty and Compassionate Centre
LGM	Last Glacial Maximum
MBES	Multibeam Echo Sounder
MD-LOT	Marine Directorate Licensing-Operations Team
MHWS	Mean High Water Springs
MOD	Ministry of Defence
NRHE	National Record of the Historic Environment
O&M	Operation and Maintenance
OASIS	Online Access to the Index of Archaeological Investigations
OSPs	Offshore Substation Platforms
PAD	Protocol for Archaeological Discoveries
pARCH	Potential Archaeology
pUXO	Potential Unexploded Ordnance
RA	Retained Archaeologist
ROV	Remotely Operated Vehicle
RoW	Receiver of Wreck
SBP	Sub-bottom Profiler
ScARF	Scottish Archaeological Research Framework
SSS	Sidescan Sonar

Acronyms	Meaning
TEZ	Temporary Exclusion Zone
TVG	Transverse gradiometer
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
UXO	Unexploded Ordnance
WSI	Written Scheme of Investigation

## Units

Unit	Meaning
km	Kilometre
km <sup>2</sup>	Kilometres squared
m	Metre
°	Degrees

# 1 Written Scheme of Investigation

## 1.1 Introduction

- 1.1.1.1 The Morven North Offshore Wind Array Project (hereafter “Morven North”) and the Morven South Offshore Wind Array Project (hereafter “Morven South”) are both located within the Morven Option Lease Agreement Site (hereafter “Morven Site”) in Scottish offshore waters (Figure 1.1). Morven North is located approximately 61km from the Aberdeenshire coast (at its closest point) and Morven South is located approximately 86km from the Aberdeenshire coast (at its closest point). Each project will comprise wind turbines, Offshore Substation Platforms (OSPs), associated foundations, inter-array and interconnector cables and cable protection. The offshore export cables of Morven North and Morven South will be consented separately.
- 1.1.1.2 Morven North is situated northwest of Morven South. The external boundaries of Morven North and Morven South correspond with the boundaries of the Morven Site.
- 1.1.1.3 This Written Scheme of Investigation (WSI) and Protocol for Archaeological Discoveries (PAD) (Version 1) has been prepared for Morven North and Morven South and details the principles to be implemented to ensure the protection of marine archaeological assets through all three phases of Morven North and Morven South (construction, Operation and Maintenance (O&M), and decommissioning). The measures within this WSI and PAD (Version 1) encompass the range of development options under consideration for Morven North and Morven South to allow post-consent flexibility in the final design. This WSI and PAD (Version 1) has been developed in line with Volume 2, Chapter 14: Marine Archaeology of the Morven North EIA Report; Volume 2, Chapter 14: Marine Archaeology of the Morven South EIA Report; and Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report).
- 1.1.1.4 Post-consent, this WSI and PAD (Version 1) will be updated and finalised in consultation with Historic Environment Scotland (HES) and will be submitted to the Marine Directorate – Licensing Operations Team (MD-LOT) as the licensing authority, for approval prior to the commencement of licensable activities. The post-consent WSI and PAD will come into force when it has been approved by MD-LOT. However, any pre-commencement activities undertaken prior to that point should strive to be undertaken in line with this WSI and PAD (Version 1).
- 1.1.1.5 The post-consent WSI and PAD will be monitored and updated throughout the lifetime of the development to ensure that mitigation measures are appropriate for all activities associated with Morven North and Morven South.

### 1.1.2 Project description

- 1.1.2.1 Morven North and Morven South include the following offshore Infrastructure components:
- Wind turbines (each comprising a tower section, nacelle, hub and three rotor blades) and associated support structures and foundations;
  - Offshore Substation Platforms (OSPs) and associated support structures and foundations, including High Voltage Alternating Current (HVAC) collector substation platforms and High Voltage Direct Current (HVDC) converter substations (this could be a single platform or two platforms linked by a bridge);
  - Scour protection for wind turbine and OSP foundations;
  - A network of inter-array cabling linking the individual wind turbines to each other and to the OSPs, plus interconnector cables connecting OSPs to each other. The inter-array and interconnector cables will be buried where possible, however where minimum burial depth is not achievable, external protection will be employed.
- 1.1.2.2 This WSI and PAD (Version 1) applies to activities seawards of Mean High Water Springs (MHWS), and to licensable activities associated with Morven North and Morven South.
- 1.1.2.3 The Morven North Marine Archaeology Study Area and the Morven South Marine Archaeology Study Area were used for assessment purposes (Volume 2, Chapter 14: Marine Archaeology of

the Morven North EIA Report; Volume 2, Chapter 14: Marine Archaeology of the Morven South EIA Report; and Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report) (Figure 1.1).

1.1.2.4 All coordinates in this WSI and PAD (Version 1) are given as geographic Latitude and Longitude, referred to as WSG84.

### 1.1.3 Aims and objectives

1.1.3.1 The aim of this WSI and PAD (Version 1) is to present the designed-in measures and mitigation to be undertaken by Morven Offshore Wind Limited (MvOWL, hereafter referred to as “the Applicant”) prior to and throughout the construction, O&M, and decommissioning phases of Morven North and Morven South. This WSI and PAD (Version 1) is informed by pre-application consultation with HES and MD-LOT (reported in Volume 2, Chapter 14: Marine Archaeology of the Morven North EIA Report; and Volume 2, Chapter 14: Marine Archaeology of the Morven South EIA Report) and the baseline review of known and potential archaeology within the Morven North and Morven South Marine Archaeology Study Areas outlined in Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report.

1.1.3.2 The objectives of the WSI and PAD (Version 1) are as follows:

- To inform the development of a post-consent WSI and PAD.
- To fulfil the requirements of the Archaeological Curator (AC) in respect of archaeological monitoring and mitigation of effects of works.
- To establish the exact position and extent of any Archaeological Exclusion Zones (AEZs) and Temporary Exclusion Zones (TEZs).
- To ensure consultation with archaeologists on all elements of design that have the potential to impact archaeological sites and materials.
- To ensure that any further geophysical and geotechnical investigations required are subject to archaeological input, review, recording and sampling where required.
- To ensure archaeological involvement in any proposed Remotely Operated Vehicles (ROVs) obstruction surveys.
- To propose measures for the mitigation of impacts to archaeological assets encountered during further surveys and investigations, or during activities associated with construction, O&M and decommissioning.
- To establish the reporting and archiving requirements for the archaeological works undertaken during all phases and post-construction monitoring.

### 1.1.4 Designed-in measures and mitigation

1.1.4.1 The designed-in measures and mitigation agreed to in Volume 2, Chapter 14: Marine Archaeology of the Morven North EIA Report and Volume 2, Chapter 14: Marine Archaeology of the Morven South EIA Report are set out in the table below, along with where each commitment is addressed in this document.

**Table 1.1: Mitigation and monitoring commitments**

Mitigation I.D. number	Commitment	Where addressed
MM-25	Implementation of Archaeological Exclusion Zones (AEZs) and Temporary Exclusion Zones (TEZs) around receptors identified as having high and medium archaeological potential.	Further details of AEZs are provided in Section 1.5.1.
MM-26	Retained Archaeologist to be consulted in the preparation of any pre-construction ROV surveys and, if appropriate, in monitoring/checking of data.	Further details of which are provided in Section 1.4.2.
MM-27	Operational awareness of the location of those archaeological anomalies identified as having a low potential and designing or micrositing to avoid them if possible.	Further details are provided in Section 1.4 and in Section 1.5.3.
MM-30	Mitigation of unavoidable direct impacts on marine archaeological receptors will be applied on a case-by-case basis, in consultation with MD-LOT, but could include, inter alia, recovery, relocation, excavation, conservation, stabilisation and/or recording of the receptor.	Further details of which are provided in Section 1.6.
MM-31	Development, agreement and implementation of an archaeological Offshore Written Scheme of Investigation and Protocol for Archaeological Discoveries.	Further details are provided in Section 1.6.1, Section 1.8, Appendix A and this document.
N/A	Monitoring of AEZs will be carried out to confirm that no impact has occurred to the archaeological receptors within AEZs as a result of Morven North and/or Morven South (The Crown Estate, 2021).	Further details of which are provided in Section 1.4.2.

### 1.1.5 Research frameworks

1.1.5.1 Current guidance indicates that a WSI should “set out the importance of research frameworks in setting objectives that are delivered through realisation of the work” (The Crown Estate, 2021).

1.1.5.2 Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report, and this WSI and PAD (Version 1), were developed in line with the research objectives identified by research frameworks such as the Scottish Archaeological Research Framework (ScARF) (ScARF, 2012). Other regional or practice specific frameworks may be deemed relevant, depending on specific packages of work undertaken.

1.1.5.3 The identified objectives derived from relevant research frameworks will also be used to guide the advice from the Retained Archaeologist (RA) to the Applicant. Connections between the relevant research frameworks, site specific investigation aims and objectives, and specific work packages will be identified within any method statements supplied before the onset of any archaeological work.

1.1.5.4 Archaeological work and reporting under the WSI will tie outcomes into the relevant research frameworks to ensure the knowledge dissemination to those areas where there is a demonstrable need for further understanding.

1.1.5.5 The objectives relevant to Morven North and Morven South from ScARF are as follows:

- To match multi-disciplinary techniques of interpretation and synthesis with recent technological advances, particularly in the field of non-intrusive survey techniques. The

application of such techniques to shipwrecks and extant vessels offers a remarkable opportunity to provide information on the economy of maritime communities;

- To broaden the basis of data retrieval to include every available and relevant source, technique and academic discipline. Due to the pervasive nature of the marine and maritime historic landscape, a holistic approach must be more fully adopted that incorporates evidence from a variety of sources, including, but not limited to: commercial and research archaeology; offshore development; local and national societies; techniques including photography and geophysics; and disciplines including history; ethnology; cultural studies; folklore; and architecture.

