



Sporad na Mara Offshore Wind Farm

Offshore Project

Environmental Impact Assessment Report

Outline Offshore Written Scheme of Investigation, Volume 3

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1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1.1 This Outline Offshore Written Scheme of Investigation (OOWSI) has been produced along with the Environmental Impact Assessment Report (EIAR) for the proposed Spiorad na Mara Offshore Wind Farm Project (hereafter referred to as 'the Offshore Project') and aims to address the specific requirements of the Section 36 Consents granted by the Scottish Ministers to Spiorad na Mara Limited (referred to as "the Applicant") under section 36 (s.36) of the Electricity Act 1989.
- 1.1.1.2 The OOWSI outlines the approach and detail around archaeological mitigation and investigations, ensuring environmental compliance and minimising impacts on offshore archaeology and cultural heritage receptors including maritime, aviation, or prehistoric sites of known (identified through records and surveys) or unknown sites of archaeological potential and receptors identified in the EIAR chapter (**Chapter 15: Offshore Archaeology and Cultural Heritage, Volume 2a**).

1.1.2 PROJECT BACKGROUND

- 1.1.2.1 The Applicant is proposing to develop the Project. The Project is an offshore wind farm (OWF) that will consist of up to 60 fixed-bottom wind turbine generators (WTGs).
- 1.1.2.2 The Project will include both offshore and onshore infrastructure. This Management Plan supports the application for the offshore components of the Project as outlined in **Chapter 1: Introduction, Volume 1a** of the EIAR. The offshore components of the Project (the Offshore Project) includes all infrastructure and activities located seaward of Mean High Water Springs (MHWS) within the Array Area and Offshore Cable Area of Search (OCAS) (**Figure 1.2: Offshore Project Location, Volume 1b** of the EIAR). Further detailed information is provided in **Chapter 3: Project Description, Volume 1a** of the EIAR.
- 1.1.2.3 The Offshore Project is situated off the northwest coast of Isle of Lewis/*Eilean Leòdhais* and the Array Area is located approximately 5-13 km offshore and is approximately 161 km² in size. It will comprise WTGs, foundations, Offshore Cables, Offshore Substation Platform (OSP) (if required), and Landfall. The Array Area combined with the OCAS is defined as the Offshore Project Boundary. The water depths across the Array Area range from 37 m-67 m with the southwest corner of the Array Area reaching 72 m. The proposed WTGs and fixed foundations will be located within a Turbine Area of approximately 140 km², within the Array Area.
- 1.1.2.4 The EIAR accompanies applications for offshore consents, licences and permissions for the Offshore Project to Marine Directorate - Licensing Operations Team (MD-LOT) under Section 36 (s.36) of the Electricity Act 1989, the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009, for the offshore infrastructure seaward of MHWS.

1.1.2.5 The EIA regulations applicable to the Offshore Project are the Electricity Works (EIA) (Scotland) Regulations 2017 for offshore generating stations requiring s.36 consent.

1.2 PURPOSE OF THE OUTLINE OFFSHORE ARCHAEOLOGY WRITTEN SCHEME OF INVESTIGATION

1.2.1.1 The OOWSI will form the basis of the Final Offshore Archaeology Written Scheme of Investigation (WSI). The Final Offshore Archaeology WSI will be finalised and approved post-consent and approved as part of condition discharge prior to construction by Scottish Ministers in accordance with s.36 and associated Marine Licences.

1.2.1.2 This OOWSI details the proposed approach to archaeological mitigation and investigations to be undertaken for the Offshore Project. This OOWSI accompanies **Chapter 15, Volume 2a** and is appended by **Appendix A: Outline Protocol for Archaeological Discoveries, Volume 3** of the Environmental Impact Assessment Report (EIAR).

1.2.1.3 This OOWSI should be read in conjunction with the relevant parts of the following chapters and appendices:

- **Chapter 15, Volume 2a;**
- **Appendix 15.1: Marine Archaeology Desk-based Assessment, Volume 2c;**
- **Annex 15.1.2: Archaeological Assessment of Geophysical and Hydrographic Data, Volume 2c;**
- **Annex 15.1.3: Stage 1 Marine Geoarchaeological Assessment, Volume 2c;**
- **Appendix 15.4: Scoping Methodology and Setting Assessment, Volume 2c;**
- **Appendix A: Outline Protocol for Archaeological Discoveries, Volume 3.**

1.2.1.4 This OOWSI covers the following:

- Guidance and best practices (Section 1.3);
- Archaeological and historical background (Section 1.4);
- Archaeological potential and statement of significance (Section 3);
- Research priorities (Section 4);
- Roles, responsibilities and communication (Section 5);
- Committed mitigation measures (Section 6);
- Archaeology Strategy (Section 7);
- Health and Safety (Section 8).

1.2.1.5 The aim of this OOWSI is to set out the broad strategy and general scope and methodology for archaeological work to mitigate the impact to potential archaeological remains. The OOWSI includes a summary of the relevant published research priorities.

- 1.2.1.6 The OOWSI is informed by pre-application consultation with Historic Environment Scotland (HES) and the Local Planning Authority's archaeological advisor and the baseline review of known and potential archaeology within the Marine Archaeology Study Area (MASA), which is comprised of a 2 km buffer from the Offshore Project boundary extending up to the MHWS boundary (see **Appendix 15.1, Volume 2c**). Once further consultation has been carried out with the regulator's archaeological advisor to agree the strategy presented here, the OOWSI will be updated, and site-specific method statements will be produced either as an appendix to the OOWSI or stand-alone addendums. This document will be used as a supporting document for any detailed Method Statements (MS) produced.
- 1.2.1.7 The Final Offshore Archaeological WSI shall state the legislative requirements; current standards of practice and best practice measures that define the standard of construction practice adhered to by the Contractors. However, adhering to the Final Offshore Archaeological WSI does not absolve the Applicant, or its third-party Contractors or Subcontractors from complying with legislation and bylaws relevant to their construction activities.

1.3 LEGISLATION AND GUIDANCE

- 1.3.1.1 In demonstrating adherence to industry best practice, this OOWSI has been prepared in line with available archaeological guidance for offshore development, including:
- Protocol for Archaeological Discoveries: Offshore Renewables Projects (The Crown Estate, 2014);
 - Chartered Institute for Archaeologists (CIfA) Code of Conduct (CIfA, 2022);
 - CIfA Standards and Guidance (CIfA, 2020a, 2020b, 2020c, 2020d, 2020e);
 - Marine Geophysical Data Acquisition, Processing and Interpretation – guidance notes (Plets R. *et al.*, 2013);
 - Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector (Gribble and Leather, 2011);
 - Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021);
 - Historic Environment Guidance for the Offshore Renewable Energy Sector (Wessex Archaeology, 2007);
 - Code for Practice for Seabed Development (Joint Nautical Archaeology Policy Committee (JNAPC), 2006).
- 1.3.1.2 The fundamental objectives of a WSI for offshore development (i.e. of relevance to the Offshore Project) are set out in the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) as follows:

- Set out the roles and respective responsibilities of the Offshore Project Team; Contractors, and Retained Archaeologist and Archaeological Contractor(s) and formal lines of communication between the parties and with the Archaeological Curator(s);
- Outline the known and potential archaeological receptors that could be impacted by the Offshore Project;
- Outline the agreed mitigation and archaeological actions that are to take place in various circumstances;
- Set out the importance of research frameworks in setting objectives that are delivered through the realisation of the work;
- Provide summarised details on methodologies for these archaeological actions, which will be clarified in more detail in subsequent activity-specific Method Statements.

1.3.1.3 The Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) were prepared by Wessex Archaeology for The Crown Estate to set out agreed archaeological methodologies so that they do not have to form part of the drafting and agreement of each WSI prepared for the offshore renewables industry. As such, these methodologies will not be duplicated here. Rather, this OOWSI draws upon the agreed methodologies and, for each section, sets out how these are relevant to the delivery of the Offshore Project and explains any necessary adaptations and amendments for agreement with HES.

1.3.1.4 This OOWSI has been prepared based upon the results of the baseline desk-based assessment and site-specific surveys prepared for the Offshore Project, specifically the following Environmental Impact Assessment Report (EIAR) documents:

- Marine Archaeology Desk-based Assessment (**Appendix 15.1, Volume 2c**);
- Archaeological Assessment of Geophysical and Hydrographic Data (**Annex 15.1.2, Volume 2c**);
- Stage 1 Marine Geoarchaeological Assessment (**Annex 15.1.3, Volume 2c**).

1.3.1.5 Cross-referencing across the EIAR is included within this OOWSI where appropriate.

1.4 IMPLEMENTATION OF THE OUTLINE WRITTEN SCHEME OF INVESTIGATION

1.4.1.1 This OOWSI will be submitted for approval to the Scottish Ministers and other stakeholders in relation to monitoring compliance with the specific requirements of the relevant consent conditions.

1.4.1.2 During construction activities this OOWSI will be monitored by the Applicant's Construction Manager (or equivalent), Environmental Manager (or equivalent), and MD-LOT.

1.5 OTHER RELATED MANAGEMENT PLAN

1.5.1.1 The OOWSI and Final WSI will be developed with consideration of the content and requirements of other relevant Management Plans. These are set out in **Table 1-1** with details of the linkages.

