

# Sea Link

## Volume 7: Other Documents

Document Number 7.5.5 Outline Offshore Overarching Written Scheme of Investigation

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## Version History

<u>Date</u>	<u>Issue</u>	<u>Status</u>	<u>Description / Changes</u>
<u>March 2025</u>	<u>A</u>	<u>Final</u>	<u>For DCO submission</u>
<u>October 2025</u>	<u>B</u>	<u>Final</u>	<u>Update following Rule 6 Errata List</u>

# Executive Summary

- Ex1.1.1 The Sea Link Project (the ‘Proposed Project’) is a proposal by National Grid Electricity Transmission plc to reinforce the transmission network in the South East and East Anglia, whereby Sizewell, Suffolk and Pegwell Bay, Kent will be connected by High Voltage Direct Current (HVDC) offshore transmission link.
- Ex1.1.2 This document is the outline Offshore Overarching Written Scheme of Investigation (OWSI) relating to the marine, coastal and intertidal heritage assets that may be impacted by the Proposed Project. This considers heritage assets within the marine environment and up to the Mean High Water Spring line.
- Ex1.1.3 The outline Offshore OWSI comprises a summary of the known and potential archaeological resource that may be impacted along with methodologies, procedures and expectations of the individual mitigation measures recommended to protect these assets from significant environmental effects caused by the Proposed Project. The overall aim is to present measures that, when implemented, prevent, reduce and offset impact to heritage assets.
- Ex1.1.4 The outline Offshore OWSI forms Control and Management Measure 20, one of the measures used to manage impacts that could affect marine archaeological receptors, and it is a requirement of this commitment that the contents of the OWSI are adhered to for the duration of the Proposed Project. Although the outline Offshore OWSI is not considered a mitigation measure in itself, the measures that are detailed within it are often secured through planning conditions requiring the implementation of a WSI (The Crown Estate, 2021, p. 7).
- Ex1.1.5 Once agreed by the relevant archaeological curator(s), Historic England, via the relevant Regulator, the Marine Management Organisation, and prior to any works commencing on the Proposed Project, the final Offshore OWSI will be implemented by all relevant contractors for the lifetime of the Proposed Project (pre-construction, construction, operation and maintenance, and decommissioning). Furthermore, the Offshore OWSI is an umbrella document for any planned survey, investigation and assessment required for the Proposed Project, supported, as required, by activity-specific Archaeological Method Statements.



# 1. Outline Offshore Overarching Written Scheme of Investigation

## 1.1 Introduction

### Project Background

- 1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the South East and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe.
- 1.1.2 National Grid owns, builds and maintains the electricity transmission network in England and Wales. Under the Electricity Act 1989, National Grid holds a transmission licence under which it is required to develop and maintain an efficient, coordinated, and economic electricity transmission system.
- 1.1.3 This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400kV overhead line close to Richborough in Kent.
- 1.1.4 National Grid is also required, under Section 38 of the Electricity Act 1989, to comply with the provisions of Schedule 9 of the Act. Schedule 9 requires licence holders, in the formulation of proposals to transmit electricity, to:
- 1.1.5 *Schedule 9(1)(a) '...have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest;' and*
- 1.1.6 *Schedule 9(1)(b) '...do what [it] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects'.*
- 1.1.7 The Proposed Project is proposed to reinforce the transmission system in the South East of England and East Anglia. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400kV overhead line close to Richborough in Kent.
- 1.1.8 This updated outline offshore archaeological Overarching Written Scheme of Investigation (OWSI) follows on from the updated marine archaeological desk-based assessment (**Application Document 6.3.4.6.A ES Appendix 4.6.A Marine Archaeological Technical Report**). Both documents are appended to **Application Document 6.2.4.6 Part 4 Marine Chapter 6 Marine Archaeology** of the Environmental Statement (ES).

- 1.1.9 This outline offshore archaeological OWSI forms Control and Management Measure 20, one of the mitigation measures used to manage impacts that could affect marine archaeological receptors.
- 1.1.10 The outline Offshore OWSI will be implemented when it has been agreed with the Archaeological Curator(s) via the Regulator and prior to any works commencing on the Proposed Project.
- 1.1.11 This document is supported by the following figures which are in Appendix A:
- **Figure 7.5.5.1 Marine archaeological study area;**
  - **Figure 7.5.5.2 Palaeogeographic receptors of archaeological potential and geoarchaeological priority of vibrocores;**
  - **Figure 7.5.5.3 Seabed receptors of archaeological potential; and**
  - **Figure 7.5.5.4 Coastal and intertidal receptors of archaeological potential.**

## 1.2 The Proposed Project

- 1.2.1 The Proposed Project would comprise the following elements:

### The Suffolk Onshore Scheme

- A connection from the existing transmission network via Friston Substation, including the substation itself. Friston Substation already has development consent as part of other third-party projects. If Friston Substation has already been constructed under another consent, only a connection into the substation would be constructed as part of the Proposed Project.
- A high voltage alternating current (HVAC) underground cable of approximately 1.9 km in length between the proposed Friston Substation and a proposed converter station (below).
- A 2 GW high voltage direct current (HVDC) converter station (including permanent access from the B1121 and a new bridge over the River Fromus) up to 26 m high plus external equipment (such as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, similar small scale operational plant, or other roof treatment) near Saxmundham.
- A HVDC underground cable connection of approximately 10 km in length between the proposed converter station near Saxmundham, and a transition joint bay (TJB) approximately 900 m inshore from a landfall point (below) where the cable transitions from onshore to offshore technology.
- A landfall on the Suffolk coast (between Aldeburgh and Thorpeness).

### The Offshore Scheme:

- Approximately 122 km of subsea HVDC cable, running between the Suffolk landfall location (between Aldeburgh and Thorpeness), and the Kent landfall location at Pegwell Bay.

## The Kent Onshore Scheme:

- A landfall point on the Kent coast at Pegwell Bay.
- A TJB approximately 800 m inshore to transition from offshore HVDC cable to onshore HVDC cable, before continuing underground for approximately 1.7 km to a new converter station (below).
- A 2 GW HVDC converter station (including a new permanent access off the A256), up to 28 m high plus external equipment such as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, and similar small scale operational plant near Minster. A new substation would be located immediately adjacent.
- Removal of approximately 2.2 km of existing HVAC overhead line, and installation of two sections of new HVAC overhead line, together totalling approximately 3.5 km, each connecting from the substation near Minster and the existing Richborough to Canterbury overhead line.

1.2.2 The Proposed Project also includes modifications to sections of existing overhead lines in Suffolk (only if Friston Substation is not built pursuant to another consent) and Kent, diversions of third-party assets, and land drainage from the construction and operational footprint. It also includes opportunities for environmental mitigation and compensation. The construction phase will involve various temporary construction activities including overhead line diversions, use of temporary towers or masts, working areas for construction equipment and machinery, site offices, parking spaces, storage, accesses, bellmouths, and haul roads, as well as watercourse crossings and the diversion of public rights of way (PRoWs) and other ancillary operations.

## 1.3 Scope of Document

1.3.1 This outline Offshore OWSI sets out the aims of offshore investigations, and the methodologies and standards that will be employed by the Client and Retained Archaeologist to implement the mitigation strategy set out in the ES (**Application Document 6.2.4.6 Part 4 Marine Chapter 6 Marine Archaeology**). In format and content, it conforms to current best practice outlined in the Joint Nautical Archaeology Policy Committee Code of Practice for Development (Joint Nautical Archaeology Policy Committee, 2006) and the relevant guidance from the Chartered Institute for Archaeologists (CIfA) (2020a; 2020b; 2020c; Standard and guidance for the collection, documentation, conservation and research of archaeological materials, 2020d), as applicable. There is currently no OWSI guidance specific to subsea cables and therefore the most relevant offshore guidance will be used, for example, Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021).

1.3.2 This document will be submitted to the Archaeological Curator(s) for approval, prior to the commencement of any investigative work. If elements of the outline offshore archaeological OWSI need to be discussed with relevant external stakeholders, including the Receiver of Wreck or Ministry of Defence, then this should also occur prior to the outline Offshore OWSI being approved. This could include methodologies for recovering and reporting material or development works that could impact a protected site under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) or the Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35).



## 1.4 The Archaeological Assessment Areas

### Co-ordinate System

- 1.4.1 The datasets used in this assessment have been presented in Universal Transverse Mercator (UTM) Zone 31 North projected from a European Terrestrial Reference System (ETRS) 1989 datum.

### Archaeological Assessment Area (Study Area)

- 1.4.2 This outline OWSI addresses the offshore elements of the current Proposed Project. The boundary of the study area defines the area where any potential impact on marine archaeological receptors may occur.
- 1.4.3 The study area comprises the extent of the Offshore Scheme as defined by the Order Limits shapefile (supplied 10 June 2024), also used in the ES chapter (**Application Document 6.2.4.6 Part 4 Offshore Chapter 6 Marine Archaeology**) up to the Mean High Water Spring (MWHS) mark (**Figure 7.5.5.1 Marine archaeological study area**).
- 1.4.4 Marine archaeological sites identified in the geophysical survey data that are located outside the study area, but their linear/boundary extents or their associated mitigation (in the form of Archaeological Exclusion Zones (AEZs)) intersect with the study area, have also been included in this outline OWSI. Sites that are located extremely close to the boundary of the study area (usually within 10 m) have also been included where they could represent buried ferrous material and their dimensions are currently unknown or unconfirmed.

### Ecological and Other Constraints

- 1.4.5 The coast between Thorpeness and Aldeburgh is designated as a National Landscape, Site of Special Scientific Interest, a Special Protection Area, a Heritage Coast and a Local Nature Reserve.
- 1.4.6 Pegwell Bay is designated as an ecologically protected area. It is a Site of Special Scientific Interest, a National Nature Reserve, a Special Area of Conservation, a Special Protection Area and a Ramsar Site.
- 1.4.7 Described as a large, dynamic and constantly changing area of sand and coarse sediments that are regularly exposed at low tide, the Goodwin Sands has been designated as a Marine Conservation Zone (MCZ) (Department for Environment, Food and Rural Affairs, 2019). Following designation, some activities on the Goodwin Sands may need additional management regulated by the Marine Management Organisation (MMO) (*ibid.*). The boundary of the Order Limits borders the edge of the Goodwin Sands MCZ and no impact will occur inside the MCZ.
- 1.4.8 The cable routes for Thanet Offshore Wind Farm, East Anglia One Offshore Wind Farm and numerous other power and telecommunications cables, for instance NEMO Link Interconnector, are located within or traversing the Proposed Project's Offshore Scheme Order Limits. The cable route for East Anglia Three Offshore Wind Farm, although unconfirmed at present, will also traverse the Proposed Project's Order Limits.