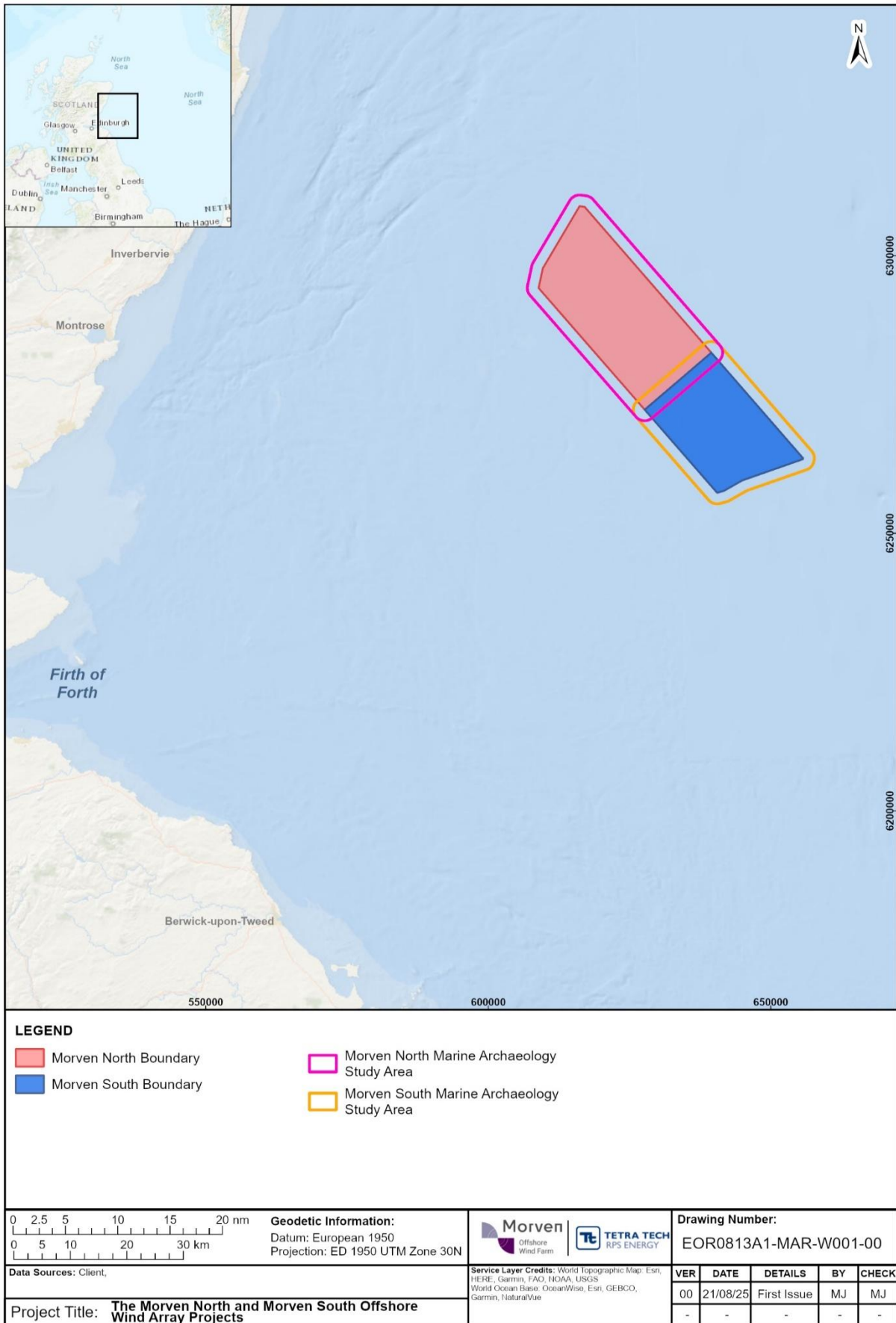


Figure 1.1: Morven North Marine Archaeology Study Area and Morven South Marine Archaeology Study Area

## 1.2 Baseline

### 1.2.1 Overview

1.2.1.1 The baseline in this WSI (Version 1) is summarised from Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report.

1.2.1.2 The Morven North Marine Archaeology Study Area and Morven South Marine Archaeology Study Area are defined as the Morven North Boundary and Morven South Boundary (respectively) with an additional 2km buffer (Figure 1.1). The following archaeological assets were identified within the Morven North Marine Archaeology Study Area and Morven South Marine Archaeology Study Area:

- known wrecks and obstructions;
- recorded vessel losses;
- geophysical anomalies of high, medium and low potential.

### 1.2.2 Designated sites

1.2.2.1 No designated sites have been identified within the Morven North Marine Archaeology Study Area nor the Morven South Marine Archaeology Study Area.

### 1.2.3 Submerged prehistoric archaeology

1.2.3.1 The potential for submerged prehistoric archaeology to be present within the Morven Site, which includes assets such as chance finds, deposits containing archaeological material, or submerged landscapes, was characterised through the analysis of site specific geophysical and geotechnical data and a desk-based review (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report).

1.2.3.2 There are no known submerged prehistoric archaeology assets in the Morven Site.

1.2.3.3 The potential for the survival of submerged prehistoric archaeology within the Morven Site is very low. Pleistocene deposits which are predominantly either glacial or marine have been identified in the geophysical and geotechnical survey data. The stages of marine transgression indicate that the Morven Site has remained submerged from shortly after the Last Glacial Maximum (LGM). This indicates that the environment was likely inhospitable for humans during most of the Palaeolithic and Mesolithic periods.

1.2.3.4 Geoarchaeological analysis of 23 boreholes from 13 locations across the Morven Site has taken place, with Stage 1 geoarchaeological assessment undertaken on all cores (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report). Stage 2 analysis has also been undertaken on five of the cores which found shallow marine to marine depositional environments in the relevant deposits, with some associated proglacial environments (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report). There is therefore no potential for the survival of prehistoric archaeological material within the Morven Site, and only the likelihood for deposits of low geoarchaeological potential.

### 1.2.4 Maritime and aviation archaeology

1.2.4.1 There are no known aviation archaeology assets, and eight known maritime records (primarily from the United Kingdom Hydrographic Office (UKHO) dataset) in the Morven North Marine Archaeology Study Area and the Morven South Marine Archaeology Study Area (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report).

1.2.4.2 Six of the eight UKHO records are listed as “live”, meaning that archaeological material has been positively identified on the seabed by either geophysical survey data or diver reports and is therefore considered to exist at this location. Four of these records have also been located by the site-specific geophysical survey and relate to wreck sites within the Morven North Boundary. One

of the records has been located by the site-specific geophysical survey and relates to a wreck site within the Morven South Boundary. A single record, UKHO 3170, is located outside the Morven Site and so out of the coverage of the geophysical survey data but is located within the Morven North Marine Archaeology Study Area. The other two UKHO records are listed as “dead” by UKHO and so have not been witnessed in previous surveys, these have also not been identified by the site-specific geophysical survey.

- 1.2.4.3 A geophysical anomaly is classified as having high archaeological potential if it is almost certainly of anthropogenic origin and likely to be of archaeological significance (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report). These tend to be the remains of wrecks, the suspected remains of wrecks, or known structures. Five high potential anomalies have been identified in the geophysical survey data in the Morven North Marine Archaeology Study Area, four of which correlate with UKHO records (Figure 1.2). There are no high potential anomalies located within the Morven South Marine Archaeology Study Area.
- 1.2.4.4 A geophysical anomaly is classified as having medium archaeological potential if it is believed to be of anthropogenic origin but would require further investigation to establish its archaeological significance (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report). Examples may include larger unidentifiable debris or clusters of debris, unidentifiable structures, or significant magnetic anomalies. Nine medium potential anomalies have been identified in the Morven North Marine Archaeology Study Area, four are present in the Morven South Marine Archaeology Study Area. One anomaly, MOR\_135, is located within the Morven North Marine Archaeology Study Area and is also within the Morven South Boundary.
- 1.2.4.5 A geophysical anomaly is classified as having low archaeological potential if it is potentially of anthropogenic origin but is unlikely to be of archaeological significance (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report). Examples may include discarded modern debris such as rope, cable, chain, or fishing gear; small, isolated anomalies with no wider context; or small boulder-like features with associated magnetometer readings. There are 86 low potential anomalies within the Morven North Marine Archaeology Study Area. Four of these are within the Morven North Marine Archaeology Study Area and also the Morven South Boundary. There are 59 low potential anomalies in the Morven South Marine Archaeology Study Area. Three of these are within the Morven South Marine Archaeology Study Area and also the Morven North Boundary. In total 137 low potential anomalies have been identified. With the current data these are thought to be unlikely to be of archaeological significance, however there is the potential that some of these anomalies represent assets with archaeological significance. More detail on the geophysical anomalies can be found in the Marine Archaeology Technical Report (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report).
- 1.2.4.6 There is the potential for currently unknown maritime archaeology assets from all periods to be present in the Morven North Marine Archaeology Study Area and the Morven South Marine Archaeology Study Area (Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report). There is also the potential for previously unknown aviation wreck sites to be present in the Morven North Marine Archaeology Study Area and the Morven South Marine Archaeology Study Area.

## 1.3 Responsibilities and commitments

### 1.3.1 Introduction

- 1.3.1.1 This section sets out the responsibilities of the relevant parties and the lines of communication. This aims to ensure that the archaeological mitigation measures described within the WSI and PAD are fully implemented in a timely manner that does not interfere with the smooth running of Morven North and Morven South across all project phases.

### 1.3.2 Contacts

- 1.3.2.1 The relevant contacts are given below in Table 1.2.