Table 1-1 Other related Management Plans to the Written Scheme of Investigation

Management Plan	Licence/consent conditions	Linkage with the Written Scheme of Investigation
Outline Offshore Operation and Maintenance Plan	'[To be added post-consent]'	The plan provides the overarching framework for environmental management during the operation and maintenance phase of the Offshore Project.
Outline Marine Pollution Contingency Plan	'[To be added post-consent]'	Provides mitigation measures for marine mammals that may be affected by pollution incidents. The Outline Marine Pollution Contingency Plan will coordinate with MMMP where relevant.
Marine Mammal Mitigation Plan (MMMP)	'[To be added post-consent]'	Provides the proposed framework for preventing, responding to, and managing potential marine pollution incidents during all relevant stages of the Offshore Project.
Offshore Invasive Non-Native Species Mitigation Plan	'[To be added post-consent]'	Provides measures to prevent and manage Invasive Non-Native Species (INNS). Pollution incidents will be assessed for potential INNS risks.
Fisheries Mitigation Monitoring and Communication Plan	'[To be added post-consent]'	Outlines communication protocols and mitigation measures for interactions with commercial fisheries. The Outline MPCP will manage and coordinate pollution incidents affecting fisheries with this strategy.
Outline Navigational Safety and Vessel Management Plan	'[To be added post-consent]'	Outline the approach and detail around navigational safety and vessel management, ensuring environmental compliance and minimising impacts on marine receptors.
Outline Lighting and Marking Plan	'[To be added post-consent]'	Supports navigational safety and pollution prevention through appropriate marking of offshore infrastructure.
Emergency Response and Cooperation Plan (ERCOP)	'[To be added post-consent]'	Will define coordination protocols for multi-hazard emergencies, including fire, collision, and pollution events. It supports compliance with MCA MGN 654 and will be appended to the Safety Zone Application. The MPCP will operate in conjunction with

Management Plan	Licence/consent conditions	Linkage with the Written Scheme of Investigation
		the ERCoP during complex or escalated incidents.
Decommissioning Plan	'[To be added post-consent]'	Will include pollution prevention and response measures during decommissioning. The MPCP will be updated accordingly.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1.1.1 Information on marine cultural heritage and archaeology within the MASA was collected through a detailed desktop review of a number of data sources and surveys. **Table 2-1** sets out the supplementary documents relevant to the offshore consents application in respect of Offshore Archaeology and Cultural Heritage.

Table 2-1: Relevant Supplementary documents for Offshore Archaeology and Cultural Heritage

Archaeological Document	Summary
Scoping Report (Sporad na Mara Limited, 2023).	Identified the marine archaeological and cultural heritage receptors of relevance to the Offshore Project. Described the likely potential effects from the construction, operation, and maintenance, and decommissioning of the Offshore Project on marine archaeological and cultural heritage receptors and set out the proposed scope and methods for the Environmental Impact Assessment (EIA).
Chapter 15, Volume 2a	<p>The chapter considers the likely impacts and effects of the Offshore Project on marine archaeology and cultural heritage during the construction, operation and maintenance and decommissioning phases.</p> <p>In particular, the EIAR chapter:</p> <ul style="list-style-type: none"> • Identifies the key legislation, policy and guidance relevant to marine archaeology and cultural heritage; • Details the EIA scoping and consultation process undertaken to date for marine archaeology and cultural heritage; • Confirms the Study Area for the assessment, the methodology used to identify baseline environmental conditions, the impact assessment methodology, and identifies any assumptions and limitations encountered in compiling the environmental information; • Sets out the existing and future environmental baseline conditions, established from desk studies, surveys and consultation; • Details the mitigation and/or monitoring measures that are proposed to prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process; • Defines the Offshore Project design parameters used to inform the impact assessment; • Presents an assessment of the likely impacts and effects in relation to the construction, operation and maintenance and decommissioning phases of the Offshore Project on marine archaeology and cultural heritage; • Identifies any cumulative, transboundary and/or inter-related effects in relation to the construction, operation and maintenance and decommissioning phases of the Offshore Project on marine archaeology and cultural heritage.
Appendix 15.1, Volume 2c	The desk-based characterisation of the baseline environment and historic seascape character.
Annex 15.1.2, Volume 2c	The 'Archaeological Assessment of Geophysical and Hydrographic Data' report consists of an assessment of marine geophysical survey data comprising sidescan

Archaeological Document	Summary
	sonar, multibeam echosounder, sub-bottom profiler and magnetometer data, acquired by Ondine. The aim of the assessment was to identify any anomalies of archaeological potential within the Offshore Project, to further inform the planning process ahead of the Application.
Annex 15.1.3, Volume 2c	The desk-based geoarchaeological review of geotechnical information formed the first stage of investigation and aimed to establish the likely presence of and broadly characterise horizons of geoarchaeological interest and evaluated their potential. The document provided the geoarchaeological review of geotechnical logs acquired in 2024, specifically 8 boreholes collected within the Offshore Project Boundary.
Appendix 15.2, Volume 2c	The appendix evaluates the impact of Offshore Project elements on heritage assets, focusing on changes to their setting.
Appendix A: Outline Protocol for Archaeological Discoveries, Volume 3	The Protocol for Archaeological Discoveries (PAD) provides a system of monitoring for unexpected or incidental finds relating to the historic environment.

2.2 ARCHAEOLOGICAL ASSESSMENT OF GEOPHYSICAL DATA

- 2.2.1.1 MSDS Marine Limited (MSDS Marine) undertook an archaeological assessment of the geophysical and hydrographic survey data acquired by Ondine Limited (Ondine), on behalf of Aratellus Subsea Solutions PTE Limited (Aratellus) in 2023. The instruments consisted of Sidescan Sonar (SSS), Multibeam Bathymetry (MBES), Magnetometer, Parametric Sub-bottom Profiler (SBP), and Ultra High Resolution Seismics (UHRS).
- 2.2.1.2 The SSS, MBES, SBP, and Magnetometer survey were conducted with a line spacing of 100 m for the main lines and 1,500 m for the cross lines within the Offshore Project Boundary, to ensure 100% coverage of MBES data with a 10% overlap and 200% coverage of SSS. The UHRS survey was planned with a line spacing of 500 m and 1,500 m for the main lines and cross lines respectively. SBP, Sparker (a type of SBP data) and Magnetometer data were acquired along each of the survey lines.
- 2.2.1.3 The geophysical data were collected in European Terrestrial System 1989 (ETRS89) datum and a customer Transverse Mercator projection. The vertical depths are relative to Mean Sea Level (MSL) and were reduced to Lowest Astronomical Tide (LAT) using Vertical Offshore Reference Frames (VORF) model V2.1 2008. Towed sensors were positioned using an Ultra Short Baseline (USBL) positioning system for positioning accuracy. For further information regarding the assessment, technical specifications and data processing see **Annex 15.1.2, Volume 2c**.

2.2.1.4 Features identified in the SSS, MBES and Magnetometer data were discriminated by MSDS Marine in accordance with the definitions set out in **Table 2-2**.

Table 2-2: MSDS Marine criteria for the assessment of archaeological potential

Potential	Criteria
Low	An anomaly potentially of anthropogenic origin but that is unlikely to be of archaeological significance – 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.
Medium	An anomaly believed to be of anthropogenic origin but that would require further investigation to establish its archaeological significance – Examples may include larger unidentifiable debris or clusters of debris, unidentifiable structures, or significant magnetic anomalies.
High	An anomaly almost certainly of anthropogenic origin and with a high potential of being of archaeological significance – high potential anomalies tend to be the remains of wrecks, the suspected remains of wrecks, or known structures of archaeological significance.

2.2.1.5 The archaeological assessment of geophysical data identified 4 surface geophysical anomalies of medium archaeological potential and 21 anomalies of low archaeological potential. No surface geophysical anomalies interpreted as of high archaeological potential were identified within the geophysical survey data extents.

2.2.1.6 The SBP and UHRS data assessment mapped Quaternary sediments within the data extents. The data identified relatively thin sediment cover across the Offshore Project, with 2 deep basins of sediment where depths extend to approximately 110 m in the Array Area.

2.2.1.7 Horizons identified within the SBP data include U05 and U30 interpreted to be rock/bedrock and U10 interpreted to be modern seabed sediments. Units H4, U15, U17 and U20 are interpreted to be a variety of Quaternary sediments, likely representing Quaternary sediments, undifferentiated by the British Geological Survey (BGS), but with those in the wider area indicating primarily glacial or glaciomarine origins (mostly relating to the Devensian). Unit H3 presented in the data as well-bedded sediments within the two deep basins, is likely to represent the Late Glacial to Early Holocene Annie Formation.

2.2.1.8 The nearshore data was very poor and neither the depth of sediment nor internal horizons could be mapped with any confidence.

2.3 MARINE GEOARCHAEOLOGICAL ASSESSMENT

2.3.1.1 Geotechnical data comprising 8 boreholes (BH) were obtained using a combination of sonic and push core sampling, these were acquired between the 18 July 2023 and 9 September 2023. The BHs

were initially reviewed (Stage 1) by a geoarchaeology team at WSP (**Annex 15.1.3, Volume 2c**). To date, 1 of the 4 stages of assessment has been undertaken:

- Stage 1: Geoarchaeological review of geotechnical data;
- Stage 2: Geoarchaeological description and interpretation (not currently recommended);
- Stage 3: Sub-sampling and palaeoenvironmental assessment (not currently recommended);
- Stage 4: Palaeoenvironmental assessment (not currently recommended).

2.3.1.2 The Stage 1 geoarchaeological review of geotechnical data used the reported geology, topography, and research on sea-level change and past ice mass locations to develop an understanding of the palaeolandscape and sediment sequences off the northwest coast of *Lewis/Eilean Leòdhais*.

2.3.1.3 The log review shows that boreholes further from the coast record sediment deposited by retreating glaciers. These sediments would have accumulated beneath the ice through glaciofluvial processes. The offshore borehole logs record entirely minerogenic deposits with no evidence of organic remains. The dynamic environment, remote location and cold temperatures would have likely made this location fairly inhospitable for human occupation in the Pleistocene and early Holocene. It is considered that the potential for prehistoric archaeological remains is low; however, it is recognised that early Neolithic Relative Sea Level (RSL) fell (to -2 m Ordnance Datum (OD)) following Mesolithic flooding and would have exposed land now offshore to human exploitation during a period of megalith and crannog construction on *Lewis/Eilean Leòdhais*.

2.3.1.4 While Stage 2 investigation is considered not to be warranted based on present results, any further geotechnical information both off- and onshore will contribute to understanding the landscape and archaeological potential.