## 1.5 Aims and Objectives

### Aims

- 1.5.1 The aim of this outline Offshore OWSI is to put in place the offshore archaeological mitigation as set out in the ES chapter relating to marine archaeology (**Application Document 6.2.4.6 Part 4 Marine Chapter 6 Marine Archaeology**) for agreement in principle with the Archaeological Curator(s), Historic England, via the Regulator, the MMO and the respective local authority curatorial bodies that serve Suffolk and Kent.

### Objectives

- 1.5.2 The objectives of this offshore archaeological OWSI are as follows:
- to fulfil the requirements of the Archaeological Curator(s) in respect of archaeological monitoring and mitigation works associated with the Proposed Project;
  - to set out the respective responsibilities of the Client, main contractors and archaeological contractors/consultants prior to and during installation, to include contact details and formal lines of communication between the parties and with the Archaeological Curator
  - to provide the position and extent of AEZs and Temporary Exclusion Zones (TEZs) that may be required, and to establish methods for their monitoring, modification and/or removal in the future;
  - to ensure that any further geophysical and geotechnical investigations associated with the project are subject to archaeological input, review, recording and sampling;
  - to ensure that any Remotely Operated Vehicle (ROV) and/or diver surveys associated with the project are subject to archaeological input and that any relevant data produced is archaeologically assessed;
  - to propose measures for the mitigation of unexpected archaeological remains encountered during further survey work or construction work associated with the Proposed Project, in the form of a project-specific Protocol for Archaeological Discoveries;
  - to set out methodologies for post-construction monitoring; and
  - to establish the reporting and archiving requirements for the archaeological works undertaken during construction and post-construction monitoring.
- 1.5.3 This document will be updated as necessary to take account of any changes in the design of the Proposed Project and/or changes in understanding of the archaeological baseline.

### Addressing Questions from the Research Agendas

- 1.5.4 Data gathered during the pre-construction and construction works have the potential to inform research questions that as those laid out in regional Research Agendas. The two main Research Frameworks that apply to the Proposed Project are A Maritime Archaeological Research Agenda for England (Maritime Archaeological Research Framework, 2023) and The North Sea Prehistory Research and Management Framework (Landward Research Ltd and Wessex Archaeology, 2024).

- 1.5.5 Themes of areas of research may inform survey designs and will be addressed in the results of any reports and are presented in Table 1.1.

**Table 1.1 Themes/areas for future research from a maritime Research Agenda**

Research Agenda	Theme/Questions
A Maritime Archaeological Research Agenda for England (Maritime Archaeological Research Framework, 2023)	<p>Palaeolithic:</p> <p>Improve the understanding of the chronology and nature of Pleistocene landscape change (sea level-induces variations in coastal geography and wider palaeoenvironmental fluctuations).</p> <p>Determining the environmental productivity of the Palaeolithic landscape, including now-submerged coastlines and terrestrial areas.</p> <p>Understand the extent to which Palaeolithic populations used coastal and marine resources, and if so, the nature of the adaptation and how it impacts on our understanding of British Palaeolithic population history.</p> <p>Identify whether British Palaeolithic populations were seafarers and, if so, when this began and what strategies/technologies they employed. This will better identify a Palaeolithic maritime network.</p> <p>Identify distinct maritime identities and use of maritime spaces to better understand societies and how space was transformed throughout the Palaeolithic.</p>
	<p>Mesolithic:</p> <p>Better understanding of coastal evolution to better assess the interplay of the coast and Mesolithic societies, and ideally obtained by detailed local sequences.</p> <p>Understand the nature and extent of exploitation of coastal resources and the impact this had on settlement.</p> <p>Improve our understanding of Mesolithic seafaring in England, through direct evidence.</p> <p>The nature and extent of the following marine networks are essential for adding to the European context: extent to which marine mammals move inland and the extent to which the sea facilitates contact between adjacent islands/mainlands.</p> <p>Consider the meaning of maritime identity for Mesolithic communities and their perceptions of maritime space.</p>
	<p>Neolithic and Early Bronze Age:</p> <p>Better understanding of coastal evolution relating to relative sea-level change, variation in marine conditions, and the need for integrated sea-level palaeohydrological and environmental modelling work.</p> <p>There are many questions relating to settlement and subsistence which would benefit from further research (activity and settlement in the coastal zone, and the nature of offshore deposits and finds).</p>

Research Agenda	Theme/Questions
	<p>The research base for vessels is limited. Therefore, seafaring questions relate to being able to predict areas of high potential for the presence of Neolithic and Early Bronze Age craft and what are the most effective research methods to record and contextualise such discoveries.</p> <p>With regards maritime networks, archaeological science has provided important contributions on the origin of domesticated animals and plants, could techniques be extending to other domesticates or people? Evidence on early maritime networks can be improved by further research into the similarities in monuments in Britain, Ireland and Europe. And why did Britain and Ireland lose connection with Europe after c.3500 BC?</p> <hr/> <p>Middle Bronze Age and Pre-Roman Iron Age:</p> <p>Further studies are required to understand the specifics of sea-level change and the topography of the coastline, and how environmental conditions changed over these periods and those these changes impacted seafaring.</p> <p>Better understanding maritime settlement and exploitation by researching the distribution and density of settlement and activities on the coast, including seasonal visitations to the coast.</p> <p>There is virtually no primary evidence for seagoing boats or ships from the Middle Bronze Age, Late Bronze Age or Iron Age. The only evidence for shipwrecks is the well-known assemblages of bronze objects from Dover and Salcombe. In this context any new discoveries of ships, parts of ships, possible wrecks or lost cargoes, and representations of vessels are very significant. Due to the extremely scarce evidence for later prehistoric vessels, any interpretation of such evidence needs to be approached with care.</p> <p>Incorporate the specifics of seafaring into interpretations and models of trade and exchange, especially at a regional and local level.</p> <hr/> <p>Roman:</p> <p>Better understanding of the Roman coastline with the development of new regional coastal morphology models, and land reclamation.</p> <p>Harbours, ports and landing places - much past research has focused on a few particular areas and there is a need both to integrate these studies at regional scales and to address other potential sites.</p> <p>The lack of archaeological evidence of vessels is a key issue for this period. Questions about seafaring include: can we identify potential Roman shipwreck sites and associated material, how did seafaring technologies relate to earlier periods, and can Roman practices of seafaring and seafaring routes be better understood?</p> <p>With regards maritime identities and perceptions of maritime space, themes include seascapes and identity, shipboard space and identity and religion.</p>

Research Agenda	Theme/Questions
	<p>Early medieval:</p> <p>Identify more landing places and nuance the current understanding of them. Those that are still undefined (Sandwich, Fordwich) offer attractive new research targets. Research whether the early beach-markets being defined in Scandinavia and the settlement patterns in the Frisian mudflats provide useful comparative examples.</p> <p>Expand our understanding of seafaring without more well-preserved and well-studied boats (inland and seagoing), perhaps with targeted surveys of potential landing places</p> <p>ethnoarchaeological research and experimental archaeology.</p>
	<p>High medieval to post-medieval:</p> <p>Questions relating to coastal change include the following themes: environmental change, and coastal management and change.</p> <p>Socio-economic, environmental and political factors had a range of identifiable effects on coastal industries and the maritime landscapes. However, the material evidence of the interplay between these factors requires further study and there is a need for multi- disciplinary approaches to many of these questions.</p> <p>Themes relating to seafaring include vessel traditions and technology, shipbuilding, gun founding and life on-board.</p>
	<p>Early modern and industrial:</p> <p>Address coastal industries, fisheries, seaborne trade and settlement in combination, at local, regional, and national scales, and examine how these inter-dependent systems were affected by wars, growing international trade, and the social transformations of the period.</p> <p>There is a need to address coastal industries, fisheries, seaborne trade, and settlement in combination, at local, regional, and national scales, and to examine how these inter-dependent systems were affected by wars, growing international trade, and the social transformations of the period.</p> <p>There is a need for more systematic regional and national studies driven by research questions which connect shipbuilding industries and ship/boat design to the social, economic, and political world within which they occurred.</p> <p>The theme of maritime identities and perceptions of maritime space is potentially significant to contemporary ‘modern’ Britain and the questions it raises of transnational identities and migrant communities require further research.</p>
	<p>Modern:</p> <p>Research how high-resolution archaeological studies of sea-level change over the modern period help to improve our overall understanding of the processes involved and understand the impact on coastal communities of the decline in coastal trade.</p>



Research Agenda	Theme/Questions
	<p>Better understand how to use wreck sites and associated assemblages to cast light on the lives of those involved in coastal trade.</p> <p>With regards seafaring, what was the impact of the world wars on the shipbuilding industry and communities.</p> <p>Research to what extent coastal defences and dredging has helped to reshape the English coastline.</p> <p>With regards maritime identities and perceptions of maritime space, how have those perceptions changes over the modern period and what impact has our changing relationship to the sea had on our engagement with maritime archaeology of this period.</p>
North Sea Prehistory Research and Management Framework (Landward Research Ltd and Wessex Archaeology, 2024)	<p>The following overarching direct archaeological research questions have been presented in the Research Agenda:</p> <p>What prehistoric human groups were active in the region?</p> <p>Where was there prehistoric human activity in the region?</p> <p>What are the chronologies for prehistoric human occupation?</p> <p>What activities and behaviours are reflected in the prehistoric archaeological records?</p> <p>What was the climatic, landscape and environmental context of prehistoric human activity?</p> <p>Further research questions have been posed to understand impacts to the archaeological resource and the manner in which the resource is interacted with, as follows:</p> <p>What are the threats and opportunities facing the sector?</p> <p>How can we improve investigation and understanding of the archaeological resource?</p> <p>How can understanding skills gaps future-proof the sector?</p> <p>How can our understanding of prehistory and past environments deliver benefits to individuals and communities?</p>

## 1.6 Roles, Responsibilities and Communication

### Schedule

- 1.6.1 Mitigation measures required to inform the final engineering design for the Proposed Project must be undertaken, completed and reported in time to inform the design. Any Method Statements produced for works must be submitted to the relevant Archaeological Curator(s): Historic England's Marine Planning Unit for marine works and the respective local authority curatorial bodies that serve Suffolk and Kent for works in the coastal and intertidal zone.
- 1.6.2 Sufficient time must be provided for the curator(s) to receive and address comments prior to any works commencing. With regards to Historic England, at least twenty working days from the date of submission is the recommended time required for such documents to be reviewed and comments supplied.