**Table 1.2: Relevant parties and contact details for archaeological works and discoveries**

Contact	Address	Email	Phone
Applicant	TBC, to be finalised for the post-consent WSI.	TBC	TBC
Offshore Consents Manager	TBC	TBC	TBC
Nominated Contact	TBC	TBC	TBC
Retained Archaeologist	TBC	TBC	TBC
MD-LOT (Regulator)	Scottish Government 375 Victoria Road Aberdeen AB11 9DB	MD.MarineLicensing@gov.scot	0300 244 5046
Historic Environment Scotland (Archaeological Curator)	Longmore House Salisbury Place Edinburgh EH9 1SH	HMConsultations@hes.scot; HMenquiries@hes.scot	TBC
Receiver of Wreck (RoW)	The Maritime and Coastguard Agency Spring Place 105 Commercial Road Southampton SO15 1EG	row@mca.gov.uk	0131 247 4120
Joint Casualty and Compassionate Centre (JCCC)	JCCC Innsworth House Imjin Barracks Gloucester GL3 1HW	dbj-jcccgroupmailbox@mod.gov.uk DBS-MODWarDetectives@mod.gov.uk	TBC

### 1.3.3 Responsibilities

#### *The Applicant*

- 1.3.3.1 The responsibility for developing and implementing (once approved by MD-LOT) the post-consent WSI and PAD rests with the Applicant and its appointed representatives, in consultation with the RA. The Applicant should ensure that its agents, contractors and supply chain partners are contractually bound to adhere to the terms of the post-consent WSI and PAD.
- 1.3.3.2 The Applicant will retain the services of a suitably qualified and experienced archaeological contractor as the RA. Following the grant of consent, the Applicant will provide the RA with the programme of construction and ensure that they are informed of updates to the programme in a timely manner. In particular, they will notify the RA in adequate time prior to any geophysical, geotechnical, ROV or diver investigations in order to allow for archaeological input into the design of these activities if appropriate. The Applicant will also ensure that the RA is provided with all relevant project datasets.
- 1.3.3.3 The Applicant will commission archaeological method statements from the RA prior to works being undertaken that may impact the seabed and will submit any archaeological method statements or reports to MD-LOT.

- 1.3.3.4 The Applicant will ensure communication with MD-LOT, will seek advice from them as appropriate, and will ensure that discoveries of archaeological importance are communicated to them as soon as is reasonably practical. If appropriate, the Applicant may delegate this task to the RA. The Applicant will be kept informed of any contact between the RA and MD-LOT.
- 1.3.3.5 The Applicant will be responsible for adhering to all legal obligations, including with regard to the Merchant Shipping Act 1995.

### ***Retained Archaeologist***

- 1.3.3.6 The RA will ensure the effective implementation of the WSI and PAD and other relevant commitments in relation to marine archaeology.
- 1.3.3.7 In relation to the implementation of the WSI, the RA will report to the Applicant or their named representative. Interaction between the RA and the Applicant's construction or other works teams will be administered by the Applicant or their appointed representative.
- 1.3.3.8 The responsibilities of the RA will include:
- maintaining, monitoring, reviewing and updating the WSI as required;
  - advising the Applicant on the activities that require archaeological involvement;
  - ensuring the scope of work specifications for Morven North and Morven South meet archaeological requirements;
  - liaising with the Applicant regarding timescales for completion of site investigations to ensure sufficient time is available to complete all archaeological work in accordance with the WSI;
  - advising the Applicant on the proposed micro-siting of infrastructure based upon archaeological results from pre-application and pre-construction site investigation surveys;
  - preparing and issuing method statements to the Applicant, who will then seek approval from MD-LOT;
  - undertaking packages of archaeological work or commissioning an archaeological contractor to complete archaeological works;
  - monitoring the implementation of the PAD;
  - providing advice in the event of a discovery of archaeological interest;
  - preparing, or monitoring the preparation of, archaeological reports as appropriate and issuing any reports to the Applicant, who will then deliver to MD-LOT;
  - advising the Applicant on final arrangements for the analysis, archive deposition, publication and popular dissemination of the results of the archaeological investigations.

### ***Archaeological contractors***

- 1.3.3.9 Suitably qualified archaeological contractors may be contracted by the Applicant or RA to provide services relating to specialised archaeological activities (e.g. excavation, geotechnical analysis etc). The scope of any such services will be defined in an agreed method statement.

### ***Applicant's contractors***

- 1.3.3.10 All contractors, subcontractors, agents and supply chain partners engaged in the construction, O&M and decommissioning of Morven North and Morven South shall:
- familiarise themselves with the generic requirements of the WSI and PAD;
  - assist and afford access to the RA or other archaeological contractors;
  - inform the RA of any environmental constraint or matter relating to health, safety and welfare which they are aware that is relevant to the archaeologists' activities;
  - ensure any discoveries of archaeological interest are reported through the PAD.

### **Archaeological Curator**

- 1.3.3.11 HES are the AC responsible for Scotland's designated historic environment which includes Historic Marine Protected Areas (HMPA). They also give advice on undesignated underwater cultural heritage when they are specified in marine licence conditions and MD-LOT request their advice.
- 1.3.3.12 The AC may monitor the implementation of this WSI through the receipt of archaeological reports (from MD-LOT) and/or through monitoring visits (Section 1.8).
- 1.3.3.13 Contact with the AC will be through the Applicant and MD-LOT unless otherwise agreed.

### **Regulators**

- 1.3.3.14 The regulatory body responsible for enforcing marine licence conditions in Scotland are MD-LOT.
- 1.3.3.15 To encourage timely decisions relating to archaeological mitigation and avoid disruptions to the Morven North and Morven South programmes, MD-LOT will be consulted as soon as practicable on discoveries made during the programme of works. MD-LOT are expected to engage proactively and respond quickly to the Applicant, particularly in cases which could halt works, such as the alteration of TEZs (Section 1.5.2), or the submission of method statements (section 1.4.1). Where method statements, reports or other deliverables are submitted by the Applicant to MD-LOT, their agreement/acceptance will be assumed if no contrary response is received within 30 working days of submission.

### **Other relevant stakeholders**

#### Receiver of Wreck

- 1.3.3.16 The RoW is an official within the Maritime and Coastguard Agency (MCA). Material identified as "wreck" that has either been recovered within United Kingdom (UK) territorial waters (up to 12nm offshore) or brought into UK territorial waters must be reported to the RoW under the Merchant Shipping Act 1995 (section 236).

#### Ministry of Defence

- 1.3.3.17 Under the Protection of Military Remains Act 1986 (section 35), any aircraft that crashed while in military service are automatically protected. Therefore, all discoveries of aircraft must be reported to the JCCC of the Ministry of Defence (MOD).

### **Site Champions and Nominated Contact**

- 1.3.3.18 The Site Champions and Nominated Contact are key positions for the implementation of the PAD (0).
- 1.3.3.19 The Site Champion is the person formally appointed by the Applicant to be directly responsible for implementation of the PAD and producing reports arising from a particular activity location. The Site Champion could be a vessel master, a construction foreman or any other person in a position to control the immediate works.
- 1.3.3.20 The Applicant's Nominated Contact is the formal point of contact for all matters relating to the PAD between the Applicant, its subcontractors, the Site Champions, RA, and the Regulator. The Nominated Contact could be the Environmental Manager, Consents Manager, Project Manager or any other coordinator that the Applicant feels is appropriate and effective in acting in this role. It is critical that all parties hold the Nominated Contact's full contact details and that any changes to the Nominated Contact's details are circulated as soon as possible.

## 1.4 Further site investigation

### 1.4.1 Introduction

- 1.4.1.1 Pre-construction geophysical surveys are anticipated for Morven North and Morven South. ROV surveys are also anticipated for the purposes of Unexploded Ordnance (UXO) identification and (if required) clearance. ROV surveys are the preferred method, however there is also the possibility of diver surveys if required. Archaeological advice from the RA will be obtained prior to any survey work to identify specific objectives to inform the scope of the work in order to fill data gaps and avoid impacts on archaeological assets.
- 1.4.1.2 A detailed method statement will be produced by the RA in advance of each work package (Section 1.7). The method statements will be produced in accordance with relevant guidance (The Crown Estate, 2021).

### 1.4.2 Geophysical survey

- 1.4.2.1 Site specific geophysical surveys were carried out by Gardline between 11 April 2022 and 14 August 2022. The surveys resulted in the mobilisation of a Multibeam Echo Sounder (MBES), a Sidescan Sonar (SSS), a transverse gradiometer (TVG) magnetometer, a parametric Sub-bottom Profiler (SBP) and Two-Dimensional Ultra High Resolution Seismic (2D UHRS).

#### ***Planning***

- 1.4.2.2 Archaeological advice will be obtained prior to any further geophysical survey related to Morven North and Morven South (e.g. engineering, UXO or environmental surveys), in particular pre-construction site investigation surveys in areas where direct impacts to archaeological assets are anticipated and any surveys that could be used to monitor the assets subject to AEZs.
- 1.4.2.3 The archaeological input will take the form of advice from an archaeological geophysicist on the following points:
- available details of sites, features and/or anomalies identified in previous studies;
  - archaeological potential of areas where no existing sites, features and/or anomalies are yet known;
  - geophysical survey specification including design, geophysical sources and acquisition methodology;
  - requirements for processing and interpreting the resulting data (The Crown Estate, 2021).
- 1.4.2.4 Where a survey is carried out primarily to meet archaeological objectives, the survey should be designated wholly by an archaeological geophysicist. The collection of such data will also be supervised by an archaeological geophysicist who may be present on the survey vessel to ensure the quality of these data.
- 1.4.2.5 The survey specifications will be in line with relevant guidance (Historic England, 2025).

#### ***Interpretation***

- 1.4.2.6 Once the surveys have been processed to meet their primary objectives, the survey data, together with factual reports will be made available in digital formats to the RA or a suitably qualified archaeological contractor for archaeological analysis and interpretation.
- 1.4.2.7 Archaeological interpretation may include, *inter alia*:
- assessment of the data quality and its appropriateness for archaeological interpretation;
  - examination of geophysical data within areas that will be subject to project impacts in order to identify as yet unknown anomalies of potential archaeology (The Crown Estate, 2021).