2.4 PALAEOLANDSCAPES

2.4.1.1 The Quaternary period is dominated by alternating glacial and interglacial cycles that have affected northwest Scotland/*Alba* (Ballantyne 2009). During these glacial periods, the ice sheets covered across the Outer Hebrides/*Na h-Eileanan Sià* and extended into the modern marine environment which can be seen in the survival of evidence of moraines, glacial debris/till deposits, in the west of the Array Area. Substantial variation in sea level corresponded to the glacial-interglacial epochs reaching a maximum amplitude of 120 m, with sea level at or above present level, during the short warm stages (Bailey and Flemming 2008).

2.4.1.2 The last of these glacial periods is the Last Glacial Maximum (LGM) which occurred from c. 21-17,000 Before the Common Era (BCE) during the Devensian glaciation cycle (c. 107,000-9,500 BCE) and coincides with the Upper Palaeolithic period of human history. The ice sheet reached its maximum extent during this time advancing across the Outer Hebrides/*Na h-Eileanan Sià* and much of the British mainland and Ireland. The ice sheet significantly transformed the Lewisian

topography, eroding and shaping the landform through various glaciation processes and other depositional features. The Isle of Lewis/*Eilean Leòdhais* was largely uninhabitable as it was under ice but shell deposits dating to the Late Devensian identified in the north of Isle of Lewis/*Eilean Leòdhais* suggest that part of the island was ice-free (Bradwell *et al.*, 2019). This area would have been subject to harsh climatic conditions and is unlikely to have been utilised for settlement or sustained activity

- 2.4.1.3 The sub-bottom profiler data shows evidence of 2 narrow, deep basins of up to 110 m in depth and moraines within the Offshore Project boundary. The Annie Formation has been identified within the basins and better understanding of these deposits would aid understanding of the development of the palaeolandscape and the timing of inundation events.
- 2.4.1.4 The sudden and dramatic cooling in the Loch Lomond Stadial or the Younger Dryas (12,900-11,700 BCE) in the Late Devensian (27,000-9,700 BCE) led to a re-advance of the glaciers and a colder, drier climate. This temporarily slowed sea level rise and delayed human settlement until the improved climatic conditions of the Holocene (commencing c. 9,700 BCE), which is characterised by warming climate and regression of the ice sheets resulting in rapid sea-level rise until c. 5,000 BCE. The melting of major ice sheets globally, particularly the Laurentide Ice Sheet in North America and the Fennoscandian Ice Sheet in Europe caused rapid sea level rise (Bell *et al.*, 2024) but this was moderated by regional isostatic adjustments (Bell *et al.*, 2024). The rising sea levels in this period inundated the continental shelf encircling the British Isles, which would have included any surviving exposed areas of the Site. The nearshore was not able to be surveyed so the potential for deposits containing palaeoenvironmental remains within that area is not well understood; however, intertidal peats have been extensively identified along the Outer Hebrides/*Na h-Eileanan Sià* coastline and the possibility of their presence cannot be discounted.

2.5 ARCHAEOLOGICAL BACKGROUND

- 2.5.1.1 **Appendix 15.1, Volume 2c** provides a detailed archaeological and historical background, which is summarised here by period. The reference numbers (A1, A2 etc.) used in the background correspond to the reference numbers within the Marine Historic Environment Gazetteer (**Appendix 15.1, Volume 2c**).

2.5.2 HERITAGE ASSETS

- 2.5.2.1 No designated heritage assets are recorded within the Offshore Project Boundary. The desk-based evaluation identified 45 non-designated assets within the MASA and 1 non-designated asset within the Offshore Project Boundary.

Prehistoric (800,000 BCE – CE 400)

- 2.5.2.2 The Lower Palaeolithic (800,000-250,000 BCE) and Middle Palaeolithic (250,000-40,000 BCE) archaeological periods broadly correlate to the Anglian and Wolstonian, while the Upper Palaeolithic (40,000-10,800 BCE) coincides with the LGM that occurred during the Devensian glaciation. These periods witnessed intermittent, likely seasonal, Hominin occupation within southern Britain as the climate oscillated between glacial and interglacial stages but there is no evidence of human occupation or activity in the early periods of the Palaeolithic in Scotland/*Alba* or the Western Isles.
- 2.5.2.3 The archaeology of the Upper Palaeolithic (40,000-10,800 BCE) is characterised by new stone-working techniques, the use of bone and other materials, art and the presence of anatomically modern humans (*Homo sapiens sapiens*) who were nomadic hunter-gatherers. The earliest confirmed evidence of human activity in Scotland/*Alba* are lithic scatters deposited between 12,300-12,000 BCE at Howburn Farm in Biggar (Canmore ID 216532; outside of the MASA) and in Kilmelfort Cave (Canmore ID 22882; outside of the MASA) in Argyll, both approximately 300 km to the southeast of the MASA. It is considered that Palaeolithic activity is unlikely within the Isle of Lewis or the Offshore Project boundary given the harsh climatic conditions and distance from known areas of activity and temporary settlement during this period. There is no known evidence of maritime activity from this period in Scotland/*Alba* and no Palaeolithic remains have been identified within the MASA.
- 2.5.2.4 Evidence from archaeological and geotechnical investigations within the Outer Hebrides/*Na h-Eileanan Siar* suggests that the environment on Lewis/*Eilean Leòdhais* in the Mesolithic period was comprised of mixed woodland with little evidence of predatory animals due to its early separation from the mainland (MacLeod Rivett, 2021). Early evidence of Mesolithic activity in Lewis/*Eilean Leòdhais* is limited to lowered pollen levels and increases in charcoal within environmental samples dated to the period (Gregory *et al.*, 2005). The closest evidence of Mesolithic occupation to the Offshore Project is a shell midden site at Traigh Na Beirigh on the Uig peninsula (Canmore ID 348338; outside the MASA), 10 km to the southwest of the Offshore Project. Fish bones were also found within the midden suggesting exploitation of the marine environment for food at this time. There is no known evidence of Mesolithic activity within the Offshore Project Boundary or MASA. Potential for archaeological remains relating to evidence of Mesolithic resource exploitation activity would likely be limited to the nearshore and intertidal.
- 2.5.2.5 Sea levels were near modern levels by the Neolithic period (4,100 BCE-2,500 BCE) and the coastline had retreated to near its modern position, not accounting for later isostatic rebound which saw coastlines in Lewis/*Eilean Leòdhais* rise slowly. Investigations of 6 Neolithic crannog sites in inland lochs on Lewis/*Eilean Leòdhais* have found evidence that they were constructed c. 3,500 BCE for use in ritual or feasting activities (Calanais, 2025). The Later Neolithic (3,300-2,500 BCE) saw more complex structures erected in the landscape such as standing stones, henges, and stone circles, with these monuments usually erected in conspicuous locations, most notably within Lewis being

the Calanais stones and the ritual landscape it sits within. Material culture also became more elaborate and complex.

- 2.5.2.6 There is no evidence of Neolithic activity within the Offshore Project Boundary or MASA. The closest evidence of Neolithic activity to the Offshore Project Boundary is a possible Neolithic to Bronze Age stone alignment and a shell midden deposit (Canmore ID 335347; outside the MASA) that are likely part of a larger settlement, 95 m east of the eastern edge of the MASA near Rubh' a' Bhiogar in Barvas/*Barabhas*.
- 2.5.2.7 The Bronze Age (2,500-800 BCE) is generally characterised by technological innovation and exchange as well as the expansion of trade links. The closest known late Neolithic and Bronze Age coastal settlement is located at Dalmore Bay (HES reference SM6292; outside of the MASA) 4.1 km to the south of the southwest end of the Offshore Project Boundary. There is no direct evidence of Bronze Age watercraft within the Offshore Project Boundary and MASA or on the Isle of Lewis/*Eilean Leòdhais* and such evidence is rare in the British Isles as a whole. The Offshore Project Boundary would have been utilised at this time for marine resources and for maritime travel and trade.
- 2.5.2.8 By the Iron Age (800 BCE-400 CE), maritime vessels were comparatively larger, more robust and better suited for open sea journeys than in earlier periods. Trade routes were more complex with a wider variety of goods such as salt, metal and textiles across coastal and inland regions, reflective of a sophisticated economy and heightened cultural interaction (ScARF, 2025). The Atlantic seaways likely played a crucial role in this network, connecting Scotland/*Alba*, including Lewis/*Eilean Leòdhais*, with other Atlantic societies. Known settlement areas dating to the Iron Age near the Offshore Project include 2 settlement mounds overlaid with a later medieval church and graveyard, one at Port Mhór Bragar called Teampull Eoin (HES reference SM3926; outside of the MASA) 155 m south of the Offshore Project Boundary and another at Shader/*Siadar an Rubha* called Teampull Pheadair (HES reference SM5341; outside of the MASA), 3.2 km northeast of the northeastern end of the Offshore Project Boundary.
- 2.5.2.9 Although no direct evidence of Iron Age activity has been found within the Offshore Project Boundary and MASA, Iron Age settlements and brochs in nearby areas suggest the potential for evidence of maritime trade and marine resource exploitation. Possible examples of later prehistoric settlement and marine resource exploitation have been found within the MASA but the remains have not been dated or confirmed archaeologically. The remnants of a cairn (A40), noted by the SNHRE as a potential Atlantic roundhouse, is recorded within the intertidal zone 1.3 km to the southwest from the proposed landfall of the Offshore Project. The cairn has not been the subject of an archaeological investigation and its identification and date have not been confirmed. A possible midden evidenced by a find of 12 later prehistoric pottery sherds from 5 vessels (A33) in conjunction with shell remains was found at the bottom of a sandy cliff within the intertidal zone 1.7 km south of the Offshore Project Boundary.

Roman (70–165 CE)

2.5.2.10 The Roman occupation of Scotland/*Alba* was short-lived with activity concentrated in southern Scotland/*Alba*. Most of the evidence of Roman activity and occupation is located to the south or east of the Antonine Wall and Gask Ridge fortifications. There is no evidence found to date of Roman activity or occupation in Lewis or within the Offshore Project Boundary, though there is evidence of Roman material culture in Iron Age settlement sites suggesting the possibility of trade between the native population and the Romans.