## Client

- 1.6.3 The Client will be responsible for implementing this outline Offshore OWSI and the mitigation measures, such as AEZs.
- 1.6.4 After the Development Consent Order (DCO) has been granted, the Client and/or their representative will commission a Retained Archaeologist during the pre-construction, construction, operations and maintenance and decommissioning phases of the Proposed Project.
- 1.6.5 The Client and/or their representative will consult the Retained Archaeologist during the planning stages for any further work.
- 1.6.6 The Client and/or their representative will commission Archaeological Method Statements for works that may impact the seabed, prior to such works being undertaken.
- 1.6.7 The Client and/or their appointed representatives or any archaeological body they may appoint to manage the implementation of the outline offshore archaeological OWSI, will seek curatorial advice from the Archaeological Curator(s) as appropriate.
- 1.6.8 Interaction with the Archaeological Curator(s) will be administered by the Client and/or their appointed representatives with advice where appropriate through the Retained Archaeologist. Should a new site of archaeological importance be discovered during construction, the Archaeological Curator(s) will be contacted immediately.
- 1.6.9 The Client and/or their appointed representatives will be responsible for administering the obligations of the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) with specific regard to reports of wreck and salvage and will ensure that reports are dealt with accordingly. The Client and/or their appointed representatives will ensure that recovered material identified as 'wreck' must be reported to the Receiver of Wreck, part of the Maritime Coastguard Agency, within 28 days of discovery. The Client and/or their representative will be responsible for the submission of this report, a legal obligation under the Merchant Shipping Act 1995 (*ibid.*) and all correspondence. If recovered material is held by the Retained Archaeologist, it is essential they are included in all correspondence with the Receiver of Wreck and are aware of any updates or changes to the finds reports (commonly known as droits) associated with the material. The Client and/or their appointed representatives will be responsible for ensuring the legal obligations associated with the droits are undertaken.
- 1.6.10 The Client and/or their representative will ensure that the Retained Archaeologist is provided with all relevant project datasets, to ensure that they are in an informed position to advise the project team. This is particularly important between the planning and construction phase, and at any stage if the Retained Archaeologist changes, to ensure consistency.
- 1.6.11 Other offshore archaeological services will be undertaken in the event that they are applicable and agreed in advance with the Client (e.g., archaeological assessments of survey data) and planned and delivered through bespoke Method Statements if required.
- 1.6.12 The Client and/or their appointed representatives will ensure that Contractors make project personnel aware of this outline offshore archaeological OWSI, any AEZs in force, and the bespoke Protocol for Archaeological Discoveries.

## Retained Archaeologist

- 1.6.13 The Retained Archaeologist will oversee archaeological mitigation, as required, and will implement the outline offshore archaeological OWSI, providing consistency throughout the Proposed Project.
- 1.6.14 The Retained Archaeologist, or suitable alternative, will produce Archaeological Method Statements for works, as appropriate.
- 1.6.15 The Retained Archaeologist will act as the specialist advisor for any unexpected archaeological discoveries. The Retained Archaeologist will cover the administration of the reporting of discoveries made by the client and/or their representative and will provide immediate actions, including recording, handling and storage, and introduction of measures to prevent or reduce damage if the presence of a significant archaeological site is suspected.
- 1.6.16 The Retained Archaeologist will ensure any unexpected discoveries of archaeological material are assessed, as per the Protocol (see Annex 1) and reported to the relevant Archaeological Curator(s) and stakeholders. The Retained Archaeologist will also be responsible for providing Protocol awareness training to contractors to facilitate the application of the Protocol.
- 1.6.17 The Retained Archaeologist will produce reports for approval by the Client and/or their representative and the Archaeological Curator(s).
- 1.6.18 The Retained Archaeologist will also prepare project archives in consultation with the appropriate repository/museum.

## Archaeological Curator(s)

- 1.6.19 The Proposed Project is located entirely within the 12 nm Territorial Water limit. From the MHWS mark to the 12 nm limit, the relevant Archaeological Curator is Historic England's Marine Planning Unit, with specialist advice provided by the Historic England's East of England and South East Science Advisors.
- 1.6.20 Above the Mean Low Water Mark (MLWM), the relevant Archaeological Curators are Suffolk County Council and Kent County Council. The Senior Archaeological Officers at Suffolk County Council Archaeological Service and Kent County Council Archaeological Service will be contacted.
- 1.6.21 Method Statements for archaeological works will be submitted to the relevant Archaeological Curator(s) for review and comments at least twenty working days prior to the planned commencement of surveys/works, to allow for sufficient time for the review and any amendments to be completed and agreed.

## Other Key Stakeholders

### Receiver of Wreck

- 1.6.22 Material identified as 'wreck' that has either been recovered within UK territorial waters or brought into UK territorial waters must be reported to the Receiver of Wreck under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21). The Receiver of Wreck is located within the Maritime Coastguard Agency and works with other government departments and heritage organisations.

- 1.6.23 Wreck material is reported to the Receiver of Wreck by completing a 'Report of wreck and salvage' form (MSF 6200), available via their website, or by using their online reporting system.
- 1.6.24 The Receiver of Wreck's contact details are as follows:
- The Receiver of Wreck, Maritime & Coastguard Agency, Spring Place, 105 Commercial Road, Southampton, SO15 1EG. Email: [row@mcga.gov.uk](mailto:row@mcga.gov.uk), Tel: 0203 817 2575.
- 1.6.25 Further details about how to manage discoveries of wreck material can be found in section 1.11.

## Ministry of Defence

- 1.6.26 Under the Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35), any aircraft that crashed while in military service are automatically protected. Therefore, based on the precautionary principal, all finds, or sites of aircraft should be reported to the Joint Casualty and Compassionate Centre (JCCC) of the Ministry of Defence, unless it can be proven without a doubt that the aircraft material is non-military. In any case, all finds of aircraft material should also be reported to the Receiver of Wreck.
- 1.6.27 Further details about how to manage discoveries of aircraft material, including restrictions, licensing, and guidance can be found in section 1.11.

## Archaeological Contractor(s)

- 1.6.28 Archaeological Contractor(s) may be appointed to carry out specific packages of work, for example works beyond the in-house capabilities of the Retained Archaeologist, or additional works, as required. The Archaeological Contractor(s) may be appointed by the Client or their appointed representatives (the Client, the Retained Archaeologist or other contractors/sub-contractors). In these instances, the Archaeological Contractor will ensure that works are specified, planned, undertaken and reported in accordance with this outline offshore archaeological OWSI

## Client Contractor(s)

- 1.6.29 The responsibility for implementing the outline offshore archaeological OWSI rests with the Client and their appointed representatives (including their Contractors).
- 1.6.30 All relevant Contractors engaged in the construction of the project shall:
- familiarise themselves with the requirements of the outline offshore archaeological OWSI and make them available to all of their staff working on the project (e.g. for Protocol briefings and archaeological input into Archaeological Method Statements);
  - obey legal obligations in respect of Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35);
  - obey legal obligations in respect of 'wreck' and 'treasure' under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) and the Treasure Act 1996 (Treasure Act 1996 c.24), respectively;
  - respect constraint maps and AEZs;
  - assist and afford access to archaeologists employed by the Client;

- implement a bespoke Protocol for Archaeological Discoveries;
- communicate with the Retained Archaeologist in the planning stages of any further survey work, to ensure archaeological objectives are included, as appropriate; and
- inform the Retained Archaeologist of any environmental constraint or matter relating to health, safety and welfare of which they are aware that is relevant to the archaeologists' activities.

1.6.31 The responsibility for ensuring the implementation of the Protocol rests with the Client, who will ensure that its Contractors and Sub-Contractors are contractually bound to implement it.

1.6.32 This outline OWSI will form an integral part of the Client's environmental management procedures. This will ensure that agreed mitigation is wholly incorporated within all construction, maintenance and operation and decommissioning plans and that all staff and their agents and contractors are bound to implement the terms of the outline OWSI.

## Stakeholder Liaison

1.6.33 The onshore and offshore archaeological resource should be approached seamlessly, particularly in areas of overlap. Therefore, to cover such areas, there should be liaison with stakeholders, including communication between the onshore and offshore Retained Archaeologists, the onshore and offshore Archaeological Curators, academics and other interested parties. This could be particularly important with regards to issues concerning the intertidal/foreshore landfall areas, to ensure a joined-up approach is consistently applied.

## 1.7 Archaeological Baseline Summary

### Previous Archaeological Work

1.7.1 A Scoping Report (AECOM, 2022) for the Proposed Project was issued to the Planning Inspectorate on 24 October 2022 and a Scoping Opinion (The Planning Inspectorate, 2022) was received from the Secretary of State (SoS) on 1 December 2022.

1.7.2 A Preliminary Environmental Information Report (PEIR) was submitted for statutory consultation in October 2023 (National Grid, 2023). The PEIR was appended with a Marine Archaeological Technical Report and an outline Offshore Written Scheme of Investigation.