1.4.2.8 The results of relevant surveys will be used to inform the final positioning of seabed infrastructure. Where a direct impact on an archaeological asset is likely to occur, any geophysical anomalies with archaeological potential will be subject to further investigation to determine whether they represent archaeological material. In situations where such investigation suggests high archaeological significance, the anomalies in question will be subject to formal AEZs. The Applicant will consult the RA in advance of the finalisation of the Offshore Infrastructure positions to ensure that known archaeological constraints identified by these surveys, including low potential anomalies, are avoided if possible (Section 1.5).

1.4.2.9 The archaeological results of any further geophysical survey will be compiled as a report by the RA or the archaeological contractor and will include recommendations (if any) for further archaeological work (if any). The report will be submitted to the Applicant by the RA and then on to MD-LOT for approval. The scope of any further work will be agreed between the Applicant and MD-LOT.

### 1.4.3 Geotechnical surveys

1.4.3.1 Due to the low potential for submerged prehistoric archaeology in the Morven North and Morven South, evidenced by the analysis of site specific geophysical and geotechnical data and a desk-based review (MSDS Marine, 2025; Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report), it is not expected that archaeological assessment of geotechnical data and other geoarchaeological assessment will be required in the post-consent phase.

### 1.4.4 Non-archaeological Remotely Operated Vehicle and diver surveys

1.4.4.1 Non-archaeological ROV surveys will often be required for UXO identification and (if required) clearance purposes and in advance of boulder and obstruction clearance work, although they may also be required for other reasons. Diver surveys may also be required. To maximise the benefit of any non-archaeological surveys, archaeological input from the RA will be sought at the planning stage, and if agreed with MD-LOT, resulting data should be subject to archaeological assessment. A list of UXO and/or boulder targets should be provided to the RA at the earliest opportunity.

1.4.4.2 Advice from the RA may include:

- the available details of sites and/or anomalies identified in Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report;
- the type and level of ROV positioning, voice recording and video/still recording to be utilised;
- the type of sites and finds to be reported and recorded.

1.4.4.3 Where archaeological assets are projected to be impacted by construction activities, but which are not due to be investigated as potential UXO (pUXO) or otherwise, MD-LOT may request them to be investigated as potential Archaeology (pARCH) targets during pUXO investigation surveys using the same or similar survey methodology.

1.4.4.4 Target investigation reports will be supplied to the RA for review regularly, and as soon as practicable following survey. If requested, video, geophysical, sonar and other digital data will also be supplied to the RA. If wreck material is relocated during this process, as-found and as-left locations will be provided to the RoW.

1.4.4.5 If the target is in an AEZ, the Applicant will consider provisions for a suitably qualified archaeologist to be present either as an observer on the survey vessel or as an embedded diver in order to optimise archaeological results and therefore reduce the need for repeat surveys. The methodology will be agreed in advance with MD-LOT by a method statement.

### 1.4.5 Archaeological Remotely Operated Vehicle and diver survey

1.4.5.1 Archaeological ROV or diver surveys can be employed to ground truth other forms of survey, or in order to characterise assets or confirm significance assessments. Such surveys can also be

employed in order to clarify the extent of a site to alter (enlarge, reduce, move, or remove) AEZs as set out in Section 1.5. They would typically be required when direct impacts to marine archaeology assets or impacts within AEZs cannot be avoided and there may be benefit to further clarifying their significance or extents.

- 1.4.5.2 Such surveys would be designed and undertaken or supervised by suitably qualified archaeologists.

## 1.4.6 Watching briefs

- 1.4.6.1 A watching brief is a formal programme of archaeological monitoring that involves attendance by a suitably qualified and experienced archaeologist during site activities (The Crown Estate, 2021). Based on the current understanding of the baseline environment and construction techniques, the need for a watching brief is not anticipated at this stage. However, should future work lead to the identification of further archaeological assets or areas of archaeological potential, for example through post-consent geophysical surveys or through the PAD, or should the construction methods or locations be altered, MD-LOT may require that a marine watching brief may be undertaken .

- 1.4.6.2 If a marine watching brief is required it would be subject to a specific method statement, and would be conducted by a suitably qualified and experienced marine archaeologist, in line with relevant guidance (CifA, 2014a).

## 1.5 Avoidance

### 1.5.1 Archaeological Exclusion Zones

- 1.5.1.1 Best practice favours the preservation *in-situ* of archaeological assets (The Crown Estate, 2021), therefore the preferred mitigation for archaeological assets is avoidance. For Morven North and Morven South, AEZs have been proposed for all high and medium potential anomalies (Section 0) and will be agreed with MD-LOT through the WSI. Activities that could impact the asset and/or the seabed within the extents of the AEZs are prohibited.
- 1.5.1.2 All AEZs will be marked on relevant consent plans. The final location of the seabed infrastructure of Morven North and Morven South will take into account these AEZs. If impacts cannot be avoided, measures to reduce, remedy or offset disturbance may be agreed in advance with MD-LOT (Section 1.6).
- 1.5.1.3 AEZs may be enlarged, reduced, moved or removed with the agreement of MD-LOT as the development progresses, subject to layout designs and additional subsequent surveys that may be required. Further AEZs may be defined if additional high potential anomalies or features of archaeological interest are identified.
- 1.5.1.4 In view of their potential archaeological significance, AEZs (either in the form of individual AEZs or clusters) have been recommended as a radius from the centre point of the asset or as a distance from the extents. Particularly in the case of shipwrecks identified by geophysical survey, which tend to be longer in length than width, the use of a radius about the centre point provides unequal protection around the extents. This impacts the protection afforded.
- 1.5.1.5 The AEZs identified have been reviewed against desk-based and site-specific data, and as a result of this review AEZs have been identified of varying sizes according to the size and spread of the individual archaeological asset.
- 1.5.1.6 The proposed AEZs are listed in Table 1.3 and their locations are shown in Figure 1.2. The AEZs in Figure 1.2 are not to scale. In total 17 AEZs relating to high and medium potential anomalies have been recommended for Morven North and Morven South.

**Table 1.3: Proposed Archaeological Exclusion Zones**

Anomaly ID	Description	Potential	WGS84		AEZ (m) (from anomaly extents or radius from a point)
			Latitude	Longitude	
MOR23_014	Likely geological	Medium	000° 44.1743' W	56° 29.6496' N	50 (extents)
MOR23_015	Wreck	High	000° 56.6256' W	56° 38.1515' N	75 (extents)
MOR23_021	Likely geological	Medium	001° 07.2653' W	56° 46.0613' N	25 (radius)
MOR23_023	Potential wreck	High	001° 10.5161' W	56° 49.1227' N	50 (extents)
MOR23_044	Mound	Medium	001° 01.2390' W	56° 44.4948' N	25 (radius)
MOR23_052	Wreck	High	000° 58.5407' W	56° 44.2635' N	50 (extents)
MOR23_054	Wreck	High	001° 08.0072' W	56° 51.3762' N	100 (extents)
MOR23_058	Potential debris	Medium	001° 05.3045' W	56° 50.1888' N	25 (extents)
MOR23_067	Potential debris	Medium	000° 33.2460' W	56° 29.6274' N	25 (extents)
MOR23_071	Wreck	High	000° 58.8359' W	56° 47.8184' N	100 (extents)
MOR23_077	Potential debris	Medium	000° 31.7791' W	56° 30.7356' N	50 (extents)
MOR23_083	Potential debris	Medium	001° 02.2725' W	56° 52.7365' N	25 (extents)
MOR23_085	Potential debris	Medium	000° 59.1210' W	56° 50.6537' N	50 (radius)
MOR23_093	Debris	Medium	000° 58.9913' W	56° 48.2650' N	25 (radius)
MOR23_101	Debris	Medium	000° 57.8923' W	56° 44.5911' N	50 (radius)
MOR23_104	Likely geological	Medium	001° 02.6429' W	56° 41.1684' N	25 (extents)
MOR23_135	Potential debris	Medium	000° 53.6851' W	56° 34.2693' N	25 (extents)

1.5.1.7 There are five high potential anomalies that have been assigned proposed AEZs, four of these are wreck sites and one is a potential wreck site. More detail on the high potential anomalies can be found in Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report (Figure 1.2).

1.5.1.8 There are 12 medium potential anomalies that have been assigned proposed AEZs, six of these are potential debris, two are debris, three are likely geological and one is a mound. More detail on the medium potential anomalies can be found in Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report (Figure 1.2).

1.5.1.9 MOR23\_135 is located inside the Morven North Marine Archaeology Study Area but also within the Morven South Boundary.

1.5.1.10 The list of AEZs is “live” and will be held in the Geographical Information Systems (GIS) project file maintained by the RA as well as Design Plans produced by the Applicant, and any shapefiles and constraints maps provided to all contractors.