Medieval (400–1560 CE)

2.5.2.11 In the 5th century, the older building practices were abandoned and an architectural style seen more commonly in the areas of Scotland/*Alba* under Pictish control began to proliferate in the Outer Hebrides/*Na h-Eileanan Siar*. The Pictish kingdoms were a group of kingdoms culturally and politically aligned based in the northeast of Scotland/*Alba* and the Orkneys/*Arcaibh*. The Picts had gradually expanded their control across much of the north of Scotland/*Alba* in the centuries of the late Iron Age and early medieval. It is likely that the island residents were influenced by the Picts through the marine trade routes, which allowed for proliferation of ideas and practices as well as goods and people.

2.5.2.12 It is unclear if Lewis/*Eilean Leòdhais* was ever politically aligned with the Picts or experienced an influx of Pictish settlement but evidence from the 5th and 6th centuries suggests that the Outer Hebrides/*Na h-Eileanan Siar* were independent at this point and evidence of influence from both the Picts and the Scots of the Dál Riata in the early centuries of the medieval has been found (MacLeod Rivett, 2021, 96-97). By the 10th century, the Picts and the Scots had merged in response to pressure from Viking activity forming a new Scoto-Pictish polity, the Kingdom of Alba, that dominated the west and north of Scotland/*Alba* carrying aspects of both cultures into the creation of the Scottish identity (McDonald, 2019).

2.5.2.13 Known evidence of Viking settlement and activity within Lewis/*Eilean Leòdhais* dates from the 10th Century and documentary evidence suggests that there was a period of cultural assimilation throughout the Innis Gall in which aspects of both native cultures and Norse culture survived to shape the emerging Kingdom of the Isles with its centre on the Isle of Man (McDonald, 2019, 22). The closest evidence of Viking settlement to the Offshore Project or MASA is the multi-period settlement of Bosta/*Bostadh* (HES Reference SM7335; outside of the MASA) on Great Bernera/*Beàrnaraigh Mòr*, a small tidal island, 7.6 km to the southwest of the southeast end of the Offshore Project Boundary. This site further suggests an overlap between the Norse and earlier local inhabitants through remnants of Pictish or Iron Age houses discovered beneath the Viking structures (Medieval Histories, 2015). The abundant shellfish remains and other indicators show that the Vikings depended heavily on maritime resources in and around Lewis/*Eilean Leòdhais*.

2.5.2.14 No direct evidence of medieval activity has been found within the Offshore Project Boundary and MASA. There is a single example of possible medieval settlement comprised of 4 square structures

(A44) within the MASA located 100 m to the northeast of the proposed landfall of the Offshore Project Boundary along the coast at MHWS. The remains have not been archaeologically investigated to confirm date and extent. Continued use of earlier settlements in nearby areas suggest the potential for evidence of local maritime trade and marine resource exploitation. Any remains would likely be found near or on shore adjacent to or within areas where settlements were located.

Post-medieval (1540 – 1900 CE)

- 2.5.2.15 The post-medieval period is considered to be one of the most important periods for maritime activity given the rapid innovations in ship technology including the gradual shift from traditional wind-powered ships to steam and petrol engines. This was driven in part by the demands of the increasingly global maritime trade and naval activity and the innovations of the Industrial Revolution (Wessex Archaeology, 2011).
- 2.5.2.16 The first textual description of the Isle of Lewis//*Eilean Leòdhais* was undertaken by Martin Martin in 1695 and first published in 1703 following his travels through the Western Islands. The island retained its rural aspects with most of the activities centred on subsistence farming or maritime endeavours including trade and resource exploitation. Martin, 1703 describes the use of marine resources for food and fodder for domesticated livestock. He also details the connections with the surrounding smaller islands including the Flannan Islands/*Na h-Eileanan Flannach*.
- 2.5.2.17 Stornoway/*Steòrnabhagh* developed into a central hub for the expansion of fishing, trade and vessel design on the Isle of Lewis/*Eilean Leòdhais* between the 16th and 19th Centuries. Small open boats such as sgoths and modified Norse-inspired birlinns had been utilised by Lewis/*Eilean Leòdhais* inhabitants to facilitate local travel and fishing throughout the post-medieval period (Fenton, 1997). These were able to be pulled on shore in sheltered locations or in dedicated boat nausts, an example of which is noted within the MASA at Port Mhor Bragar (A30) located 1.9 km south of the Offshore Project Boundary. Dutch fishing methods and the herring trade had a significant impact on the Hebridean maritime customs during this time, and fishing for herring and cod gradually became the mainstay of the local economy (Withers and Dodgshon, 1999). Local fishing and kippering practices were possibly influenced by Dutch vessels that frequently operated in the Hebridean waters, such as the herring busses, which were big, robust fishing ships built for herring (Withers and Dodgshon, 1999). Evidence of fishing activities within the MASA is limited to a loss record of a wooden lugsail fishing vessel, the *Standard* built in 1875, which is recorded as having foundered and sank at Shawbost/*Siabost* in Lewis/*Eilean Leòdhais* in 1882 (A2).
- 2.5.2.18 The ocean off of the west coast of Lewis/*Eilean Leòdhais* was part of the north area of the Western Approaches into the North Atlantic. The waters were part of trade routes between Scandinavian countries, Russia, and the northeastern ports of Britain and the territories within Iceland, Greenland, and the North American continent. There are loss records for 19 ships dating between 1796 and 1874 located within the MASA (**A1, A3-A5, A9, A10, A12-A14, and A16-A20**). The

locations are not known and none of these wrecks have been relocated through archaeological investigation. The loss records for 6 further undated wrecks are also noted within the coastal waters within the MASA (**A6-A8, A11, A14, A15**). It is likely that these ships also dated from the post-medieval but could be early modern in date given the rise of more accurate recordkeeping in the post-medieval period.

Modern (1901 CE - Present)

- 2.5.2.19 The maritime activity on the Isle of Lewis/*Eilean Leòdhais* after the post-medieval period, particularly during the early 20th century, was shaped by a complex interplay of military conflicts and advancements in maritime technology.
- 2.5.2.20 During the First World War more than 6,000 men joined the war effort equating to the majority of the able-bodied men on Lewis/*Eilean Leòdhais* (Hebridean Connections, 2025). Of those, 1,151 were lost during the war and a further 181 were lost on their return to the island in the wrecking of the HMY *Iolaire*, just outside of Stornoway/*Steòrnabhagh* Harbour, in 1919 (The Iolaire Centre, 2025).
- 2.5.2.21 The remoteness of Lewis/*Eilean Leòdhais* left it vulnerable during the Second World War. The protection of the Western Approaches, which would have included the Offshore Project Boundary, was undertaken by the Western Approaches Command out of Liverpool. A Royal Air Force base was established in Stornoway/*Steòrnabhagh*, RAF Stornoway/*Steòrnabhagh*, on a 1930s civilian airstrip in 1941 to facilitate maritime patrols within the area during the war (ABCT, 2025). RAF Stornoway/*Steòrnabhagh* offered a staging point for long-range patrol aircraft, including Short Sunderland flying boats. To supplement the activities, a watcher's hut was established on the cliffs at Gallan Head utilised by men in the local branch of the Auxilliary Coastguard Service during the war to monitor the Northwest Approaches. The watcher's hut, now called RAF Aird Uig, was replaced with a type R10 radar station in 1954 to maintain the monitoring of the approaches (Comann Eachdraichd Uig, 2025). Following the war, fishing and other resource extraction activities have continued within the Offshore Project Boundary but on a smaller scale.
- 2.5.2.22 There are no known sunken military watercraft or aircraft remains within the Offshore Project Boundary and MASA.

3 ARCHAEOLOGICAL POTENTIAL AND STATEMENT OF SIGNIFICANCE

3.1 PALAEOLANDSCAPE

- 3.1.1.1 The MASA has moderate potential for palaeolandscape remains. The MASA was impacted by the advance and retreat of the last ice sheet during the LGM in the Late Devensian glaciation c. 21-17,000 BCE. Prior to this, there are indications that the ice sheet was also present in the northwest sector between c. 42,000-36,000 BCE and 30,000-28,000 BCE during previous glaciation events during the Devensian glaciation cycle (Bradwell *et al.*, 2021). Numerous stages of deglaciation subsequently took place in the northwest sector between c. 26,000-23,000 BCE, indicated by ice-retreat features and ice-marginal sediments deposited close to the present-day coastline.
- 3.1.1.2 The nearshore was not surveyed therefore it did not undergo archaeological assessment; therefore, the potential for palaeoenvironmental remains is estimated as moderate. Remains of submerged post-glacial landscapes, including intertidal peat deposits and buried tree stumps, have been recorded along the western shores and further investigation within this area of the Offshore Project Boundary is needed to clarify the potential (for further information see Section 15.8.2 of **Chapter 15, Volume 2a**).

3.1.2 PREHISTORIC

- 3.1.2.1 The MASA has low potential to contain Palaeolithic remains. There is the possibility that land within the Offshore Project Boundary was sub-aerial during the Palaeolithic though the extent is currently undetermined. The climate would have been harsh and the exposed land would not have been desirable for extensive use or settlement though may have been exploited intermittently for resources. There are no known Palaeolithic sites in the MASA and the closest known sites are on the Scottish mainland. Isolated findspots of stone tools or faunal remains dated to this period are possible within or at the interface between Pleistocene deposits and later geological deposits but are considered unlikely.
- 3.1.2.2 The MASA has moderate potential to contain Mesolithic prehistoric remains. The earliest evidence for human habitation on Lewis is associated with peat samples. Evidence of Mesolithic activity is generally limited to lithic scatters, but it is possible that evidence of temporary settlement is present in response to the abundant natural resources, both marine and terrestrial, that would have been available during the period.
- 3.1.2.3 The MASA has moderate potential to contain evidence of marine resource exploitation during the Neolithic, Bronze Age and Iron Age. Although there is no direct evidence of watercraft from these periods within the MASA, historic environment records onshore along the coast, including assets,

indicate potential sites of archaeological interest in the intertidal region, and thus may be used as a proxy for potential offshore activity.