### Further Data Collected

1.7.3 Further geoarchaeological data will be derived from an additional geotechnical survey of the study area. The results will comprise:

- the Stage 1 and Stage 2 assessment (and suggestions for further stages of assessment) of vibrocores that were recommended for Stage 2 geoarchaeological assessment following the first geotechnical survey undertaken in September 2021 and were subsequently discarded; and
- the Stage 1 assessment (and recommendations for further stages of assessment) of vibrocores obtained from within the additional areas that form the updated Offshore Scheme Order Limits for Statutory Consultation, as detailed in **Application**



**Document 7.6 Marine Archaeological Method Statements**, prepared and approved by Historic England prior to the survey commencing and detailing the collection and geoarchaeological assessment methodology for the survey.

- 1.7.4 The results will be compiled into a standalone document submitted post-submission.

## Future Baseline

- 1.7.5 The future baseline describes the likely evolution of the environment in the absence of the Proposed Project as far as natural changes from the current baseline can be assessed on the basis of the availability of archive datasets, environmental information and scientific knowledge.
- 1.7.6 The baseline environment is not static and will exhibit some degree of change over time, with or without the Proposed Project in place. Therefore, when undertaking impact assessments, it will be necessary to place any potential impacts in the context of the envelope of change that might occur naturally over the lifetime of the Proposed Project.

## Summary of Known and Potential Archaeological Assets

- 1.7.7 The baseline presented below is summarised from the ES chapter relating to marine archaeology (**Application Document 6.2.4.6 Part 4 Marine Chapter 6 Marine Archaeology**) with further details presented in the Marine Archaeological Technical report, **Application Document 6.3.4.6.A ES Appendix 4.6.A Marine Archaeological Technical Report**.
- 1.7.8 A list of the data sources used to complete this baseline is also presented in these associated documents.

## Palaeogeographic assessment

- 1.7.9 There are no designated or known prehistoric sites within the study area, however, there is potential for archaeological material of this date to exist within the study area (**Figure 7.5.5.1 Marine archaeological study area**). Detailed descriptions of the geological and palaeogeographic baselines are presented in **Application Document 6.3.4.6.A ES Appendix 4.6.A Marine Archaeological Technical Report** and **Figure 7.5.5.2 Palaeogeographic receptors of archaeological potential and geoarchaeological priority of vibrocores** shows the location of palaeogeographic features.
- 1.7.10 The identified geology of the study area has been divided into four distinct units, summarised as:
- Units 1 a - b: solid, pre-Quaternary bedrock not considered to be of archaeological potential;
  - Unit 2: Plio-Pleistocene marine deposit pre-dating the earliest known occupation of Britain and therefore not considered to be of archaeological potential;
  - Units 3 b - d: Pleistocene and early Holocene sediments visible in SBP data as both buried and underfilled palaeochannels, and cut and fill features containing deposits of sands, gravels, silts, clays and peats. These deposits have the potential to contain both *in situ* and derived archaeological material, alongside preserved organic remains of potential palaeoenvironmental importance; and

- Unit 4: modern seabed sediment that have the potential to contain re-worked artefacts and may cover wreck sites and other cultural heritage in areas of sufficient thickness.

1.7.11 Wessex Archaeology undertook a Stage 1 review of 51 geotechnical logs (located within the Offshore Scheme Order Limits) and integrated core photographs with the aim of identifying deposits of potential geoarchaeological interest along with recommendations for further geoarchaeological work. The results of the Stage 1 review revealed that peat was recovered in a single vibrocore (close to the Aldeburgh landfall option) and was assigned a high priority status due to its archaeological potential to preserve palaeoenvironmental and dating material. A total of 18 cores were given a medium priority status including several containing alluvium (organic and minerogenic) due to their potential to preserve organic and inorganic microfossils, and another located in a palaeochannel containing non-marine sand. The remaining 32 cores were given a low priority status.

1.7.12 In summary, the palaeogeographic assessment, supported by the geotechnical review, identified several features of archaeological potential located within the Unit 3 sediments within the study area. These features comprise:

- nine channels: one of which contained alluvium and peat interpreted as being of high paleoenvironmental potential (**75006**) and one that contained organic material interpreted as being of medium paleoenvironmental potential (**75032**). The remaining channels may relate to features of archaeological interest and have the potential to contain palaeoenvironmental material although no corresponding vibrocore data was obtained;
- four channel complexes, three of which (**75029**, **75030** and **75031**) are potentially part of the offshore route of the Thames/Medway river system, and one (**75035**) that is potentially part of the offshore route of the River Stour. All have the potential to contain palaeoenvironmental material;
- thirteen cut and fill features: one of which contained alluvium interpreted as being of medium paleoenvironmental potential (**75024**), and one of which is considered a complex feature with multiple phases of cut and fill (**75023**); and
- two areas of acoustic blanking that have the potential to be shallow gas which may have been caused by the microbial breakdown of organic matter and therefore may contain sediments of palaeoenvironmental interest (**75007** and **75009**).

### Seabed features

1.7.13 There are currently no maritime or aviation sites within the study area that are subject to statutory protection.

1.7.14 A detailed description of the seabed features baselines is presented in **Application Document 6.3.4.6.A ES Appendix 4.6.A Marine Archaeological Technical Report**. The locations of these seabed features are shown on **Figure 7.5.5.3 Seabed receptors of archaeological potential**.

1.7.15 Within the study area, a total of 1281 anomalies were identified during the geophysical assessment as being of possible archaeological potential and are discriminated as follows:

- forty-three A1 features (anthropogenic origin of archaeological interest);

- 408 A2\_h features (anomaly of likely anthropogenic origin but of unknown date; may be of archaeological interest or a modern feature);
  - 826 A2\_l features (anomaly of possible anthropogenic origin but interpretation is uncertain; may be anthropogenic or a natural feature); and
  - four A3 records (historic record of possible archaeological interest with no corresponding geophysical anomaly).
- 1.7.16 An additional eight seabed features are also located within the study area, either beyond the boundary of the geophysical survey area or were not included in the geophysical survey assessment due to the detail in the United Kingdom Hydrographic Office (UKHO) record indicating that the site relates to a modern vessel.
- 1.7.17 The anomalies recorded during the geophysical assessment together with the additional eight records can be further classified by probable type, as follows:
- fourteen wrecks;
  - twenty-six debris fields;
  - ninety-four areas of debris;
  - thirty-two areas of seabed disturbance;
  - fifty-eight linear debris;
  - one bright reflector;
  - 103 dark reflectors;
  - eighty-six mounds;
  - four depressions;
  - six magnetic trends;
  - 853 magnetic anomalies;
  - nine recorded wrecks; and
  - three obstructions.

### Marine potential

- 1.7.18 The assessment of potential for the discovery of shipwreck, shipwreck-derived, aircraft and aircraft-derived material within the study area draws on the results of the desk-based research combined with further research of the wider area. A detailed description of the marine potential is presented in **Application Document 6.3.4.6.A ES Appendix 4.6.A Marine Archaeological Technical Report**.

### Maritime potential

- 1.7.19 There is potential for discoveries of maritime craft from the Mesolithic to the modern period, including new sites that were not recorded in the current baseline and subsequent identification of the geophysical anomalies where an identification was not possible.
- 1.7.20 Post-medieval and modern wrecks, as they were generally made of more substantial material, are more likely to have been discovered through surveys undertaken by the

UKHO and others, and thus recorded in the archaeological record. However, there is still potential for the discovery of previously unrecorded wreck sites, particularly of wooden wrecks, broken up wrecks or partially buried wrecks that are more difficult to detect through geophysical survey. Many vessels were lost without a record being made, and sometimes even the records that were created have since been lost (Cant, 2013). Examining the recorded losses provides an indication to the potential for further discoveries.

### Aviation potential

- 1.7.21 There is potential for 20th century aircraft, particularly in relation to the Second World War, including new sites that were not recorded in the current baseline and subsequent identification of the geophysical anomalies where an identification was not possible.
- 1.7.22 Aircraft crash sites are also difficult to identify through archaeological assessments of geophysical survey, although experience indicates material from the site, such as engines or other material may be recorded as small obstructions or anomalies.

### Coastal and intertidal features

- 1.7.23 There are currently no coastal or intertidal sites within the study area that are subject to statutory protection.
- 1.7.24 Within the study area, there are a total of 34 records relating to archaeological (and potential archaeological) features, structures, obstructions, findspots and a magnetic anomaly. One record at the Suffolk landfall and 33 at the Kent landfall. These records have been compiled from NMHR, SHER, KHER and CITiZAN databases, together with the results of the archaeological walkover surveys.
- 1.7.25 These records relate to medieval/post-medieval fish traps, a 19th century rifle range, several Second World War coastal defence structures, the Ramsgate International Hoverport terminal, modern wooden posts potentially relating to a platform/structure, numerous wooden and metal posts of unknown date and function, several findspots for material that has since been recovered and small metal items still *in situ* and one UKHO obstruction described as foul ground.
- 1.7.26 A total of 141 geophysical anomalies, located in the intertidal area of Pegwell Bay between the MLWS and MHWS marks, were also identified during the SEP magnetometer survey in 2024, comprising one A1 magnetic anomaly with corresponding AEZ, 54 A2\_h anomalies and 86 A2\_l magnetic anomalies. Only one anomaly may relate to a Kent HER record for Second World War beach defences, although no visible material was identified during the walkover surveys.
- 1.7.27 A detailed description of the coastal and intertidal baseline is presented in **Application Document 6.3.4.6.A ES Appendix 4.6.A Marine Archaeological Technical Report**. The location of the coastal and intertidal features are shown on **Figure 7.5.5.4 Coastal and intertidal receptors of archaeological potential**.

### Historic Seascape Characterisation

- 1.7.28 According to LUC's 2107 Historic Seascape Characterisation (HSC): Consolidating the National HSC Database (Land Use Consultants, 2017), which consolidated the eight existing HSC implementation projects (undertaken between 2008 and 2015) into a single national database, the study area has been characterised as having the following elements:

- reclaimed land (from tidal marsh);
- cultural topography landward (wetland);
- recreation (open ground, wildlife watching);
- reclaimed land (from tidal marsh);
- settlement (urban);
- recreation (parks and gardens; wildlife watching);
- reclaimed land (from tidal marsh);
- fishing (bottom trawling, drift netting, potting);
- maritime safety (buoyage, safety area);
- navigation (wreck hazard, hazardous water, navigation route, shoals and flats, ferry crossing);
- ports and docks (dockyard, harbour);
- recreation (leisure beach, leisure sailing, wildlife watching);
- cultural topography landward (wetland);
- cultural topography marine (palaeochannel);
- energy industry (submarine power cable, renewable energy installation (wind)); and
- telecommunications (submarine telecommunications cable).