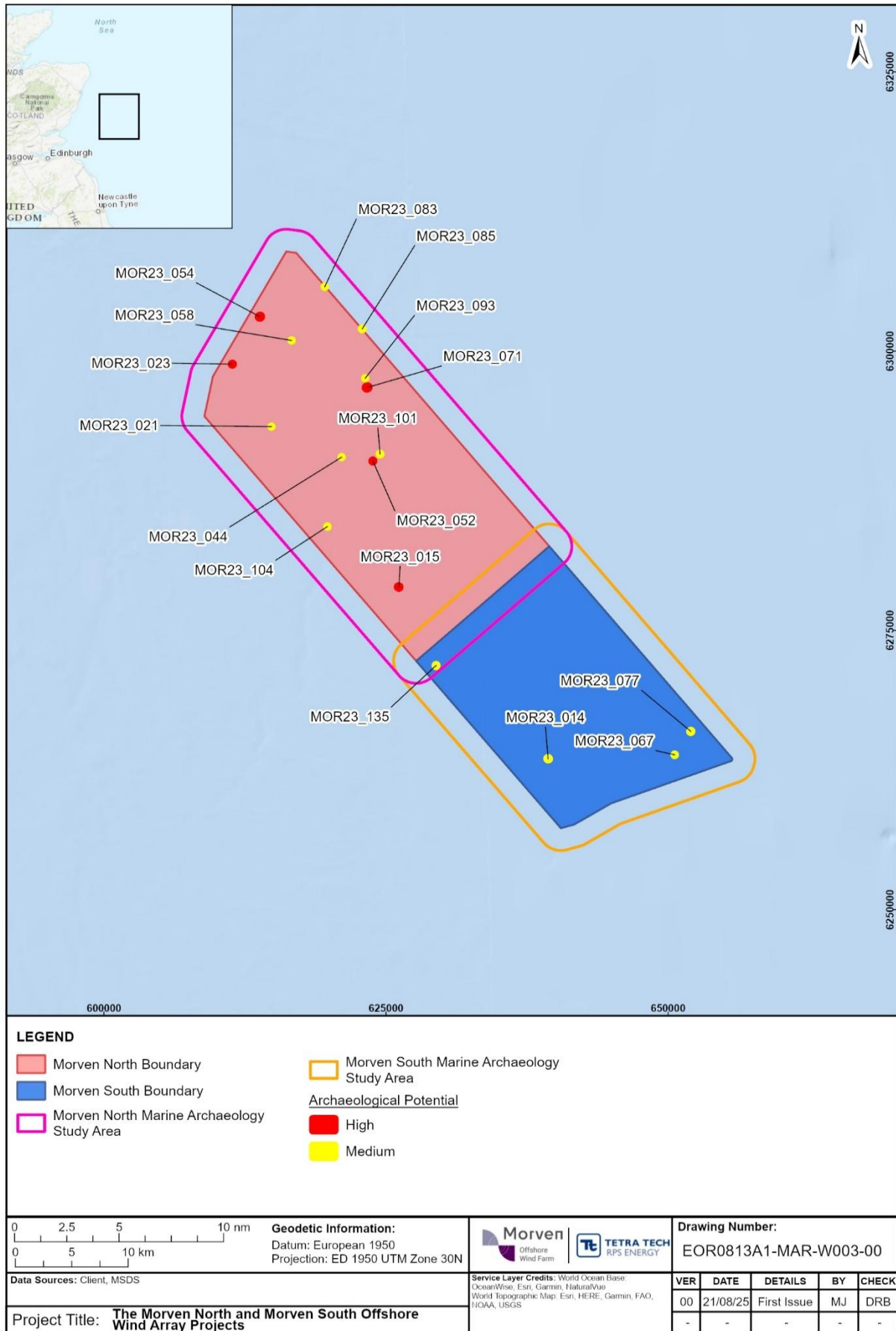


Figure 1.2: Proposed Archaeological Exclusion Zones

## 1.5.2 Temporary Exclusion Zones

- 1.5.2.1 If new discoveries of potential archaeological significance come to light at any point during the course of the construction, O&M or decommissioning phases, they may be subject to the implementation of a Temporary Exclusion Zone (TEZ). A TEZ will be initiated quickly by the Site Champion, Nominated Contact or by agreement of the RA and the Applicant to prevent impacts to the seabed within their extents. The TEZ will then be confirmed with MD-LOT. Depending on the view of MD-LOT and considering opportunities for potential impacts to be addressed through mitigation, the TEZ could then be removed, altered or converted into an AEZ.
- 1.5.2.2 TEZs may also be recommended for records of assets whose position cannot be determined with enough accuracy for refined exclusion zones, or where the extents are not fully known. However, there are no such records within the Morven North or Morven South.

## 1.5.3 Low archaeological potential anomalies and micro-siting

- 1.5.3.1 There are 137 low potential anomalies, these are interpreted as having no archaeological significance from the analysis of the geophysical survey data. These anomalies are listed in full in Volume 3, Annex 14.1: Marine Archaeology Shared Technical Report. Additional low potential anomalies may be identified in further pre-construction geophysical surveys. Low potential anomalies are not provided AEZs or TEZs but avoidance of these features by micro-siting is recommended.
- 1.5.3.2 Where micro-siting is not possible or practicable due to engineering or other constraints, additional survey or ground truthing should be completed in order to confirm the analysis that the geophysical anomaly is of no archaeological significance. This can often be achieved through pre-existing surveys such as UXO identification ROV surveys.
- 1.5.3.3 Should material of potential archaeological significance be identified during this process then they will be reported through the agreed PAD (0).

## 1.6 Discoveries and unavoidable direct impacts

### 1.6.1 Protocol for Archaeological Discoveries

- 1.6.1.1 A PAD will be implemented during all subtidal construction, O&M and decommissioning activities. It will address the reporting of unexpected finds of archaeological material, whether left in situ or recovered from the sea during these activities. The PAD will follow the format laid down in relevant guidance (The Crown Estate, 2014). More detailed information relating to the PAD is set out in 0 so only a short summary is included here.
- 1.6.1.2 The responsibility for ensuring the implementation of the PAD rests with the Applicant who will ensure that its agents and contractors are contractually bound to implement the PAD. The RA will provide advice to the Applicant and its agents and contractors and liaise with MD-LOT as necessary.
- 1.6.1.3 Once agreed by the Applicant and MD-LOT, the PAD will be distributed in a form suitable for use onboard vessels. The Applicant will ensure that the relevant staff on all vessels are informed of and have access to the PAD.
- 1.6.1.4 A Preliminary Record Form will be made available (Appendix B) to all vessel crews for completion on discovery of archaeological material.
- 1.6.1.5 All finds of potential archaeological material will be reported by site and vessel staff to the Site Champion on their vessel (usually a senior person or client representative on the vessel), who then reports to the Nominated Contact (a representative of the Applicant). The Nominated Contact will inform the RA and MD-LOT as appropriate.

- 1.6.1.6 Full contact details for all relevant parties will be included in the site documents.
- 1.6.1.7 The response to reported finds will be implemented through the measures set out in the PAD (0), this could include further surveys or establishment of TEZs or new AEZs if appropriate.
- 1.6.1.8 The PAD will be facilitated by means of appropriate training to ensure that all relevant staff and contractors are aware of their responsibilities. Copies of the PAD document will be made available for use on board the construction and other vessels.
- 1.6.1.9 At the end of the construction phase, the RA will prepare a report on the results of the PAD. This could be as a section of any other final archaeological report.

## 1.6.2 Approach to finds

- 1.6.2.1 Any finds and environmental samples will be processed according to professional standards for finds analysis, environmental sampling and archive preparation and in accordance with relevant guidance (ClfA, 2014b; 2014d).
- 1.6.2.2 The Applicant, with the aid of the RA, may have to report the finds to other organisations:
- Where the discovery is of archaeological significance this will be reported to MD-LOT.
  - Where the discovery constitutes “wreck” under the Merchant Shipping Act 1995 and has been recovered, this will be reported to the RoW within 28 days.
  - Where the discovery constitutes “treasure” this will be reported to the Treasure Trove Unit.
  - Where the discovery constitutes aircraft material, this will be reported to the MOD as soon as is reasonably practical.
  - Where the discovery constitutes human remains, this will be reported to the Procurator Fiscal, police and MD-LOT as soon as is reasonably practical.
  - Where the discovery constitutes UXO, they will be reported to the UXO Consultant. Company Health and Safety policies and UXO procedures should always take priority over archaeological reporting of ordnance.

### ***Discovery of artefacts***

- 1.6.2.3 Any discoveries recovered or exposed during activities by Morven North or Morven South will, at the point of discovery, be the responsibility of the Applicant. In line with the PAD, the Applicant (as Nominated Contact) will contact the RA for advice.
- 1.6.2.4 Where finds are discovered onboard a works vessel, approximate positions will be assigned for where the artefacts were recovered. A full photographic record will be maintained.
- 1.6.2.5 In the event of the discovery of unexpected, unusual or extremely fragile and delicate objects and deposits, the Applicant will notify the RA as soon as is reasonably practical. Additional work required to recover, record, analyse, conserve and archive such objects and deposits will be agreed with MD-LOT.
- 1.6.2.6 Objects that require immediate conservation treatment to prevent deterioration will be treated according to guidelines laid down in First Aid for Underwater Finds (Robinson, 1998). A full record will be made of any treatment given.
- 1.6.2.7 In consultation with the Applicant and MD-LOT, the RA will advise on the implementation of passive conservation for smaller objects pending more detailed conservation strategies. The Applicant will make provision for a professional conservator to undertake a conservation assessment of assemblages if appropriate, normally through the RA, and may need to plan for the long-term conservation and storage of objects or assemblages, particularly wreck material reported to the RoW.
- 1.6.2.8 Specialist work approved by MD-LOT on metal work, bone (including worked bone, human remains and other organic remains), ceramic material, glass and lithic material will be carried out

by a suitable archaeological contractor, monitored by the RA. All retained finds will then be processed in accordance with relevant guidance (ClfA, 2014b).

- 1.6.2.9 Subject to the agreement reached with MD-LOT or a suitable museum regarding selection, retention and disposal of material, the Applicant will retain all recovered objects unless they are undoubtedly of no archaeological significance and not defined as “wreck” under the Merchant Shipping Act 1995. The presence of modern objects will, however, be noted.

### ***Human remains***

- 1.6.2.10 If human remains are identified, they should be treated with due care and respect. In any event, the RA will inform the local police, the relevant Procurator Fiscal and MD-LOT. A TEZ will be implemented at the location, and all works at the location will cease.
- 1.6.2.11 If required, excavation, recording, analysis and storage of any human remains will be undertaken in line with relevant guidance (Mckinley, 1993; Historic Environment Scotland, 2016). An appropriate human skeletal biologist will, if required, be available to advise on and assist with the recovery and storage of human remains.

### ***Discovery of aviation material***

- 1.6.2.12 The majority of aircraft wrecks are military and so fall under the legal protection of the Protection of Military Remains Act 1986.
- 1.6.2.13 Any finds suspected of being military aircraft will be reported to the RA as soon as is reasonably practical. In particular, aluminium objects may indicate aircraft wreckage from World War II, especially if two or more pieces of aluminium are fixed together by rivets. All finds should be reported. The Applicant will also inform the JCCC with the aid of the RA. In the case of a military aircraft being investigated under licence, any human remains will be reported as soon as is reasonably practical in accordance with relevant guidance to the MOD (MOD, 2014).
- 1.6.2.14 Civilian aviation wreck sites are not covered by the Protection of Military Remains Act 1986. Any recovery of civilian aviation material will be reported to the Air Accidents Investigation Branch (AAIB) under the Department of Transport.