3.1.3 ROMAN

3.1.3.1 The MASA has no potential to contain Roman remains. There is no evidence of Roman activity in Lewis/*Eilean Leòdhais* or the wider Outer Hebrides/*Na h-Eileanan Siar*. Evidence of the use of ships for coastal trading and Roman military activity is possible but is considered unlikely as they were not known to have included the region within their trade network.

3.1.4 MEDIEVAL

3.1.4.1 The MASA has moderate potential to contain medieval remains. Evidence suggests that coastal trading, international trading, and local resource exploitation continued into the medieval period. Although there is no direct evidence related to the Vikings within the MASA, the multi-period settlement of Bosta/*Bostadh* on Great Bernera/*Beàrnaraigh Mòr*, a small tidal island adjacent to Lewis, provides archaeological evidence of Viking inhabitation within the area.

3.1.5 POST-MEDIEVAL

3.1.5.1 The MASA has high potential to contain post-medieval remains. From the 16th-19th century, maritime activity on the Isle of Lewis/*Eilean Leòdhais* expanded significantly. As well, a local increase in maritime travel and trade around the island and mainland Scotland/*Alba*, Dutch vessels frequently operated in Hebridean waters and wooden vessels dating from this period have been identified in other coastal areas, such as the 17th-18th century wooden wreck identified at Drumbeg in the Highlands (Wessex Archaeology, 2012).

3.1.6 MODERN

3.1.6.1 The MASA has moderate potential to contain modern remains. Although no designated or known sites were identified within the MASA, the area was utilised during the First and Second World Wars as well as having RAF bases on Lewis/*Eilean Leòdhais*. Submarine activity during both World Wars resulted in numerous wrecking events of commercial, military and personal vessels.

4 RESEARCH PRIORITIES

- 4.1.1.1 Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) states that a WSI should set out *"the importance of research frameworks in setting objectives that are delivered through realisation of the work"*.
- 4.1.1.2 The following research frameworks have been identified as relevant to the marine archaeology resource of the Offshore Project Study Area:
- Scotland's Island Research Framework for Archaeology (SIRFA).
- 4.1.1.3 Additional research aims may be identified as relevant depending on the specific archaeological work to be undertaken. Any archaeological work and reporting under this OOWSI will tie research into the relevant research frameworks and agendas, ensuring that the Offshore Project makes a contribution to archaeological knowledge. The objectives of the research frameworks will be used to guide work and recommendations made by the Archaeological Consultant and Retained Archaeologist to the Offshore Project.

5 ROLES, RESPONSIBILITIES AND COMMUNICATION

- 5.1.1.1 Overall responsibility for the implementation of the Final Offshore WSI will lie with the Applicant who will ensure that its agents and contractors are contractually bound to adhere to the terms of the Final Offshore WSI and to implement the PAD.
- 5.1.1.2 For each package of archaeological works, the Applicant or their agents will, as required, procure the services of specialist archaeological contractors with the requisite experience and expertise to undertake the necessary works. In addition, the Applicant will retain the services of a suitably qualified and experienced archaeological consultant (the Retained Archaeologist) to ensure the effective implementation of the Final Offshore WSI and other contractual commitments in relation to archaeology.
- 5.1.1.3 The 'Regulator' is responsible for the approval of the WSIs and is advised by the Archaeological Curator. The regulator within Scotland/*Alba* is Scottish Ministers and MD-LOT on behalf of the Scottish Ministers.
- 5.1.1.4 The Marine Directorate's statutory advisor on the marine historic environment and the Archaeological Curator for heritage matters offshore (below MHWS) is also the Local Planning Authority's archaeological advisor, Comhairle na Eilean Archaeological Service. The 'Archaeological Curator(s)' provides the development control and planning advice to the regulators, has the final decision on the scope of work and signs off the archaeological fieldwork when it is complete, in consultation with the consultant.
- 5.1.1.5 The Receiver of Wreck (ROW) is a civil servant who is responsible for dealing with cases of voluntary salvage wreck material across the UK and ensures that the interests of both salvor and owner are taken into consideration. In the event that wreck material is identified and/or recovered, the find will be reported to the ROW.
- 5.1.1.6 The 'Archaeological Consultant' is responsible for managing the scope and for monitoring and assuring the work on behalf of the Applicant. The team will liaise directly with the Retained Archaeologist, Curator, and the Regulator.
- Compiling, reviewing and updating this OOWSI following consultation with the regulators (The Marine Directorate) and curators (HES) post-consent to produce a final, agreed Offshore WSI; Advising the Applicant on their responsibilities regarding the implementation of the Final Offshore WSI and the PAD;
 - Compiling, agreeing and issuing method statements for archaeological contractors to adhere to, following consultation with the Applicant and the Regulators and Curators;
 - Advising the Applicant on the necessary interaction with the Regulators, Curators and other third parties.

- 5.1.1.7 The 'Retained Archaeologist' is responsible for managing the implementation of the PAD (see **Appendix A: Outline Protocol for Archaeological Discoveries, Volume 3**) and for monitoring and assuring the work of specialist archaeological contractors, on behalf of the Applicant. The Retained Archaeologist will liaise directly with the Archaeological Consultant, Curator and the Regulator. The Retained Archaeologist should have the autonomy to make recommendations, based on their specialist knowledge and experience. The responsibilities include:
- Procuring, monitoring the work of, and liaising with specialist archaeological contractors;
 - Monitoring the preparation and submission of archaeological reports as appropriate and making them available to the Regulators and Curators for review and approval;
 - Advising the Applicant on any final requirements and arrangements for further analysis, archive deposition, publication and popular dissemination.
- 5.1.1.8 The 'specialist archaeological contractors' are responsible for carrying out the fieldwork, post-excavation reporting, deposition of the archive and dissemination as needed. The specific responsibilities of specialist archaeological contractors during subsequent phases of work will be set out in separate task/work package-specific method statements.
- 5.1.1.9 All agents and contractors engaged by the Applicant will:
- Familiarise themselves with the requirements of the Final OOWSI and make it available to their staff, explaining the requirements and need for strict adherence;
 - Familiarise themselves with the PAD (see Section 7.3.1.1, 7.3.1.7 and **Appendix A: Outline Protocol for Archaeological Discoveries, Volume 3**) and ensure the implementation of and adherence to the protocol by staff, including ensuring staff awareness of the protocol and making staff available for training through toolbox talks, as necessary;
 - Assist and afford access to archaeological contractors as advised by the Applicant and the Retained Archaeologist;
 - Inform the Retained Archaeologist and the archaeological contractors of any environmental or health and safety constraints of which they may be aware that are relevant to the archaeologist's activities on site.
- 5.1.1.10 Prior to and during the course of any geoarchaeological recording, assessment and analysis, consultation with the Archaeological Curator is also recommended to agree on the suitability of the approach.

6 COMMITTED MITIGATION MEASURES

6.1 EMBEDDED MITIGATION MEASURES

6.1.1.1 In order to prevent significant impacts, the following mitigation will be embedded in the Offshore Project design and will be secured through conditions set out in the Section 36 and Marine Licence:

- 50 m Archaeological Exclusion Zones (AEZs) around the extent of likely anthropogenic debris within which no development-related activities will take place, to prevent damage to or disturbance of a wreck, aircraft or features on the seafloor during activities that may cause direct impacts to a receptor;
- 25 m AEZs around anomalies identified as potential debris;
- Avoidance where possible of identified anomalies by micro-routing;
- Avoidance by micro-routing where possible of previously recorded sites that have not been seen in the geophysical data and at which the presence of surviving material is considered unlikely, although it cannot be entirely discounted;
- Further investigation of any identified anomalies and previously recorded sites that cannot be avoided by micro-siting of design;
- Further examination of potential palaeoenvironmental deposits including geoarchaeological recording of core samples, deposit modelling and archaeological input into any future sampling programme(s);
- In the event of impact to potential sites, the establishment of a formal protocol to ensure that any finds are promptly reported, archaeological advice is obtained, and any recovered material is stabilised, recorded and conserved (PAD);
- Watching briefs, when warranted, where seabed material is brought to the surface, for example during pre-lay grapnel runs and the excavation of the Horizontal Directional Drilling pit;
- The archaeological assessment of any further geophysical data gathered to inform detailed design or if requested during monitoring of AEZs.

6.1.1.2 The Archaeological Strategy is outlined in Section 7 with details on the proposed AEZs found in **Table 7-1**.

6.2 ADDITIONAL MITIGATION

6.2.1.1 Additional mitigation is not expected but may be required where anomalies or AEZs cannot be avoided, sites are potentially of sufficient importance, or where unexpected discoveries are encountered and reported through the PAD. This may include measures to further investigate the nature and extent of anomalies and/or discoveries, to establish the archaeological interest and to record them prior to removal. The precise methodology for such works would be set out in works

site-specific method statements in consultation with the Archaeological Curator prior to works commencing.

7 ARCHAEOLOGY STRATEGY

- 7.1.1.1 The methodologies presented below summarise the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021). It is an essential requirement of this OOWSI that all approaches presented in this document adhere to The Crown Estate's methodologies with the exception of any adaptations and amendments under agreement with The Marine Directorate in consultation with their archaeological curator.
- 7.1.1.2 Not all of the methodologies will be suitable or required to mitigate impacts. Where it has been determined that there is no potential for archaeological, palaeoenvironmental or palaeolandscape remains through the assessment of geophysical or geotechnical data and/or groundtruthing, no further work would be required.