## 1.8 Potential Impacts

- 1.8.1 With regards to marine archaeology, the ES (**Application Document 6.2.4.6 Part 4 Marine Chapter 6 Marine Archaeology**) has identified the potential effects on marine archaeology, which might occur during the construction, operations and maintenance and decommissioning phases of the Proposed Project's Offshore Scheme.
- 1.8.2 The potential impacts and mitigation measures are summarised further below.

### Construction

#### Direct impacts

- 1.8.3 During the construction phase, direct impacts resulting in potential adverse effects upon marine archaeological receptors are those involving contact with the seabed or the removal of seabed sediments. Marine archaeological receptors with height, such as shipwrecks, may also be impacted by activities that occur within the water column.
- 1.8.4 There could be permanent physical loss or disturbance of potential seabed receptors on, or in shallow sediments below, the seabed caused by seabed preparation and construction activities. These receptors could include shallowly buried shipwrecks or aircraft crash sites. Areas of particular concern include areas of concentration of A2 anomalies (particularly buried magnetic anomalies with no surface expression).



1.8.5 There could also be permanent physical loss or disturbance of known and potential palaeogeographic or buried maritime or aviation features from construction works that penetrate the seabed surface, such as trenched marine cable installation.

1.8.6 In summary, direct impacts may include:

- pre-installation seabed/ground preparation, including pre-lay surveys and pre-sweeping activities;
- trenched marine cable installation, including jet trenching, mechanical trenching, mass flow excavators (MFE) or controlled flow excavators (CFE);
- trench backfilling and external cable protection, including rock backfill, rock placement, sand placement, CFE, concrete mattresses and rock bags;
- vessel activities, including marine cable lay vessel, cable barges, rock placement vessels, guard vessels and specialised support vessels where the vessel directly interact/disturb the seabed;
- wet storage areas on the seabed used to store cables; and
- ground preparation and cable laying activities within the intertidal zone, including trenchless cable installation activities, four boreholes, an HDD exit pit, concrete mattresses and a temporary cofferdam at the Kent landfall.

### Indirect impacts

1.8.7 Indirect impacts occur as a result of changes to hydrodynamic and sedimentary regimes leading to sediment reduction and erosion and scour patterns during construction.

1.8.8 In summary, indirect impacts may include:

- pre-installation seabed preparation activities including pre-sweeping activities;
- trench backfilling and external cable protection;
- vessel activities including marine cable lay vessel, cable barges, rock placement vessels, guard vessels and specialised vessels.

1.8.9 The Physical Processes assessment undertaken for the ES (**Application Document 6.2.4.1 Part 4 Marine Chapter 1 Physical Environment**) indicates that the magnitude of impact is expected to be minor and therefore not significant.

## Operation and Maintenance

### Direct impacts

1.8.10 Activities undertaken as part of Operation and Maintenance phase works have the potential to directly impact marine archaeological receptors on or under the seabed.

1.8.11 Direct impacts could include:

- regular monitoring surveys that, despite being non-intrusive, may interact with the seabed, for instance autonomous underwater vehicles (AUVs) and ROVs. Potential impact by support vessels could also occur dependent on the use of anchoring systems;

- localised lengths of the cable within areas of mobile sediment may require maintenance, including addition of mattresses, rock and grout bags, installation of remedial rock berms, additional trenching (where appropriate), and/or removal of excess sand depth;
- anchors of vessels deployed during periodic overhauls and scheduled or unscheduled operations and maintenance, and seabed contact by the legs of jack-up vessels/platforms.

In addition, any repaired cable that will need to be installed in an undisturbed area of the seabed will therefore risk direct impacts to marine archaeological receptors on or under the seabed; these impacts are similar to those identified during the construction phase.

### Indirect impacts

- 1.8.12 Any project-related operational and maintenance activity, infrastructure or additional marine traffic that causes indirect impacts on marine archaeological features through changes to hydrodynamic and sedimentary regimes. However, based on the Physical Processes assessment undertaken for the ES (**Application Document 6.2.4.1 Part 4 Marine Chapter 1 Physical Environment**) these are expected to be minor and therefore not significant.

## Decommissioning

### Direct impacts

- 1.8.13 Activities undertaken as part of decommissioning works could have direct impacts, including:
- the removal or recovery of redundant cable that will use techniques similar to the construction phase, minimising seabed disturbance. This includes any project-related activity that causes direct damage and/or loss to heritage receptors, together with increased associated vessel activity; and
  - removal of the trenchless solutions from the transition joint bay passing under the beach landfalls to the bellmouth exits will be reviewed at the time of decommissioning and therefore the impacts caused by this activity is currently unknown but is considered to be similar to during the construction phase.

### Indirect impacts

- 1.8.14 Any project-related decommissioning activity, infrastructure or additional marine traffic that causes indirect impacts affecting marine archaeological features. The potential activities are similar to those used during the construction phase although are considered to be simpler, minimising seabed disturbance.

## 1.9 Mitigation and Scheme of Investigations

### Introduction

- 1.9.1 With relation to marine archaeology, mitigation measures for the Offshore Scheme have been set out in the ES (**Application Document 6.2.4.6 Part 4 Marine Chapter 6 Marine Archaeology**). Mitigation measures have been recommended to reduce or

prevent impact on marine archaeological receptors, and these typically fall into one of the three categories: embedded measures; control and management measures; and mitigation measures.

- 1.9.2 This OWSI is based on recommendations made in the PEIR chapter in October 2023 (National Grid, 2023) and forms measure 20, one of the control and management measures used to manage impacts that could affect marine archaeological receptors, and it is a requirement of this commitment that the contents of the OWSI are adhered to for the duration of the Proposed Project. This Scheme of Investigation sets out how these mitigation measures will be undertaken and implemented. It has been informed by the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) and the Historic Environment Guidance for the Offshore Renewable Energy Sector (Wessex Archaeology, 2007), and as well as the standards and guidance listed below, as applicable. Should further data for the site be obtained as a result of updated reports or surveys, the mitigation measures detailed below may be subject to change.

## Standards and Guidance

- 1.9.3 The Method Statements and specifications in this document are based on archaeological best practice and guidance for offshore development. Guidance relating specifically to subsea cable projects does not currently exist, however, since cable routes are an integral part of offshore wind developments, the guidance above relating to renewable energy and offshore wind farm projects will be utilised for the purposes of this OWSI.
- 1.9.4 The principal sources (in chronological order) are:
- Identifying and Protecting Palaeolithic Remains: Archaeological Guidance for Planning Authorities and Developers (English Heritage, 1998)<sup>1</sup>;
  - Managing Lithic Scatters: Archaeological Guidance for planning authorities and developers (English Heritage, 2000);
  - Military Aircraft Crash Sites: Archaeological guidance on their significance and future management (English Heritage, 2002);
  - Protocol for reporting finds of archaeological interest (British Marine Aggregate Producers Association and English Heritage, 2005);
  - Code for Practice for Seabed Development (Joint Nautical Archaeology Policy Committee, 2006);
  - Historic Environment Guidance for the Offshore Renewable Energy Sector (Wessex Archaeology, 2007);
  - Guidance for Assessment of Cumulative Impacts on the Historic Environment from Offshore Renewable Energy (Oxford Archaeology, 2008);
  - Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment (English Heritage, 2008);

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<sup>1</sup> Historic England became a separate organisation from English Heritage in April 2015, therefore guidance before this date was published under English Heritage.

- Our Seas – A shared resource: High level marine objectives (Department for Environment, Food and Rural Affairs, 2009);
- Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for Renewable Energy Sector (Gribble & Leather, 2011);
- Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition) (English Heritage, 2011);
- Ships and Boats: Prehistory to Present - Designation Selection Guide (Historic England, 2017);
- Marine geophysics data acquisition, processing and interpretation guidance notes (Plets, Dix, & Bates, 2013);
- Protocol for Archaeological Discoveries: Offshore Renewables Projects (The Crown Estate, 2014);
- Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record (Historic England, 2015);
- Deposit modelling and archaeology: Guidance for mapping buried deposits (Historic England, 2020);
- Standard and guidance for historic environment desk-based assessment (Chartered Institute for Archaeologists, 2020a);
- Standard and guidance for nautical archaeological recording and reconstruction (Chartered Institute for Archaeologists, 2020b);
- Standard and guidance for an archaeological watching brief (Chartered Institute for Archaeologists, 2020c);
- Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021);
- Commercial Renewable Energy Development and the Historic Environment (Historic England, 2021);
- Curating the Palaeolithic (Historic England, 2023).
- Universal guidance for archaeological excavation (Chartered Institute for Archaeologists, 2023a); and
- Universal guidance for archaeological field evaluation (Chartered Institute for Archaeologists, 2023b).

## Archaeological Exclusion Zones

- 1.9.5 Best practice favours the preservation *in situ* of archaeological remains as the first option, and therefore the ideal mitigation is avoidance (The Crown Estate, 2014); in all cases, known cultural heritage receptors will be avoided. The principle means used to preserve *in situ* any features or deposits of potential or known archaeological interest are AEZs (mitigation measure 23).
- 1.9.6 AEZs are placed around discrete sites, or more extensive areas identified by the impact assessment, and prohibit development related activities within their extents, however they do not restrict remote survey work or other activities that do not impact the seabed.

The Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021, p. 27) states that AEZs are formed by establishing a buffer around the known extents of sites for which the available evidence suggests that there could be archaeological material present on the seabed.