### ***Discovery of wreck***

- 1.6.2.15 “Wreck” includes all craft, parts of these, their cargo or equipment. Section 236 of the Merchant Shipping Act 1995 stipulates that all wreck recovered from within the UK’s waters and any wreck from outside the UK’s waters which is brought into UK waters must be declared to the RoW.
- 1.6.2.16 Appropriate finds will be reported to the RoW within 28 days of the recovery by the Applicant. This can be done through the RoW website. The finds must be retained until the RoW determines ownership or requests that they be transferred to the RoW.

### ***Environmental evidence***

- 1.6.2.17 No environmental sampling is currently foreseen as necessary at this stage. However if any programme of archaeological work required environmental sampling, the environmental sampling strategies and methods, including methods for processing, assessing and/or analysing samples, would be set out in the method statement for the archaeological work.
- 1.6.2.18 Approaches and methods will be consistent with Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (Campbell, 2011).

### 1.6.3 Unavoidable direct impacts

- 1.6.3.1 The mitigation strategy described in this WSI (Version 1) is predicated on the identification and avoidance of archaeological assets. It is recognised that this may not always be possible, for example should an archaeological asset be identified during construction activities.
- 1.6.3.2 Once the archaeological significance of the asset is confirmed, the first option would still be avoidance through an AEZ, TEZ or micro-siting. If this is not possible or practicable and the asset with archaeological significance will still be potentially impacted, further mitigation will be needed. This could include a range of measures, from relocating isolated objects, to full excavation of high significance sites such as wrecks and aircraft. Such measures will be agreed with MD-LOT and set out in detailed method statements.
- 1.6.3.3 If the asset is Wreck or a military aircraft, agreement of the methodology will also be sought from the RoW and the MOD respectively.
- 1.6.3.4 It will be ensured that activities are in compliance with marine licensing requirements.

## 1.7 Documentation

### 1.7.1 Method statements

- 1.7.1.1 Further archaeological work will be undertaken in accordance with the framework set out in this WSI and PAD (Version 1) and in line with relevant guidance.
- 1.7.1.2 Detailed archaeological method statements will also be produced, as appropriate and required, for further discrete packages of archaeological works, such as, *inter alia*, archaeological assessment of marine geophysical data, archaeological assessment of ROV data, and watching briefs.
- 1.7.1.3 Archaeological method statements will provide details about:
- specific objectives of archaeological works;
  - extent of investigation;
  - investigation methodology, to cover:
    - intrusive methods;
    - non-intrusive methods;
    - recording system;
    - finds, including the policy for selection, retention and disposal and provision for immediate conservation and storage;
  - environmental sampling strategy;
  - form of commission and contractual relationship with the Applicant;
  - relation between licence condition(s), WSI and the method statement;
  - context in terms of relevant works;
  - summary results of previous archaeological investigations in the vicinity;
  - archaeological potential or any relevant asset or anomaly;
  - anticipated post-investigation actions, including processing, assessment and analysis of finds and samples;
  - reporting, including Intellectual Property Rights in the report and associated data, confidentiality and timescale for deposition of the report in a publicly accessible archive;
  - timetable, to include investigation and post-investigation actions;
  - monitoring arrangements, including monitoring by AC(s);
  - health, safety and welfare (The Crown Estate, 2021).
- 1.7.1.4 Archaeological method statements will be prepared by the RA and authorised by the Applicant. The Applicant will submit the archaeological method statements to MD-LOT for approval.

1.7.1.5 Provision for monitoring of the works by the AC may be through site visits or meetings with the Applicant, contractor(s), and/or the RA.

## 1.7.2 Reports

1.7.2.1 Following each discrete package of archaeological works, an archaeological report will be produced. Each archaeological report will be consistent with the WSI and The Crown Estate guidance on reporting (The Crown Estate, 2021), and will demonstrate sufficient planning, recording, and data management, with a commitment to archiving and the public dissemination of results. Each report will satisfy the requirements of the method statements for that particular work package and will present the project information in sufficient detail to allow interpretation without recourse to the project archive.

1.7.2.2 The method statements may also set out the need for interim reports, in a form agreed with MD-LOT, and these will be submitted in sufficient time for MD-LOT to provide advice before subsequent stages of work.

1.7.2.3 All archaeological reports will be prepared in accordance with the guidance given in the relevant CifA's Standards and Guidance and conform to Monument Inventory Data Standard (MIDAS) (the UK's historic environment data standard). Reports will typically include:

- a Non-Technical Summary;
- the aims and methods of the work;
- the results of the work including finds;
- a statement of the potential of the results;
- proposals for further analysis and publication;
- illustrations and appendices to support the report.

1.7.2.4 The RA will forward a digital copy of each report to the Applicant for approval. Once approved by the Applicant, the report will also be forwarded to MD-LOT.

1.7.2.5 Decisions regarding any further work required, or the level of post-excavation work required, will be taken following submission of investigative reports and in consultation with MD-LOT.

1.7.2.6 An overarching final report on the marine archaeology recorded within the vicinity of Morven North and Morven South will be produced by the RA after the completion of all archaeological works. This may summarise and index the preceding archaeological reports.

1.7.2.7 The final report will establish final arrangements for publication. All archaeological reports (inclusive of geophysical investigations) produced during the development and construction process will be uploaded through the Online Access to the Index of Archaeological Investigations (OASIS) system. Geophysical and geotechnical data, as well as any commercially sensitive information, will not be archived through this process.

## 1.7.3 Publication

1.7.3.1 The Applicant and RA will publish the results of work packages and/or results of the final report within one year of completion of the work, if appropriate. Publication will be in an appropriate local or national journal. Other forms of publication (e.g. popular publication/internet) may be employed where appropriate.

1.7.3.2 Publication media and all publication matters will be discussed and agreed in advance with MD-LOT.

1.7.3.3 Digital copies of all archaeological reports will also be uploaded through the OASIS system.

## **1.7.4 Archives**

- 1.7.4.1 MD-LOT will be notified of any archaeological investigations in advance and any specific requirements related to the preparation and deposition of the archives will be accommodated as appropriate. Archives will be developed in line with relevant guidance (CIfA, 2014b; 2014c; Historic Environment Scotland, 2025).
- 1.7.4.2 A relevant receiving institution will be identified, in Scotland this is usually HES (Historic Environment Scotland, 2025), and notified by the RA of any archaeological investigation in advance of fieldwork. An accession number will be sought for the project archive by the RA and included in method statements relating to fieldwork or recovery of artefacts. A policy for the selection, retention and disposal of excavated material will be agreed, and requirements in respect of the format, presentation and packaging of archive records and materials will be confirmed.
- 1.7.4.3 The timetable for depositing archives with the receiving institution after completion of the post-fieldwork programme will be set out in the relevant method statements.

## **1.8 Monitoring and reviewing the Written Scheme of Investigation and Protocol for Archaeological Discoveries**

- 1.8.1.1 At each stage of Morven North and Morven South including construction, O&M and decommissioning and sub-stages therein, the RA will advise the Applicant as to the potential requirements for the specific archaeological investigations as outlined in the WSI, the need for specific method statements, and the need to update the WSI and PAD.
- 1.8.1.2 Provision will be made for the WSI and PAD to be revised as appropriate should elements of Morven North and Morven South change or particular archaeological issues come to light. Any revisions will be prepared by the RA and submitted to the Applicant who will ensure they are submitted to MD-LOT.
- 1.8.1.3 The performance of the WSI and PAD will be monitored through the provision of a series of archaeological reports prepared to inform on the results of various activities undertaken under its framework. Monitoring visits (if appropriate) by the AC will be agreed in advance of specific work packages.

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## Appendix A Protocol for Archaeological Discoveries

### A.1 Background

This document is a protocol that will satisfy conditions relating to the reporting of archaeological discoveries that might be made in association with works undertaken for Morven North and Morven South. It is adapted from The Crown Estate Protocol for Archaeological Discoveries: Offshore Renewables Projects (The Crown Estate, 2014).

The Protocol of Archaeological Discoveries (PAD) is a system of monitoring for unexpected or incidental finds relating to the historic environment that may be encountered within the marine and intertidal zones. This PAD can be used at all stages of the development process where archaeological information may be obtained, including all pre-development surveys such as benthic sampling, obstruction surveys and other such operations.

This PAD is intended to satisfy any conditions that relate to reporting protocols included on consents administered by marine licensing authorities including MD-LOT. Where implementation of this PAD is a condition of consent, failure to follow the PAD may give rise to a breach of condition.

COWRIE's Historic Environment Guidance for the Offshore Renewable Energy Sector (Wessex Archaeology, 2007) document states: "The aim of protocols for unexpected discoveries is to reduce any adverse effects of the development upon the marine historic environment by enabling people working on the project to report their discoveries or recovered material rapidly in a manner that is convenient and effective. The protocol will set out the respective responsibilities of the developer, main contractors, and archaeological contractors/consultants, to include contact details and formal lines of communication between the parties and with archaeological curators. The protocol therefore provides a mechanism to aid compliance with the Merchant Shipping Act 1995 in respect to recovery of "wreck", as defined by the Act and reporting of military vessel and aircraft wrecks to the Ministry of Defence" (Wessex Archaeology, 2007).

This PAD applies to things that are or may have been made, used or affected by people. This will include, for example, fossilised remains from periods of human inhabitation, but not fossils that are exclusively pre-human in origin. It will not include finds of geological, ecological, or other non-archaeological origin, unless a link to human activity can be assumed.