7.2 ARCHAEOLOGICAL SAMPLES AND ARTEFACTS

- 7.2.1.1 In the event that further environmental samples are obtained during any additional pre-construction geotechnical surveys, any samples that are suitable for archaeological and palaeoenvironmental assessment will be subject to geoarchaeological assessment (see paragraphs 7.5.1.1 to 7.5.1.7).
- 7.2.1.2 Any remains encountered during the Offshore Project activities would be treated in accordance with the relevant guidance (The Crown Estate, 2021) and:
- Standards and guidance for the collection, documentation, conservation and research of archaeological materials (ClfA, 2020b);
 - First Aid for Finds (Leigh *et al.*, 1998);
 - First Aid for Underwater Finds (Robinson, 1998).
- 7.2.1.3 Isolated discoveries of artefacts that may come to light during the course of the development will be dealt with through the PAD (see paragraphs 7.3.1.1 to 7.3.1.7).
- 7.2.1.4 With regard to archaeological works from the point of discovery, all finds will be held by the archaeological contractor in appropriate conditions pending further recording, investigation, study or conservation.
- 7.2.1.5 Recovered objects will be selected, retained or disposed of in accordance with the policy agreed with the institution receiving the archive, and in consultation with the archaeological contractors. Contingency will be made for specialist advice and conservation needs on-site should unexpected, unusual or extremely fragile and delicate objects be recovered.
- 7.2.1.6 If human remains are discovered an application for a licence from the Ministry of Justice under Section 25 of the Burials Act 1857 will be made by the Archaeological Contractor(s). The works will also take place in accordance with the appropriate Environmental Health regulations. With regard to the remains of crashed aircraft, the majority of aircraft wrecks are military and so fall under the

legal protection of the Protection of Military Remains Act 1986. Other specific and bespoke requirements may also be required.

- 7.2.1.7 All archaeological artefacts that have come from a shipwreck are considered to be subject to the Merchant Shipping Act 1995. The Applicant, via their archaeological contractors, will ensure that the Receiver of Wreck is notified within 28 days of recovery, by the Applicant or their agents, for all items of wreck that have been recovered.
- 7.2.1.8 All recovered materials will be subject to a conservation assessment to gauge whether special measures are required while the material is being held. This conservation assessment will be carried out by the Retained Archaeologist or an archaeological contractor with advice from appropriate specialists. The Retained Archaeologist (where appointed) or an archaeological contractor will implement recommendations arising from the conservation assessment. Where no special measures are recommended, finds will be conserved, bagged, boxed and stored in accordance with industry guidelines (Leigh *et al.*, 1998 and ClfA, 2020b).

7.3 PROTOCOL FOR ARCHAEOLOGICAL DISCOVERIES

- 7.3.1.1 To account for unexpected discoveries of archaeological material during construction, operation and decommissioning a formal protocol is required. It is recommended that if any objects of possible archaeological interest are encountered, they will be reported using the protocol outlined in **Appendix A: Outline Protocol for Archaeological Discoveries, Volume 3**, which is based on the Protocol for Archaeological Discoveries: Offshore Renewables Projects (The Crown Estate, 2014). This will establish whether the objects are of archaeological interest and recommend appropriate mitigation measures where necessary.
- 7.3.1.2 Activities during which previously unidentified sites or unexpected discoveries of material may be encountered include:
- Pre-construction surveys, examples may include:
 - Anomalies on the seabed identified by geophysical contractors;
 - Obstructions on the seabed encountered during geotechnical surveys or grab sampling;
 - Archaeological material within cores or grab samples;
 - Seabed features identified during diver or Remotely Operated Vehicle (ROV) surveys;
 - Seabed clearance, pre-lay grapnel runs (e.g. finds brought to the surface);
 - Plough and grapnel clearance activities;
 - Vessel anchoring (e.g. anchor caught on obstruction);
 - Installation of cables (e.g. obstruction interactions with cable lay plant).
- 7.3.1.3 The PAD allows for the effective reporting of discoveries of archaeological material to ensure that advice, concerning measures to address discoveries, is received and implemented efficiently.

- 7.3.1.4 Each vessel or worksite team has a Site Champion, a single person responsible for reporting discoveries to a Nominated Contact in the Applicant's core team. The Nominated Contact will contact the Retained Archaeologist and Archaeological Consultant regarding any new discoveries.
- 7.3.1.5 Individual Site Champions for specific activities will be specified in work package method statements and the identity of the Site Champion will be clearly communicated to work teams. The Applicant will be responsible for ensuring that teams are provided with appropriate training in the application of the PAD and that all staff and contractors are aware of their responsibilities under the protocol. The Applicant may utilise the expertise of the appointed Retained Archaeologist to manage the PAD.
- 7.3.1.6 Training to construction staff, site crews and work teams with regard to the practical application of the protocol can be provided by the Retained Archaeologist. Hard copies of the PAD document will be made available for use on board the construction vessels.
- 7.3.1.7 Provision will be made by the Applicant, in accordance with PAD, for the prompt reporting/recording to the Archaeological Curator of archaeological remains encountered or suspected during works. If the find is a wreck within the meaning of the Merchant Shipping Act (1995) then a report will also be made to the Receiver of Wreck. If the find is treasure within the meaning of the Treasure Act (1996) then a report will also be made to the Coroner.

7.4 MARINE GEOPHYSICAL INVESTIGATIONS

- 7.4.1.1 If further geophysical surveys are required as part of the project, further geophysical survey campaigns should consider archaeological objectives, as advised by the Retained Archaeologist and/or archaeological contractor. A method statement will set out the specific details of the campaign and the methodology for archaeological assessment of acquired geophysical survey data in order to inform consultation with the Archaeological Curator and to provide sufficient instruction for the completion of data acquisition programmes to the highest quality standards possible. Archaeological briefings for survey staff may be carried out prior to the commencement of surveys and the Applicant will be responsible for ensuring that surveys proceed in accordance with any planned method statement.
- 7.4.1.2 The results of further archaeological interpretation of acquired geophysical data will be compiled as an archaeological report consistent with industry guidelines. The results of further geophysical interpretation will also inform requirements for further investigation (e.g. ground-truthing as set out in paragraphs 7.7.1.1 to 7.7.1.8).
- 7.4.1.3 The ROW will be notified as soon as possible following new discoveries with the aim of protecting any new wreck sites from salvage attempts. Procedures for contacting the ROW following the identification of any new wreck sites will be made clear within the agreed documentation, including method statements for the archaeological assessment of geophysical data.

7.5 MARINE GEOARCHAEOLOGICAL INVESTIGATIONS

- 7.5.1.1 If further marine geotechnical investigation is required as part of the project, borehole records will be reviewed and assessed by qualified geoarchaeologists in accordance with industry guidelines. The Archaeological Curator will be consulted regarding scope and methodology of any further investigations.
- 7.5.1.2 Prior to any further marine geotechnical investigations, it is recommended that a data review is undertaken by a suitability qualified and experienced archaeological contractor. As part of the review, the archaeological contractor will identify any data gaps and any specific archaeological objectives to inform the acquisition of geotechnical data. This will include details concerning proposals for further palaeoenvironmental assessment and dating in terms of what should be assessed and how this work should be carried out. Objectives should take account of the specific research objectives identified through the initial geoarchaeological assessment.
- 7.5.1.3 The regulator's archaeological advisor will be consulted on the scope of all further geotechnical surveys and all geotechnical investigations and subsequent geoarchaeological assessment commissioned by the Applicant will be undertaken in accordance with best practice as set out in:
- Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector (Gribble and Leather, 2011);
 - Environmental Archaeology: A Guide to the theory and practice of methods, from sampling and recovery to post-excavation (Historic England, 2011);
 - Geoarchaeology: using earth sciences to understand the archaeological record (Historic England, 2007).
- 7.5.1.4 In planning any further geotechnical surveys, which may be undertaken primarily to meet engineering/design objectives, general provisions should include:
- Micro-siting of borehole/vibrocore locations to avoid recommended AEZs and anomalies of possible archaeological interest;
 - Comparison of the proposed locations to the positions of previously identified paleogeographic features and deposits of archaeological interest to micro-site the proposed locations to ensure that opportunities to obtain samples to inform archaeological interpretation are not missed;
 - Consideration given to the acquisition of second 'archaeology only' cores at specific locations, if required, following advice from the Retained Archaeologist, the geoarchaeological contractor and in consultation with HES.
- 7.5.1.5 During all geotechnical surveys, all operatives will observe the PAD, as set out in paragraphs 7.3.1.1 to 7.3.1.7

7.5.1.6 The Applicant will procure the services of a specialist geoarchaeological contractor, if necessary, to undertake assessment, and, if required, palaeoenvironmental analysis and dating.

Geoarchaeological assessment should consider the interpretations of sub-bottom profiler data assessed by MSDS. Any further sub-bottom profiler data acquired for the Offshore Project will be assessed by a suitably qualified and experienced archaeological contractor for integration with the results of the geotechnical surveys and any subsequent geoarchaeological assessment.

7.5.1.7 The results of any further geoarchaeological assessment of marine geotechnical will be compiled as an archaeological report consistent with best practice on reporting and will form part of the Offshore Project archive (see paragraphs 7.10.1.1 to 7.10.1.137.10.1.13).

7.6 ARCHAEOLOGICAL EXCLUSION ZONES

7.6.1.1 The principal objective of an AEZ is to prevent damage to or disturbance of a wreck, aircraft or features on the seafloor during activities that may cause direct impacts to a receptor. There are 5 AEZs proposed as a result of the geophysical survey. The implemented AEZs will remain for the entirety of the Offshore Project or until further data are acquired (ground truthing, higher resolution geophysical data) that will prompt the re-evaluation of the potential, significance or extents of the identified sites.

7.6.1.2 The implementation, monitoring and modification of AEZs will take place in accordance with the measures specified by The Crown Estate (2021).

7.6.1.3 AEZs preclude development activities from taking place within their boundaries, thereby avoiding significant impacts to assets contained within. The position, extent and design of an AEZ will take into account all available information including geology, hydrology and sediment transport and will extend around the boundaries of the asset rather than around a centre-point within the site. In addition, an AEZ will incorporate a buffer in order to ensure that all material associated with that asset is encapsulated within its boundary, as well as to reduce the risk of unintentional impacts.

7.6.1.4 AEZs can be reduced, enlarged or removed in agreement with the MD-LOT in consultation with their archaeological advisor if further relevant information becomes available.