- 1.9.7 The final development layout will take into account the locations and extents of all AEZs, which will be marked on the Offshore Scheme masterplans. The Client will require its Contractor(s) to conduct all construction activity in such a way as to prevent any impacts, by construction or related works, within any AEZs, and keep records that this can be evidenced (forming mitigation measures 52-55).
- 1.9.8 The establishment of appropriate AEZs depends on sufficient geophysical data of good enough quality having been acquired to enable the identification of assets and delineation of appropriate AEZs around the buffered extents of these anomalies. The establishment of additional AEZs may also occur following the archaeological assessment of further geophysical data acquired for the Proposed Project as detailed in project-related Method Statements produced under this outline OWSI.
- 1.9.9 Once established, AEZs may be altered (enlarged, reduced, moved or removed) as a result of further archaeological assessment of data or field evaluation, however, the alteration of AEZs will only be undertaken with the agreement of the relevant stakeholders and the Archaeological Curator(s). Furthermore, alteration of AEZs may require additional archaeological assessment of subsequent marine surveys and ground truthing. Further surveys could include geophysical, ROV or diver surveys. To maximise the archaeological benefits of these surveys, any surveys covering AEZs should include archaeological advice in the planning stages. Following any alteration to an AEZ, a new plan giving details of the current AEZs will be drawn up and issued to relevant project Contractors and Sub-Contractors that will require this information for adhering to constraints maps, along with the Archaeological Curator(s) and other relevant stakeholders.
- 1.9.10 If impacts to sites of archaeological importance within an AEZ cannot be avoided, measures to reduce, remedy or offset disturbance will be agreed in advance with the Archaeological Curator(s) but could include further survey through to complete excavation.
- 1.9.11 If it becomes apparent that activities have taken place within any AEZ without prior consent, the party responsible will obtain advice from the Retained Archaeologist in accordance with their obligations with respect to the offshore archaeological OWSI, and the AEZ may require monitoring to determine the level and extent of impact.

### Location and extent of AEZs

- 1.9.12 For the Proposed Project, 53 sites of archaeological potential have been given AEZs (**Figure 7.5.5.3 Seabed receptors of archaeological potential**). These comprise 43 A1 sites of geophysical anomalies anthropogenic origin of archaeological interest, four A3 historic records of possible archaeological interest with no corresponding geophysical anomaly, and six additional seabed features that were located beyond the boundary of the geophysical survey area or were not included in the geophysical survey assessment due to the detail in the UKHO record indicating that the site relates to a modern vessel.
- 1.9.13 For the 13 of the 14 wrecks identified within the study area, AEZs of 50 m around the wreck extents have been recommended, however a 100 m AEZ has been recommended for the remaining wreck, **70516**, as it was identified as a badly degraded



and predominantly buried site and therefore the boundary could not be confidently distinguished. For items of debris and debris fields associated with wrecks, AEZs of 25 m around their recorded positions or feature extents are recommended. For the five very large magnetic only anomalies that may represent ferrous debris, either buried or with no seabed surface expression, a 50 m AEZ around their recorded positions is recommended.

- 1.9.14
- For the three recorded wrecks and one recorded obstruction, precautionary AEZs of 100 m are recommended. Although the wrecks and obstruction were not identified in any of the geophysical datasets, the UKHO records state that remains have previously been found at their positions, and so the potential remains for associated material or debris to be present within the vicinity.
- 1.9.15
- For sites that are currently recommended not to have an AEZ, see the avoidance and micro-siting section below for further information.
- 1.9.16
- The locations and extents of all recommended AEZs are shown in [Table 1.2](#)~~Table 1.2~~.

Table 1.2 Recommended AEZs within the study area

WA ID	Classification/Wreck category	Position (ETRS89 UTM31N)		Exclusion zone (m)
		Easting	Northing	
2002	Dangerous wreck	408081	5765927	100 m buffer around UKHO point
2003	Dangerous wreck (dead)	407342	5757133	50 m buffer around UKHO point
2004	Dangerous wreck (dead)	400390	5706466	100 m buffer around UKHO point
2006	Dangerous wreck	399656	5700989	100 m buffer around UKHO point
2008	Wreck (dead)	389455	5685030	50 m buffer around UKHO point
2009	Wreck (dead)	389200	5685809	50 m buffer around UKHO point
7116	A1 - Wreck	407156	5779591	50 m around recorded position
7120	A1 - Wreck	407873	5778194	50 m around recorded position
7173	A1 - Wreck	408301	5772169	50 m around recorded position
7174	A1 - Debris field	408313	5772193	25 m buffer around current feature extent
7176	A1 - Wreck	408291	5772086	50 m around recorded position

WA ID	Classification/Wreck category	Position (ETRS89 UTM31N)		Exclusion zone (m)
		Easting	Northing	
7177	A1 - Debris	408291	5772108	25 m buffer around current feature extent
7178	A1 - Debris field	408291	5772086	25 m buffer around current feature extent
7231	A1 - Wreck	408203	5764778	50 m around recorded position
7269	A1 - Wreck	406446	5750778	50 m around recorded position
7270	A1 - Debris field	406438	5750788	25 m buffer around current feature extent
7414	A1 - Wreck	399935	5701752	50 m around recorded position
7426	A1 - Wreck	399875	5700385	50 m around recorded position
7430	A1 - Debris field	399891	5700391	25 m buffer around current feature extent
7433	A1 - Debris	399846	5700382	25 m buffer around current feature extent
7434	A1 - Debris field	399899	5700369	25 m buffer around current feature extent
7471	A1 - Debris field	400574	5693564	25 m buffer around current feature extent
7472	A1 - Wreck	400613	5693544	50 m around recorded position
7487	A1 - Magnetic	399532	5691524	50 m around recorded position
7494	A1 - Wreck	398778	5690029	50 m around recorded position
7495	A3 - Recorded wreck	398693	5689906	100 m around recorded position
7500	A3 - Recorded wreck	399517	5691466	100 m around recorded position
7608	A1 - Debris	394774	5685247	25 m buffer around current feature extent
7612	A1 - Magnetic	394619	5685125	50 m around recorded position
7613	A1 - Magnetic	394568	5685116	50 m around recorded position
7617	A1 - Debris field	394418	5685137	25 m buffer around current feature extent
7631	A1 - Magnetic	393912	5684931	50 m around recorded position

WA ID	Classification/Wreck category	Position (ETRS89 UTM31N)		Exclusion zone (m)
		Easting	Northing	
7647	A1 - Debris field	393047	5685030	25 m buffer around current feature extent
7721	A1 - Wreck	389778	5685518	50 m around recorded position
70066	A1 - Debris field	408201	5764765	25 m buffer around current feature extent
70090	A1 - Wreck	407527	5759254	50 m around recorded position
70091	A1 - Debris	407544	5759263	25 m buffer around current feature extent
70093	A1 - Debris field	407519	5759241	25 m buffer around current feature extent
70114	A1 - Debris	406741	5756416	25 m buffer around current feature extent
70115	A1 - Debris	406776	5756403	25 m buffer around current feature extent
70116	A1 - Debris	406756	5756390	25 m buffer around current feature extent
70117	A1 - Wreck	406737	5756355	50 m around recorded position
70118	A1 - Debris	406726	5756385	25 m buffer around current feature extent
70121	A1 - Debris	406769	5756339	25 m buffer around current feature extent
70125	A1 - Debris field	406753	5756322	25 m buffer around current feature extent
70127	A1 - Debris	406786	5756314	25 m buffer around current feature extent
70129	A1 - Debris field	406712	5756318	25 m buffer around current feature extent
70134	A1 - Debris	406702	5756286	25 m buffer around current feature extent
70174	A3 - Recorded wreck	406124	5750234	100 m around recorded position
70452	A3 - Recorded obstruction	397413	5688511	100 m around recorded position

WA ID	Classification/Wreck category	Position (ETRS89 UTM31N)		Exclusion zone (m)
		Easting	Northing	
70516	A1 - Wreck (badly deteriorated and buried)	396675	5687279	100 m buffer around current feature extent
70722	A1 - Debris field	391841	5685008	25 m buffer around current feature extent
70758	A1 - Magnetic	386067	5687107	50 m around recorded position

### Monitoring of AEZs

- 1.9.17 The effectiveness of the AEZs will be periodically monitored by the Retained Archaeologist in consultation with the Client, and details and frequency of such will be specified in a Method Statement when a programme of works is established and will be agreed between the Applicant and the Archaeological Curator(s). Monitoring may occur following construction and decommissioning, with occasional monitoring during the operations phase.
- 1.9.18 Monitoring of AEZs will be undertaken following an archaeological assessment of post-construction geophysical survey data and review of the final layout of turbine foundations, foundations for associated infrastructure, cables and positioning records of vessel jack up legs or anchors (The Crown Estate, 2021, p. 29).
- 1.9.19 Periodic Archaeological Reports may be prepared to review whether there have been any incursions into each AEZ and whether there are still archaeological grounds for maintaining each AEZ. Archaeological Reports on AEZs will include recommendations regarding amendment of the extent, removal and/or creation of new AEZs.

### Temporary Exclusion Zones (TEZs)

- 1.9.20 The Protocol for Archaeological Discoveries provides for Temporary Exclusion Zones (TEZs) to be introduced when discoveries of archaeological material or sites are made. These operate in a similar way to the fixed AEZs but may be lifted once further mitigation has been completed, with the agreement of the Archaeological Curator(s).

### Avoidance and Micro-Siting

- 1.9.21 Cables, legs of jack-up vessels/platforms, anchors of project and support vessels and any other project works that could impact the seabed will be micro-sited to avoid the AEZs and all other A2 geophysical anomalies of archaeological potential and all additional seabed features that were located beyond the boundary of the geophysical survey area or were not included in the geophysical survey assessment due to the detail in the UKHO record indicating that the site relates to a modern vessel (**Figure 7.5.5.3 Seabed receptors of archaeological potential**). Avoidance and micro-siting forms mitigation measure 25.
- 1.9.22 No AEZs are currently recommended for the A2\_h and A2\_l anomalies and two of the additional seabed features, and, to facilitate the design of the development scheme, buffers are not currently proposed for any of these anomalies. However, avoidance of

these features by micro-siting is recommended if they are proposed to be directly impacted by the Proposed Project in the future.