This PAD takes into account, and is consistent with, existing statutory and non-statutory regimes for reporting discoveries, ownership of finds and other legal regimes, on land, within territorial waters and outside territorial waters.

For some classes of find there are specific legal requirements (e.g. treasure, wreck, human remains; Section 1.6.2). These legal requirements will be met by following this PAD. In such instances, failure to follow the PAD may also give rise to a criminal offence.

### A.2 Outline

Archaeological finds made in the course of offshore activities can shed light on past human use of the landscape, sea and seabed. The information that such discoveries bring to light can help archaeologists better understand society and human endeavour in the past and better protect significant aspects of our history on behalf of future generations.

The PAD is applicable to activities associated with Morven North and Morven South where an archaeologist is not present on site and therefore not immediately available. In cases where the Applicant has made provision for an archaeologist to be on site, as part of a site investigation, watching brief or specific archaeological works, then the archaeological method statement relating to that provision will take precedence. Where no specific archaeological provision has been made, then this PAD will apply.

This PAD addresses finds of archaeological interest made on the seabed or onboard vessels. They may be identified as a result of geophysical survey, ROV visual identification or through coming into contact with anchors, grapnels, jack-up legs or other seabed equipment. These finds or anomalies may indicate that an object or structure of archaeological interest has been encountered on the seabed.

The definition of an archaeological “find” in this context is of an object or site with archaeological potential or significance. It does not refer just to items brought to the surface. An archaeological “site” is a group of features or objects that make up a relatively discrete collection of associated archaeological objects. This could be a shipwreck, structure, or other archaeological assemblage.

An “anomaly” is distinct from a find or site and is a signature that could be visual or digital (e.g. geophysical) that indicates a possible find or site. Further investigation may reveal that it is not of human origin or is too modern to be of archaeological interest. However, until such investigation takes place it must be considered as a source of possible archaeological interest.

The PAD anticipates discoveries being made by project staff, who report to a Site Champion on their vessel or site (usually the senior person on site), who then reports to a person (the Nominated Contact) who has been nominated by the Applicant to co-ordinate implementation of the PAD. The Nominated Contact will in turn inform the Applicant’s Project Manager(s) (if this is not the Nominated Contact) who in turn will contact the RA.

The response to reported finds will be implemented through the measures set out in the PAD and may include further survey or the establishment of TEZs, which may be converted into new AEZs, if warranted. Any action to implement new, or to amend agreed AEZs or TEZs will only be done in agreement with the Regulator responsible for consenting Morven North and Morven South.

## **A.3 Roles and responsibilities**

The Site Champion is the person formally appointed by the Applicant to be directly responsible for implementation of the PAD and producing reports arising from a particular activity location. The Site Champion could be a vessel master, a construction foreman, a client representative or any other person in a position to control the immediate works.

The Applicant’s Nominated Contact is the formal point of contact for all matters relating to the PAD between the Applicant, its subcontractors, the Site Champions, RA, and the Regulator. The Nominated Contact could be the Environmental Manager, Consents Manager, Project Manager or any other coordinator that the Applicant feels is appropriate and effective in acting in this role. It is critical that all parties hold the Nominated Contact’s full contact details and that any changes to the Nominated Contact’s details are circulated as soon as possible.

## **A.4 Actions by project staff**

### **A.4.1 In all cases**

If a find of archaeological interest is made, project staff will inform the Site Champion as soon as is reasonably practical (via their supervisor if appropriate).

If the discovery is ordnance, then project staff will abide by their operational procedures which are to take precedence; and then report via the PAD once safe to do so.

Where items of archaeological interest are recovered, project staff (under direction of the Site Champion) will:

- handle all material with care;
- ensure any rust, sediment, concretion or marine growth should not be removed and “groups” of items or sediments should not be separated;
- if possible, photograph the item in the condition in which it was recovered;
- record the position at which the artefact/sediments were recovered;

- provide a unique reference number for each artefact, which is to be included on all recording and storage mediums.

If the find is from a waterlogged or in an underwater environment, then project staff (under direction of the Site Champion) will arrange for the find to be immersed in seawater in a suitable clean container, which should be covered.

## **A.5 Discoveries onboard**

If a find of archaeological interest is made onboard a construction vessel (for instance, caught in a grapnel/anchor or trapped in a plough), project staff will inform the Officer on Watch, (the officer responsible for operating the vessel and ensuring the safety of the vessel), as soon as is reasonably practical. The project staff or officer will also inform the Site Champion.

Where it is possible to identify the seabed position from which the find originated, the Officer on Watch will temporarily cease construction activities in the vicinity of the seabed location, or move to an alternate location, until advice from the RA has been obtained.

## **A.6 Anomalies on the seabed**

If an anomaly is identified in advance of impact, such as on the forward-looking sonar of a cable plough, the route should – where possible – be deviated around the obstruction, in line with normal ploughing practice. The position of the anomaly will be reported to the Officer on Watch and then to the Site Champion.

If an anomaly is identified after an impact has occurred, for example, as indicated by a change in the towing cable tensiometer, avoidance by deviation will be precluded. However, the change in tension should be brought to the attention of the Officer on Watch and the Site Champion as soon as is reasonably practical so that the anomaly can be reported, advice can be sought and any requirements for further investigation determined.

The Officer on Watch will arrange for the grapnel or plough to be recovered to the surface and examined as soon as possible, once recovered to surface, to see if any archaeological material is trapped within it and will inform the Site Champion accordingly.

If an anomaly comes to light in the course of geophysical survey, ROV survey or drop-down video survey the Officer on Watch will ensure that the position of the anomaly is noted on navigational software and that the Site Champion is informed.

### **A.6.1 Discoveries subsequent to work on site**

There are a number of circumstances in which the presence of material of archaeological interest may be identified after work on site has occurred, for instance project staff involved in processing samples in a laboratory may make archaeological discoveries in their samples.

Staff examining sample material (e.g. core material; benthic samples) should consider the potential for archaeological and/or paleoenvironmental material being recovered within their samples. Where such discoveries are made project staff should inform the Site Champion and pass on details of the sample number and its position.

If an anomaly comes to light in the course of processing or interpreting geophysical survey data, video or other photographic data, project staff should inform the Site Champion and pass on details of the data files and navigational information relating to the positions where the data were obtained.

## A.6.2 Actions by Site Champion

Where it is possible to identify the position from which the discovery originated, the Site Champion will arrange for a TEZ in which construction activities will cease temporarily (in the vicinity of the location), or move to an alternate location, until the advice of the RA has been obtained.

The Site Champion will note the occurrence as soon as possible in the site daybook or vessel log together with the time and exact position. The entry should include a close approximation of the original position of the find/anomaly. Additionally, the area should be marked on site drawings or surveys.

The Site Champion will compile a Preliminary Record of the occurrence (Appendix B) and, where possible, accompany this with any supporting information such as photographs, drawings or other records that have been made. The Site Champion will inform the Applicant's Nominated Contact of the occurrence as soon as possible and pass on all available information.

The Site Champion will arrange for any finds (of archaeological material) to be carefully contained and protected:

- if waterlogged: immersed, bagged and placed in a protective container, or placed in seawater in a suitable clean container, which should be covered and stored in a cool, dark place;
- if dry: placed in a suitable container and stored in a cool, dark place;
- any dirt, rust, concretion or marine growth should not be removed.

## A.7 Actions by the Nominated Contact

The Nominated Contact will confirm with the Site Champion that all the details set out in the Preliminary Record are comprehensive and correct.

Contact will be made with the RA at the earliest opportunity, providing all available information relating to the circumstances of the occurrence, including a copy of the Preliminary Record and copies of any other records that have been made. The RA will provide advice on the appropriate immediate actions in addition to the recording, handling and storage of any items recovered.

The Nominated Contact should inform other teams engaged in potentially damaging activities in the same area, to ensure that they are aware of the position of the discovery so that further possible damage to the historic environment can be avoided.

Should it be required, the RA or their archaeological contractor will travel to the site to inspect any finds or data made available.

## A.8 Actions by the Retained Archaeologist

The RA will review the information about the discovery in conjunction with the available geophysical and/or desk-based information. Additional communication may take the form of email correspondence and/or telephone conversations (where internet access is restricted). The RA will send an initial response to the Nominated Contact to acknowledge the report.

### A.8.1 Assessment of archaeological potential

The assessment of archaeological potential will be based on the following criteria:

- low potential discoveries: reports of single, apparently isolated, finds that are not datable or are of Modern (post-1800) or later date, or small pieces of peat (<10 cm diameter) where there are clear signs it has been mobile (rolled);
- high potential discoveries: reports of single finds that are of post-Medieval or earlier date; reports of single finds that relate to military aircraft; reports of multiple finds from the same

area; reports indicating the presence of a wreck or other structural remains; reports of peat or other fine-grained organic material where there is no evidence of mobility (e.g. angular blocks of sediment with no/limited rounding of the edges).

In the case of a discovery of high potential, construction will not recommence in the TEZ without the approval of MD-LOT. The RA will confirm the extent of the area of the TEZ. The RA (through the Applicant if appropriate) will notify MD-LOT that a discovery of high potential has been reported and will provide details of the further actions that have been advised.

In the case of discoveries of low potential, the RA will advise the Nominated Contact that the TEZ may be lifted and that construction activities in the vicinity of the discovery may recommence.

## **A.8.2 Summary Record**

The RA will send a Summary Record of the report to the Nominated Contact and to other relevant parties. The Summary Record will include:

- advice on the identification of finds and the character of their seabed locations;
- an assessment of the archaeological potential of the find, including the rationale for the conclusion reached;
- advice on actions to be taken in respect of the discovery, including any recovered finds;
- a list of the parties to which the Summary Record and associated archaeological data are being sent.

## **A.8.3 Subsequent actions**

The RA will advise the Nominated Contact of the implications of the discovery and of further actions that might be required. Further actions may include call-out investigations, the conversion of a TEZ to an AEZ, and/or the institution of a watching brief. The rationale for conclusions reached will be provided to the Nominated Contact.