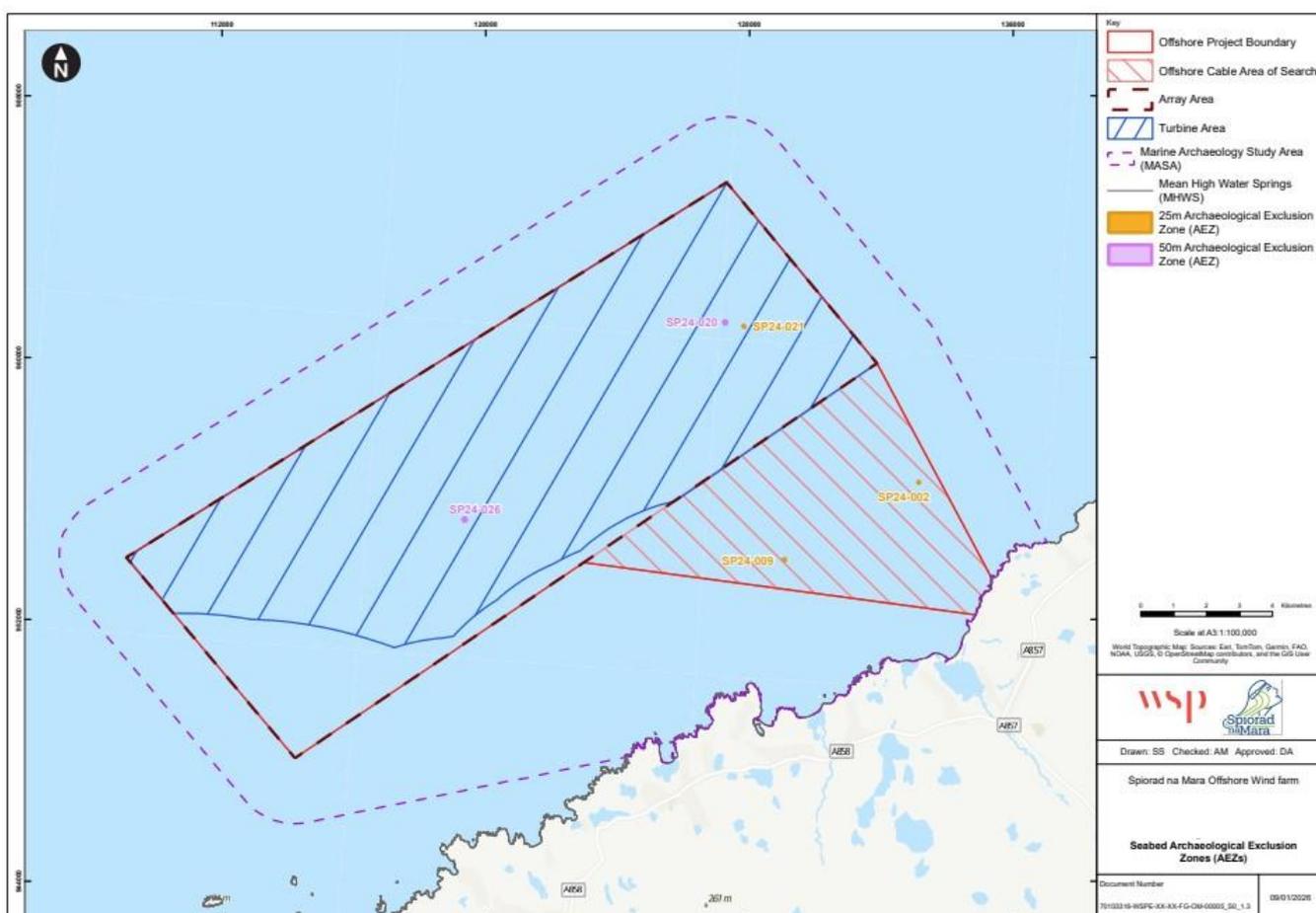
7.6.1.5 The Applicant will ensure that details of the AEZs are supplied to all agents and contractors and will retain responsibility for ensuing adherence to the AEZs throughout the Offshore Project lifespan (pre-construction, construction, operation and decommissioning).

7.6.1.6 Subject to approval by MD-LOT's archaeological advisor, AEZs will be implemented around the anomalies detailed in **Table 7-1** and illustrated on **Plate 7-1**.

Table 7-1 Summary of the recommended AEZs within the Offshore Project for Marine Archaeology and Cultural Heritage

Anomaly Number	Classification	Easting	Northing	AEZ Size
SP24_002	Potential debris	641892.3	6477178.4	25 m radius
SP24_009	Potential debris	638087.4	6474402.9	25 m radius
SP24_020	Potential debris	635544.3	6481415.6	50 m radius
SP24_021	Potential debris	636124.4	6481361.2	25 m radius
SP24_026	Mound	628322.9	6474615.5	50 m radius

Plate 7-1 Seabed Archaeological Exclusion Zones (AEZs)



- 7.6.1.7 It is considered these AEZs are appropriate to ensure robust, but proportional, mitigation from the impacts of development. The agreed AEZs will be the primary means employed to preserve features or remains of archaeological interest or potential in situ.
- 7.6.1.8 The AEZs agreed during the EIA process will be supplied as a GIS shapefile. The Retained Archaeologist will have responsibility for maintaining the live AEZ shapefiles in the Offshore Project GIS. In addition, all documentation required for Offshore Project delivery provided to contractors will include the lists and illustrated locations of AEZs, which will be updated as needed as the Offshore Project develops.

7.7 ARCHAEOLOGICAL INVESTIGATIONS USING DIVERS AND/OR ROVS

- 7.7.1.1 In the advent that identified anomalies will be directly impacted, a diver or ROV survey may be required to determine the nature of the anomaly and its possible archaeological importance. The principal objective of any diver/ROV investigation will be to further establish the archaeological interest of previously unidentified seabed features seen in the geophysical data if required, in order to inform the strategy of avoidance through revisions to the scheme design. Diver and/or ROV surveys will be used when necessary if other means of assessment are not available or sufficient.
- 7.7.1.2 It is possible that the nature and extent of individual anomalies may only be achieved through the use of drop-down cameras or diver/ROV survey. Ground truthing may also be required in order to clarify the extent of a site in order to alter (enlarge, reduce, move or remove) AEZs.
- 7.7.1.3 All ground-truthing that may be required to inform the construction of the Offshore Project's mitigation strategy will be carried out in accordance with best practice outlined by The Crown Estate (2021).
- 7.7.1.4 Diver or ROV-based investigations will take place as required and, where the primary objectives are archaeological, operations will be led by archaeologists. However, it may also be possible to combine such surveys with non-archaeological objectives, for identification of UXO for example.
- 7.7.1.5 In order to maximise the potential benefits of any proposed diver or ROV surveys that are not archaeologically led, the Applicant will seek archaeological input at the planning stage of any such works. Any such survey specification will be informed by previous stages of the Offshore Project, including the Offshore Project EIAR and assessment of any project geophysical data so that archaeological considerations can be taken into account. Following the completion of a diver/ROV survey, all data, including video footage, will be reviewed by an archaeological contractor with appropriate expertise.
- 7.7.1.6 Anomalies, as identified from the archaeological assessment of pre-construction geophysical data (see paragraphs 7.4.1.1 to 7.4.1.3 and 7.6.1.1 to 7.6.1.8), will be selected for further study if they cannot be avoided through micro-siting, or where clarification is required to inform micro-siting in

the final design. A detailed method statement for any archaeological works will be agreed in advance of works commencing with the MD-LOT in consultation with the Archaeological Curator.

- 7.7.1.7 The results of diver/ROV assessment will be compiled as an archaeological report consistent with best practice on reporting and will form part of the Offshore Project archive (see paragraphs 7.10.1.1 to 7.10.1.13).
- 7.7.1.8 As stated above for marine geophysical assessments, in the event of a new discovery, it is important to notify the ROW as soon as possible following the identification of a new wreck site in order to protect against salvage attempts. Procedures for contacting the ROW following the identification of any new wreck sites will be made clear within agreed documentation, including method statements for archaeological investigations using divers and/or ROVs.

7.8 ARCHAEOLOGICAL WATCHING BRIEF

- 7.8.1.1 In the event that archaeological material may be directly impacted and needs to be preserved through record, an archaeological watching brief may be required. The scope and methodology of any archaeological watching brief required will be agreed with the MD-LOT in consultation with the Archaeological Curator and set out through a site-specific method statement or WSI. If areas subject to clearance are considered of medium or high archaeological importance, on board monitoring may be considered necessary to ensure appropriate consideration of archaeological material brought to the surface. In areas of low archaeological importance, any material brought to the surface will be dealt with through the PAD (see paragraphs 7.3.1.1 to 7.3.1.7). The Archaeological Curator will be notified and consulted regarding any archaeological material collected during the works.

7.9 MONITORING

- 7.9.1.1 If monitoring is required, it may comprise:
- Monitoring of the Final Offshore WSI by the Retained Archaeologist in order to ensure that the scheme of investigation is appropriate to the scheme design;
 - Monitoring of archaeological works by the Archaeological Curator, including monitoring of the effectiveness of AEZs;
 - Monitoring during and post-construction, including a conservation programme for finds.
- 7.9.1.2 Any monitoring requirements will be discussed and agreed with MD-LOT's Archaeological Curator.