- 1.9.23 It is possible that these anomalies/features could represent material from wreck or aviation sites of high archaeological value and importance, and therefore further AEZs could be instituted if required. However, it is also possible that these anomalies could comprise modern debris of no archaeological significance. Where a previously unknown heritage asset is discovered, or a known heritage asset proves to be more significant than foreseen at the time of application, the project will inform the MMO, as advised by Historic England, and will agree a solution that protects the significance of the new discovery, so far as is practicable, within the project parameters (mitigation measure 24).
- 1.9.24 If there is potential for these anomalies/features to be impacted by the Proposed Project, they will need to be assessed on a case-by-case basis, to accurately position the site and effectively confirm its character, in agreement with the Archaeological Curator(s). This will allow an assessment of the anomaly/feature's relative archaeological value. The methodologies for assessing the features could include further geophysical survey, ROV survey (for example, in combination with a UXO survey), or diver survey, and these are discussed in more detail below. Should any further surveys be planned, archaeological advice should be included at the planning stage, to maximise results for archaeological assessment.
- 1.9.25 Information gathered through further survey or other archaeological works must be disseminated, for example through reporting.

## Preservation by Record

- 1.9.26 If it is not possible to preserve *in situ* A2 geophysical anomalies or findspots, disturbance will be offset by appropriate and satisfactory measures, also known as 'preservation by record' (mitigation measures 21 and 42-44). In these circumstances, the extent of the further survey required will be determined based on the assessed value or importance of the feature, and through discussions with the Archaeological Curator(s). Further works could include survey, recording and/or excavation, to any depth likely to be impacted, prior to the impact occurring and will be detailed in a specific Method Statement.
- 1.9.27 The impact of the Proposed Project, if and where appropriate, may also be remedied by restabilising sites that have already been destabilised but not destroyed, or by offsetting damage to a site by detailed analysis and safeguarding of otherwise comparable sites elsewhere. Again, such work will be detailed in a specific Method Statement, prepared in agreement with the Archaeological Curator(s).

## Protocol for Archaeological Discoveries

- 1.9.28 Unexpected material that may be encountered during the course of the construction, operations and maintenance and decommissioning phases of the Proposed Project will be addressed through adherence to a project-specific Protocol for Archaeological Discoveries, as laid out below, established to support the reporting of such material (mitigation measure 20).
- 1.9.29 The aim of a Protocol is to reduce any adverse effects of the development on the historic environment by enabling people working on the development to report archaeological discoveries in a manner that is both convenient to their everyday work

and effective with regard to the requirements of the Archaeological Curator(s). A Protocol does not replace the process of archaeological assessment and evaluation, but rather acts as a safety net in the event of unexpected discoveries during the course of development works (The Crown Estate, 2021).

- 1.9.30 The Protocol can be implemented in conjunction with many types of proposed works and is designed to operate when it is not practical or safe for an archaeologist to be present. Works that may require an archaeological protocol include geotechnical surveys, UXO surveys, pre-lay grapnel runs, clearance works, construction, operations and maintenance activities, decommissioning activities, or any other works with the potential for the discovery of material on the seabed and/or recovery of material to the surface. Method Statements relating to these activities should include provision for reporting discoveries through a Protocol.
- 1.9.31 Any discoveries by Project Staff are reported to a 'Site Champion' on their vessel or site (usually the senior person on-board or on site). The Site Champion could be a UXO specialist, Vessel Master, a Construction Foreman, or any other person in a position to control the immediate works. The Site Champion then reports to the 'Nominated Contact', who has been formally identified by the Client and/or their representative to co-ordinate the implementation of the Protocol (referred to as the 'Implementation Service' in Annex 1). The Nominated Contact will in turn inform the Retained Archaeologist and the Client's Project Manager(s). All reports should be made in a timely manner to facilitate an appropriate response.
- 1.9.32 The Retained Archaeologist will in turn liaise with the Nominated Contact, the Client and/or their representative, the Archaeological Curator(s) and others, as necessary. Provision will be made by the Client and/or their representative, in accordance with the Protocol, for the prompt reporting/recording to the Archaeological Curator(s) of archaeological remains encountered or suspected during the works. If the find is recovered and constitutes 'wreck' within the terms of the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21), then the Retained Archaeologist will compile a Report of Wreck and Salvage to be signed by the Client and sent to the Receiver of Wreck within 28 days of recovery.
- 1.9.33 Should a find comprise material suspected to be from an aircraft lost while in military service, both the Receiver of Wreck and the JCCC of the Ministry of Defence will be notified by the Client as advised by the Retained Archaeologist, as the material will still be considered 'wreck' under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) but could also be protected under the Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35). With regards recovery of 'wreck', the Client and/or their representative will be responsible for the legal obligations under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) and all correspondence with the Receiver of Wreck. If recovered material is held by the Retained Archaeologist, it is essential they are included in all correspondence with the Receiver of Wreck and are aware of any updates or changes to the reports (commonly known as droits) associated with the material. Section 1.9 provides further information on the process of reporting wreck material.
- 1.9.34 For discoveries of high archaeological importance, call-out investigations could be instituted, following discussions with the Archaeological Curator(s).
- 1.9.35 As the Protocol is designed to operate when an archaeologist is not present, it is recognised that for the Protocol to be effective, participants (such as the Nominated Contact, Site Champions and Project Staff) should receive Protocol awareness training from the Retained Archaeologist or appropriate alternative. Project Staff involved with



the following works in particular should undergo training: UXO survey(s), pre-lay grapnel runs, clearance works, and any other works with potential for the discovery of material on the seabed and/or recovery of material to the surface. This will ensure that staff are familiar with the Proposed Project's Protocol for Archaeological Discoveries, are able to recognise finds of archaeological potential, understand how to record them, and are aware of the reporting process.

- 1.9.36 Protocol awareness training can be undertaken by the Retained Archaeologist for all relevant staff, through short 'Toolbox Talks', and hard copies of the Protocol can be made available for use on-board vessels. The relevant staff on applicable pre-construction, construction, operations and maintenance and decommissioning vessels will be informed of the Protocol, details of the find types that may be of archaeological interest, and the potential importance of any archaeological material encountered. The Client and/or their representative should ensure that all staff are aware of any areas considered to be of archaeological sensitivity and should be informed to exercise due vigilance during any works in these areas.
- 1.9.37 Full contact details for all relevant parties will be held by the Retained Archaeologist.
- 1.9.38 Should any sensitive sites come to light, management plans will be put in place, through consultation with the Archaeological Curator, as additional information is gathered as required.
- 1.9.39 Annex 1 contains the flow chart documents showing how the Protocol should operate, with an overall sequence of reporting alongside the actions required from project staff, the Site Champion and the Nominated Contact.

## Method Statements

- 1.9.40 This outline offshore archaeological OWSI provides a framework for further archaeological investigations for the Proposed Project. All works will be undertaken in accordance with the methodology set out within this outline offshore archaeological OWSI and in compliance with the standards outlined by the ClfA (2020a; 2020b; 2020c; Standard and guidance for the collection, documentation, conservation and research of archaeological materials, 2020d), excepting where they are superseded by statements made below.
- 1.9.41 Detailed Archaeological Method Statements will be produced, as required, for further archaeological works. Each Archaeological Method Statement will correspond to a package of works, for example, archaeological assessment of marine geophysical data, archaeological assessment of ROV data from the UXO survey, and archaeological investigation using divers and/or ROVs. The preparation of Method Statements forms mitigation measure 26.
- 1.9.42 Method Statements will provide details about the following:
- form of commission and contractual relationship with the Client;
  - relation between the Method Statement, the outline OWSI and the license condition(s);
  - context in terms of relevant construction works;
  - specific objectives of archaeological works;
  - extent of investigation;

- investigation methodology
- anticipated post-investigation actions, including processing, assessment and analysis of finds and samples;
- reporting;
- timetable;
- monitoring arrangements; and
- health, safety and welfare.

- 1.9.43 Method Statements will be submitted to the Archaeological Curator(s) for approval and will include provision for the relevant Archaeological Curator(s) to monitor the progress of the archaeological works, as appropriate, be that through site visits or meetings with the Client, the Contractor(s), and the Retained Archaeologist.
- 1.9.44 Furthermore, where relevant, the Retained Archaeologist will provide input into other Contractors' proposed survey Method Statements to ensure data collection is optimised so that it can be used to identify and characterise features of archaeological importance that could be impacted by development works and inform mitigation proposals such as avoidance of wrecks and debris.

## Marine Geophysical Investigations

- 1.9.45 The Client will ensure archaeological involvement in the planning and review of any further geophysical surveys related to UXO and/or any further geophysical investigations relating to archaeological assessment that are planned for the Proposed Project (forming part of mitigation measure 26).
- 1.9.46 For all aspects of marine geophysical investigations, the Client will adhere to applicable standards and guidance. For example, geophysical surveys will be undertaken in line with Marine Geophysics Data Acquisition, Processing and Interpretation (Plets, Dix, & Bates, 2013) and Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021).
- 1.9.47 The Crown Estate's Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (2021) details specifications for archaeological marine geophysical investigations with regard to:
- sidescan sonar survey;
  - magnetometer survey;
  - sub-bottom profiler survey; and
  - multibeam bathymetry survey.
- 1.9.48 The specifications of any proposed marine geophysical survey whose primary aim is non-archaeological (i.e., UXO, engineering or environmental) will be subject to advice from the Retained Archaeologist to ensure that archaeological input is provided at the planning stage and to enable archaeological considerations to be taken into account without compromising the primary objective of the survey. The additional archaeological input will comprise advice from an appropriately qualified marine archaeologist on the following points:
- available details of sites and/or anomalies identified in the desk-based technical report and archaeological assessment of geophysical survey data (**Application**

#### **Document 6.3.4.6.A ES Appendix 4.6.A Marine Archaeological Technical Report);**

- archaeological potential of areas where no existing sites and/or anomalies are yet known;
- methodologies, including geophysical survey equipment specifications and proposed acquisition settings, survey line spacing, and orientation of lines and cross lines;
- proposed geophysical data deliverable types and file formats; and
- requirements for post-processing, interpreting, and archiving resulting data.

1.9.49 Consideration will also be given to having an archaeologist or geophysicist with appropriate archaeological experience on-board during the acquisition of data. The on-board representative responsible for archaeology will advise on the suitability for archaeological purposes of the data being acquired and be able to propose, through communication with the Retained Archaeologist, minor changes to the survey method and settings, for instance, to optimise archaeological results and thereby minimise the need to repeat surveys.