## **A.8.4 Further requirements**

If the discovery is something to which specific legal provisions apply (e.g. treasure, human remains, wreck, etc), it will remain the responsibility of the Applicant to undertake such statutory reporting as is required.

## **A.8.5 Finds**

The handling, retention or disposal of finds will be subject to applicable law and to arrangements between the Applicant and the institution receiving the archaeological archive arising from Morven North and Morven South.

## **A.8.6 Revised Summary Record**

The Summary Record will be revised to take account of further information or actions that have taken place or are planned. The RA will pass on a copy of the revised Summary Record to:

- the Nominated Contact for circulation to the Site Champion and relevant project staff;
- MD-LOT;
- the relevant authority, where specific legal provisions apply (e.g. RoW, Procurator Fiscal, MOD, etc);
- the Crown Estate;
- deposition of the revised Summary Record with the OASIS.

## **A.9 Legal terms and responsibilities**

### **A.9.1 Marine (Scotland) Act 2010**

This Act enables Scottish Ministers to designate HMPAs. This is restricted to Scottish Territorial Seas.

### **A.9.2 Merchant Shipping Act 1995**

This Act is not a form of designation, but will affect offshore renewable energy schemes if, during site investigations or construction, any material is recovered which falls within the definition of “wreck”. All wreck has an owner, and the Merchant Shipping Act sets out the procedure for returning recovered wreck to the owner or their successor. The RoW must be notified of all recovered wreck landed in the UK and will seek to identify the original owner so that it can be claimed. Ownership of unclaimed wreck from within territorial waters vests in the Crown or in a person to whom rights of wreck have been granted. Unclaimed wreck from beyond territorial waters is returned to the finder.

The RoW has a duty to ensure that finders who report wreck receive an appropriate salvage payment. In the case of material considered to be of historic or archaeological importance, a suitable museum will be asked to purchase the material at the current market valuation. The finder will receive the net proceeds of the sale as a salvage payment. If the right to, or the amount of, salvage cannot be agreed, either between the owner and finder or between competing salvors, the RoW will hold the wreck until the matter is settled, either through amicable agreement or by court judgement.

### **A.9.3 Protection of Military Remains Act 1986**

The primary purpose of the Protection of Military Remains Act is to protect the resting places of military personnel from unauthorised disturbance. It allows the MOD to protect vessels and aircraft that were in military service when they were lost or wrecked. The MOD can designate any such named vessel lost after 04 August 1914 as a “protected place” even if the position of the wreck is not known. In addition, the MOD can designate a ‘controlled site’ any such wreck whose position is known.

The remains of all aircraft that have been lost in military service are automatically classified as “protected places” by the Act.

Access is not prohibited at a “protected place”, but it is an offence to tamper with, damage, move or remove items from such a wreck without a licence. However, access, salvage and excavation are all prohibited on ‘controlled sites’, except where a licence for restricted activities has been obtained from the MOD.

### **A.9.4 Treasure**

The Scots common law right relating to found archaeological and historic items in Scotland (and dealt with through the system of Treasure Trove) does not extend to the marine environment except to the foreshore. Items constituting treasure should be reported to the Treasure Trove Unit.

### **A.9.5 Ancient Monuments and Archaeological Areas Act 1979**

Monuments that are of national importance within UK territorial waters can be protected by being added to the schedule of monuments protected under this Act. It is an offence to damage or carry out a range of specified activities on such a ‘scheduled monument’, unless a licence for these activities has been obtained from the relevant authority, in the form of ‘scheduled monument consent’.

Monument can mean, among other things, the site of any vehicle, vessel, aircraft, or other structure. It also refers many types of archaeological site in the traditional sense.

## **A.10 Guidelines for identifying finds of archaeological interest and handling artefacts**

### **A.10.1 Materials guidelines**

#### ***Rubber, plastic, etc.***

In most cases, rubber, plastic, Bakelite and similar modern materials are not of archaeological interest and can be disregarded. One exception is where such materials are found in the same area as aluminium objects and structures, which may indicate aircraft wreckage from World War II. Such material should be reported.

#### ***Iron and steel***

The potential range and date of iron and steel objects is so wide that it is difficult to provide general guidance. In broad terms, iron and steel objects which are covered by a thick amorphous concrete-like coating (“concretion”) are likely to be of archaeological interest and should be reported. Pieces of metal sheet and structure may indicate a wreck and should be reported. Specific operational measures are likely to apply in respect of ordnance (e.g. cannonballs, bullets, shells) which should take precedence over archaeological requirements. However, discoveries of ordnance may be of archaeological interest, and they should be reported.

#### ***Other metals***

Items made of thin, tinned, or painted metal sheet are unlikely to be of archaeological interest. Aluminium objects may indicate aircraft wreckage from World War II, especially if two or more pieces of aluminium are fixed together by rivets. Copper and copper alloy (bronze, brass) objects might indicate a wreck, or they may be very old. Precious metal objects and coins are of archaeological interest because they are relatively easy to date. All occurrences should be reported.

#### ***Bone***

Discoveries of animal bone, teeth and tusks are of archaeological interest because they may date to periods when the seabed formed dry land and should be reported. Such bones, teeth, tusks etc. may have signs of damage, breaking or cutting that can be directly attributed to human activity. Large quantities of animal bone may indicate a wreck (the remains of cargo or provisions) and should be reported. Human bone is of archaeological interest, and may, if buried and found within the territorial waters, be subject to the provisions of the Burial Act 1857. Any suspected human bone should be reported and treated with discretion and respect. Objects made from bone – such as combs, harpoon points or decorative items – can be very old and are of archaeological interest. All occurrences should be reported.

#### ***Wood***

Light coloured wood, or wood that floats easily, is probably modern and is unlikely to be of archaeological interest. “Roundwood” with bark – such as branches – is unlikely to be of archaeological interest, although it may provide palaeoenvironmental evidence. However, roundwood that has clearly been shaped or made into a point should be reported. Pieces of wood that have been shaped or jointed may be of archaeological interest, especially if fixed with wooden pegs, bolts, or nails – all occurrences should be reported. Objects made from dark, waterlogged wood – such as bowls, handles, shafts and so on – can be very old and are of archaeological interest. All occurrences should be reported.

## **Stone**

Small to medium size stones that are shaped, polished and/or pierced may be prehistoric axes. All occurrences should be reported. Objects such as axe heads or knife blades made from flint are of prehistoric date and should be reported. Large blocks of stone that have been pierced or shaped may have been used as anchors or weights for fishing nets. All occurrences should be reported. The recovery of numerous stones may indicate the ballast mound of a wreck, or a navigational cairn. All occurrences should be reported.

## **Pottery**

Any fragment of pottery is potentially of interest, especially if it is a large fragment. Items which look like modern crockery can be discarded, but if the item has an unusual shape, glaze, or fabric it should be reported.

## **Brick**

Bricks with modern proportions and v-shaped hollows (“frogs”) are of no archaeological interest. Unfrogged, “small”, “thin” or otherwise unusual bricks may date back to Medieval or even Roman times and should be reported.

## **Peat and clay**

Peat is black or brown fibrous organic material that was deposited when sea level was so low that the modern seabed formed marshy land, for example on the banks of a river or estuary. The peat is made up of plant remains and contains microscopic remains that can provide information about the environment at the time it was formed. Prehistoric structures (such as wooden trackways) and artefacts are often associated with wetland areas where peat may have formed. In some rare instances archaeological material has been found within peat samples (moorlog) recovered from the North Sea seabed. Fine-grained sediments such as silts and clays are often found at the same places as peat. Any discoveries of such material could be of archaeological interest, and their occurrence should be reported.

## **A.11 Artefact storage advice**

It should be noted that “time is of the essence” in terms of the recovery of waterlogged archaeological material. If waterlogged organic items dry out this can cause irreparable damage. Care in handling items is paramount.

In the event of artefact recovery, the finds should be stored in the following manner:

- If dry, finds should be placed in zip-lock bags and/or stored in a suitable protective container in a cool, dark area if possible;
- If waterlogged, any artefacts should be kept damp, or preferably totally submerged (in sea water), in zip-lock bags which are then stored in ridged plastic boxes to prevent damage. Items should be kept wet, covered, and stored in a cool, dark area if possible, and protected from any damage to potentially delicate waterlogged material;
- Any sediments of interest will be collected and double bagged into zip-lock bags;
- If particularly delicate or significant items are recovered the RA should be contacted for further advice.

The Applicant will supply suitable storage materials to its construction operations. The RA can advise on suitable materials for this purpose. All retained finds will then be processed in accordance with relevant guidance (ClfA, 2014b).

## Appendix B Archaeological Discoveries Example Preliminary Record Form

Preliminary Record Form: Discoveries on the seabed/on board/in the intertidal zone/ on land		
Finder information		
Company Name:		
Vessel/Team Name:		
Site/Sea area Name:		
Date:		
Time of compiling information:		
Name of compiler (Site Champion):		
Name of finder (if different to the above):		
Location information		
Time at which discovery was encountered:		
Vessel position at time when anomaly was encountered:	Latitude:	
	Longitude:	
	Datum (if different from WGS84)	
Notes on likely accuracy of original position stated above:	How accurate is the position?	
	Is the position the original position or has the material been moved by operations?	
	Details of circumstances and activity that lead to the discovery:	
Find information:		
Description of the find/anomaly:		
Apparent size/extent of the anomaly:		
Details of any find(s) recovered:		
Details of photographs, drawings or other records made of the find(s) (e.g. location figure):		
Details of treatment or storage of find(s):		

<b>Date and time Nominated Contact informed:</b>	
<b>General Notes:</b>	
<b>If discovered on the seabed:</b>	
<b>Derived from (e.g. Obstacle Avoidance Sonar, Cable Tensiometer?)</b>	
<b>Apparent size/extent of anomaly (length, width, height above seabed):</b>	
<b>Extent of deviation/route development:</b>	
<b>Signed:</b>	<b>Date:</b>