7.10 ARCHAEOLOGICAL RECORDING, REPORTING, DATA MANAGEMENT AND ARCHIVING

- 7.10.1.1 Each required archaeological investigation that is undertaken will be accompanied by written reports pursuant to the requirements of those works and demonstrating appropriate planning, recording and data management and archiving and public dissemination of results as needed.
- 7.10.1.2 For all aspects of recording, reporting, data management and archiving, the Applicant will adhere to industry standards and guidance.
- 7.10.1.3 Once agreed, the methodology for each required archaeological investigation will be set out in a method statement prepared under the requirements of the Final Offshore WSI and appended to it. Each method statement will be agreed with the Archaeological Curator prior to works commencing.
- 7.10.1.4 Each archaeological report will satisfy the method statement requirements for the investigation and will present the Offshore Project information in sufficient detail to allow interpretation. In accordance with the ClfA standards and guidance (2022 and 2020), this will include as a minimum, the following:
- Non-technical summary;
 - The Offshore Project design or appropriate reference to it;
 - The aims, objectives and methods used, including any departure from the Offshore Project design;
 - Results, referring to the research aims in the Offshore Project design and including research implications;
 - Illustrations, plans and essential technical and supporting detail, with accurate spatial information sufficient to locate the areas of investigation in the future;
 - Conclusions, including a confidence rating on techniques used, and any recommendations for further work that might improve that confidence;
 - A justified Post Excavation Research Design including research objectives for any mitigation excavations, and post excavation analysis;
 - References and bibliography, list of all sources used. The final destination of the archive (records and finds) will be noted in the report along with the site code assigned by the relevant Offshore Project archive repository;
 - Archive locations (pre- and post-deposition if known);
 - Copyright.
- 7.10.1.5 Each archaeological report will be submitted in draft to the Retained Archaeologist for submission to the Applicant. If the report is prepared by the Retained Archaeologist, it will be submitted directly to the Applicant. Where appropriate, further desk-based and/or archival research will be undertaken as part of the reporting process to meet the policy provisions set out in section 36

("s.36 consent") of The Electricity Act 1989 ("the 1989 Act") and marine licence under the Marine (Scotland) Act 2010).

7.10.1.6 The need for any post-fieldwork assessment will be determined through examination of the results of any archaeological investigations undertaken. Decisions regarding the scope of post-fieldwork assessment will be made by agreement between the Applicant and the Archaeological Curator following submission of investigation reports and based on the possible importance of the results in terms of their contribution to archaeological knowledge, understanding or methodological development.

7.10.1.7 If post-fieldwork assessment is warranted, the assessment phase may include (but is not limited to) the following elements:

- The conservation of appropriate materials, including the X-raying of metalwork;
- The spot-dating of all pottery from any investigation. This will be corroborated by the scanning of other categories of material;
- The preparation of site matrices with supporting lists of contexts by type, by spot-dated phase, and by structural grouping supported by appropriate scaled plans;
- An assessment statement will be prepared for each category of material, including reference to quantity, provenance, range and variety, condition and existence of other primary sources;
- A statement of potential for each material category and for the data set as a whole will be prepared, including specific questions that can be answered and the potential value of the data to local, regional and national research agendas.

7.10.1.8 On the basis of post-fieldwork assessment, and as agreed by the Archaeological Curator, mitigation requirements will be satisfied by carrying out analysis and reporting of the post-fieldwork assessment. If appropriate, this may include publication of important results in a recognised peer-reviewed journal or as a monograph.

7.10.1.9 On completion of archaeological works relating to construction of the scheme, an overarching report on the archaeology of the scheme will be prepared and submitted to MD-LOT and HES to a timetable to be agreed with the Applicant, the regulator and the Archaeological Curator. The overarching report need not repeat the details contained in each preceding report, but should serve as an index to, and summary of, the archaeological investigations as a whole.

7.10.1.10 It is accepted practice to keep project archives, including written, drawn, photographic and artefactual elements (together with a summary of the contents of the archive) together wherever possible and to deposit them in appropriate receiving institutions once their contents are in the public domain. Archives will be developed in line with guidance including:

- Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (CIfA, 2020a);

- Archaeological Archives. A guide to best practice in creation, compilation, transfer and curation (Archaeological Archives Forum, 2011);
- Standards in the Museum Care of Archaeological Collections (Museums and Galleries Commission, 1992);
- Towards an Accessible Archive. The Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland, Scotland and Wales (Society of Museum Archaeologists, 1995).

- 7.10.1.11 The Archaeological Curator and the archaeological contractor will agree with the receiving institution a policy for the selection, retention and disposal of excavated material, and confirm requirements in respect of the format, presentation and packaging of archive records and materials, and will notify the receiving institution in advance of any fieldwork.
- 7.10.1.12 In Scotland/*Alba*, the National record of the Historic Environment (Canmore) and the Historic Marine Protected Areas maintained by HES are the repositories for fieldwork and archaeological records. These databases operate a policy for the selection of records relating to sites of national importance. On completion of the scheme construction, the Applicant or their agents will produce an OASIS form for any completed and agreed archaeological reports produced as a result of the Final OOWSI and ensure that a copy is submitted as a PDF file to Canmore and HES, to notify the relevant archaeological curators of compliance with the Final Offshore WSI and potential deemed Marine Licence conditions.
- 7.10.1.13 In consultation with the Applicant and the Archaeological Curator, the Retained Archaeologist will ensure the results of important archaeological investigations undertaken in connection with the scheme will be published in an integrated manner. Publication media and all publication matters will be discussed and agreed in advance with the Applicant and Archaeological Curator.

8 HEALTH AND SAFETY

8.1 INTRODUCTION

8.1.1.1 Health and Safety will take priority over all other requirements. A conditional aspect of all archaeological work is both safe access to the area of work and a safe working environment. The Offshore Project will be carried out in accordance with safe working practices.

8.1.2 RISK ASSESSMENT AND METHODOLOGY STATEMENT (RAMS)

8.1.2.1 The archaeological fieldwork subcontractor will produce a site-specific Risk Assessment and Methodology Statement (RAMS) to cover the onsite fieldwork and will supply a copy of the company's Health and Safety Policy. These will be reviewed by the consultant to ensure that the policy and measures are appropriate.

8.1.2.2 The archaeological fieldwork subcontractor's RAMS will:

- Be clear, concise, site-specific, and without generic text for hazards that do not apply or mitigation that is not applicable;
- Include tabulation of site-specific hazards, risk grading and mitigation measures;
- Include site manager's contact details, along with a deputy;
- Include an emergency action plan, with an address and route map to the closest Accident and Emergency.

8.1.2.3 Subcontractor RAMS will be reviewed by an appropriately qualified and experienced member of staff (e.g. Project Manager), ideally with final approval by the H&S Manager/Senior Manager prior to review by the consultant. The RAMS will have been read, understood, and signed by all staff attending the site before any fieldwork commences.

8.1.3 PERSONAL PROTECTION EQUIPMENT (PPE)

8.1.3.1 Staff present on site will be required to wear the appropriate PPE, as identified in the RAMS.

8.2 NON-ARCHAEOLOGICAL CONSTRAINTS

8.2.1 UNEXPLODED ORDNANCE (UXO)

8.2.1.1 In the event that any ordnance is discovered it will be treated with extreme care as it may not be inert. Guidelines on addressing UXO discoveries provided to contractors by the Applicant must be followed prior to any recording of items for archaeological purposes. The responsibility for all aspects of Health and Safety in respect of UXO will be the responsibility of the Applicant.

8.2.1.2 To ensure that the UXO risk is reduced to As Low as Reasonably Practicable, industry good practice is to undertake a marine UXO geophysical survey so that the risk can be sufficiently identified. UXO awareness briefings will be given to site staff to ensure that in the unlikely event that suspect UXO is discovered, appropriate action can be taken with care and reduced risk.

9 GLOSSARY OF TERMS AND ABBREVIATIONS

9.1.1.1 A list of key terms and acronyms used in this OOWSI are provided in **Table 9-1** and **Table 9-2**.

Table 9-1 Acronyms and abbreviations

Term	Definition
AEZ	Archaeological Exclusion Zone
BCE	Before the Common Era
BGS	British Geological Survey
BH	borehole
CiFA	Chartered Institute for Archaeologists
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ES	Environmental Statement
INNS	Invasive Non-Native Species
HER	Historic Environment Record
HES	Historic Environment Scotland
JNAPC	Joint Nautical Archaeology Policy Committee
LAT	Lowest Astronomical Tide
LGM	the Last Glacial Maximum
MASA	Marine Archaeology Study Area
MBES	Multibeam Bathymetry
MD-LOT	Marine Directorate Licencing Operations Team
MHWS	Mean High Water Springs
MS	Method Statement
MSL	Mean Sea Level
NPS	National Policy Statement
OCAS	Offshore Cable Area of Search
OD	Ordnance Datum
OOWSI	Outline Offshore Written Scheme of Investigation
OWF	Offshore Wind Farm
PAD	Protocol for Archaeological Discoveries
PPE	Personal Protection Equipment
RAMS	Risk Assessment and Methodology Statement
ROV	Remotely Operated Vehicle
ROW	Receiver of Wreck
RSL	Relative Sea Level
SBP	Sub-bottom Profiler
SIRFA	Scotland's Island Research Framework for Archaeology
SSEN	Scottish and Southern Electricity Networks
SSS	Sidescan Sonar
TEZ	Temporary Exclusion Zone

Term	Definition
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
UHRS	Ultra High Resolution Seismics
USBL	Ultra Short Baseline
UXO	Unexploded Ordnance
WSI	Written Scheme of Investigation

Table 9-2 Glossary

Term	Meaning
the Applicant	Spiorad na Mara Limited (the Project owner).
Array Area	The offshore area within which the offshore wind turbine generators (WTGs), associated foundations, Offshore Cables, and Offshore Substation Platform (OSP) (if required), will be located. This area encompasses the Turbine Area that will contain all above water surface infrastructure (WTGs / OSP) and an additional area within which further below water infrastructure (foundations and cables) may also be located.
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment Report (EIAR)	The Environmental Impact Assessment Report (EIAR) prepared to assess the likely significant effects of the Project on the environment.
Embedded or 'Designed-in' Mitigation	Mitigation measures to avoid or reduce environmental effects that are directly incorporated into the preferred design for the Project. This can include standard practice in accordance with or without guidance. Embedded mitigation is considered as part of the impact assessment, before effect significance is identified.
Impact	Change that is caused by an action; for example, foundation installation (action) during construction which results in habitat loss (impact).
Offshore Cable Area of Search (OCAS)	The area within which the offshore electrical and communication cables between the Array Area and Landfall up to Mean High Water Springs (MHWS) will be located.
Offshore Project	The offshore components of the Spiorad na Mara offshore wind farm (the Project) located seaward of Mean High Water Springs (MHWS).
Project	The Spiorad na Mara offshore wind farm development. This term describes the whole development, including all offshore and onshore components.
Study Areas	Study Areas are determined for each technical discipline and are described within each technical chapter.

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