1.9.50 Should any geophysical surveys be carried out primarily for archaeological purposes, the specification should be prepared by a suitably qualified archaeologist or marine geophysicist. Ideally, the survey company will have experience in obtaining such data for archaeological purposes and will provide the survey data and operational reports in appropriate industry standard digital formats, as defined during the survey planning stage. If required, geophysicists with appropriate expertise may also be recommended to be on-board during the survey.

1.9.51 For bathymetry data gathered and assessed for non-archaeological purposes (for example, as part of a UXO survey or boulder/obstruction clearance), the raw bathymetry data must be retained and made accessible to the Retained Archaeologist, should anomalies subsequently be determined to be of archaeological interest.

1.9.52 The results of further geophysical interpretation will be compiled as an Archaeological Report by the Retained Archaeologist, consistent with the provisions on reporting within this outline archaeological OWSI.

1.9.53 Key points relevant to marine geophysical investigations are included below.

#### **Archaeological interpretation of marine geophysical data**

1.9.54 New geophysical survey data will be interpreted by an archaeologist with an appropriate level of expertise.

1.9.55 Raw survey data, together with factual reports and trackplots, will be made available in digital formats to the Archaeological Contractor.

1.9.56 Archaeological interpretation will include:

- examination of sidescan sonar, magnetometer, sub-bottom and multibeam data for the area and surroundings of known wreck sites and previously identified geophysical anomalies;
- examination of sidescan sonar, magnetometer, sub-bottom and multibeam data within areas that will be subject to scheme impacts in order to identify as yet unknown wreck remains;

- assessment of sub-bottom data in order to plot the general trend of the sub-surface sediments with archaeological potential; and
- following the initial assessment, further detailed interpretation of sub-bottom data within those areas that will be subject to scheme impacts.

1.9.57 The results of further geophysical interpretation will be compiled as an Archaeological Report consistent with section 1.14 on Reporting. The archaeological assessment of sufficient good quality geophysical survey data enabling the identification of assets could result in the establishment, amendment or removal of AEZs.

## Geoarchaeological Involvement in Marine Geotechnical Investigations

1.9.58 In September 2021 69 cores were collected by MMT from within the Offshore Scheme draft Order Limits (51 of which are located in the current Order Limits, as defined for the Statutory Consultation stage). The Stage 1 review recommended that a Stage 2 geoarchaeological recording be undertaken of a sample of cores to describe the sequences recovered and undertake a deposit modelling (if suitable) and interpret the depositional environment (if possible). Eight cores, including the one high potential core and seven medium potential, were identified and recommended for the Stage 2 review, however these cores were targeted and used for engineering lab testing prior to their geoarchaeological analysis.

1.9.59 An additional geoarchaeological survey was agreed with Historic England and was undertaken in October 2024. Vibrocores that were originally assessed as being of high or medium priority following the Stage 1 review and were recommended for Stage 2 assessment will be retargeted in the additional geotechnical survey to allow for the Stage 2 assessment to be undertaken (following a repeated Stage 1 review). The results will be compiled into a standalone document submitted post-submission.

1.9.60 Following changes to the Offshore Scheme Order Limits, two of these vibrocores (748-NAT-NB-VC-021 and 748-NAT-NB-VC-022) were found to be located outside the current extent. Subsequently, it was confirmed with National Grid (21 October 2024) that the position of these vibrocores could be moved inside the Order Limits giving the opportunity to characterise the sediments in the channel feature 75037 and its northern extent. In total, nine vibrocores were collected as one needed to be redrilled to reach the target maximum depth of 6.5 mbsf (748-NAT-NB-VC-046A\_A).

1.9.61 [Table 1.3](#) shows the location of the nine vibrocores that were retargeted in the geoarchaeological survey campaign undertaken in October 2023.

**Table 1.3 Locations of vibrocores to be retargeted**

Vibrocore ID	Priority after 2021 survey	2021 survey location		2024 survey location	
		ETRS89 UTM31N		ETRS89 UTM31N	
		Easting	Northing	Easting	Northing
748-NAT-NB-VC-S6-005	High	408108	5777807	408109	5777807
748-NAT-NB-VC-021	Medium	406062	5757786	407066	5757194
748-NAT-NB-VC-022	Medium	405615	5755807	406986	5756520
748-NAT-NB-VC-_046A	Medium	407234	5725168	407232	5725168
748-NAT-NB-VC-046A_A	-	-	-	40723	5725170
748-NAT-NB-VC-050	Medium	404873	5718438	404873	5718438
748-NAT-NB-VC-055A	Medium	401331	5711276	401331	5711276
748-NAT-NB-VC-061	Medium	399727	5701283	399730	5701283
748-NAT-NB-VC-062A	Medium	399606	5699519	399607	5699518

- 1.9.62 The additional geotechnical survey undertaken in October 2024 also obtained 11 vibrocores from four additional areas of the Offshore Scheme Order Limits, as defined for the Statutory Consultation stage. Only nine vibrocores were envisaged for this survey, but two additional vibrocores were obtained as the first vibrocores failed to reach the maximum depth of 6.5 mbsf and needed to be redrilled. The Stage 1 assessment of these cores and recommendations for additional analysis will also be integrated into a standalone report submitted post-submission.
- 1.9.63 The Retained Archaeologist will work with, and communicate early on with, the Geotechnical Contractor to ensure that all vibrocores from this survey will be recovered and stored correctly prior to archaeological assessment first. This process will be recorded in the Method Statement (see **Application Document 7.6 Marine Archaeological Method Statements**).
- 1.9.64 The method statement will include clear provisions for the development of a collection, retention and storage strategy for cores, to allow for analysis to take place. It will be recommended for cores to be collected using light-proof sleeves, and that cores must be stored and split under light-safe (dark) laboratory conditions, to promote the preservation of the integrity of deposits of a certain age.
- 1.9.65 If boreholes and/or vibrocores are going to be assessed on-board the survey vessel, Historic England has advised that consideration be made for an archaeologist to be on-board during the geotechnical survey. If geotechnical material will not be assessed on-board, but rather be recovered to lab facilities for assessment on shore, the presence of an archaeologist on-board during acquisition would not be required, however an archaeologist must be present in the lab when the cores are split to ensure geoarchaeological samples are recovered prior to any geotechnical testing required for engineering purposes, which could prevent such samples from subsequently being collected.

## Archaeological input in planning marine geotechnical investigations

- 1.9.66 Should any further sampling (for example by vibrocore, borehole) be planned, the Retained Archaeologist should be consulted during the sample site selection process to identify any sample locations of particularly high archaeological potential (forming part of mitigation measure 26).
- 1.9.67 The specification of any proposed geotechnical surveys will be subject to advice from the Retained Archaeologist to ensure that geoarchaeological input is provided at the planning stage and to enable archaeological considerations to be taken into account. There should be an appropriate level of liaison at the planning stage to review the potential for data to be gathered in a manner that is beneficial to both the initial intent and archaeological investigations, without compromising the original intention of the survey. The geotechnical specification will also be informed by any previous stages of work, for example archaeological interpretation of geophysical data.
- 1.9.68 The Archaeological Curator will be consulted regarding the proposed locations of geotechnical work and will be provided with the results of each stage of investigation.
- 1.9.69 If further work is recommended by the Retained Archaeologist, the relevant Historic England Science Advisor must be contacted to discuss the scope and evidential value of such works. Any resulting core logs from geotechnical sampling should be made available for geoarchaeological assessment by the Retained Archaeologist.
- 1.9.70 Any works planned in the coastal/intertidal zone should ensure that both onshore and offshore Archaeological Curators are consulted. Offshore and onshore geoarchaeological teams will need to liaise closely to ensure that mitigation is designed where it is most effective to obtain the best results. Results of any terrestrial, offshore and intertidal investigations will be shared between the offshore and onshore teams. Should results provide sufficient information, a deposit model including both offshore and onshore results could be developed to illustrate the interface of the distribution of underlying sediments of archaeological potential, which will enable an assessment of the extent of linkages between the offshore and onshore deposits.

## Geoarchaeological analysis

- 1.9.71 A structured approach will be taken to any necessary archaeological analysis of material obtained through geotechnical investigations as appropriate to satisfy the requirements of the Archaeological Curator(s) for delivery of the required mitigation measures.
- 1.9.72 The objectives, approaches and methods to be applied in each geotechnical investigation including the proposed geoarchaeological analysis will be set out in a Method Statement which will be subject to agreement with the Archaeological Curator(s).
- 1.9.73 Consultation between the Retained Archaeologist and the Contractor undertaking geotechnical investigations should occur to enable the relevant samples to be retained for geoarchaeological analysis. Cores that have the potential for archaeological assessment and/or been selected for archaeological assessment should be split in half prior to any further sampling to enable further analysis if required and where it does not compromise the original intention of the survey.
- 1.9.74 The Crown Estate's 2021 document (Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects) details specifications for archaeological marine geotechnical investigations with regard to:



- geoarchaeological input into EIA;
- geoarchaeological input into geotechnical survey planning;
- review of geotechnical logs;
- recording of geotechnical samples;
- geoarchaeological sampling; and
- assessment and analysis.

1.9.75 The results of further geoarchaeological investigation will be compiled as an Archaeological Report.

1.9.76 To help frame marine geoarchaeological investigations, Wessex Archaeology has developed a five-stage approach, encompassing different levels of investigation appropriate to the results obtained at each stage, accompanied by formal reporting of the results obtained at the level achieved (Table 1.4).

**Table 1.4 Geoarchaeological programme of analysis**

Stage	Method	Description
1	Assessment	A desk-based archaeological assessment of the borehole and CPT logs generated by geotechnical contractors aims to establish the likely presence of horizons of archaeological interest and broadly characterise them, as a basis for deciding whether and what Stage 2 archaeological recording is required. The Stage 1 report will state the scale of Stage 2 work proposed.
2	Geoarchaeological Recording	Archaeological recording of selected retained or new core samples should be undertaken. This will entail the splitting of the cores, with half of each core being cleaned and recorded. The Stage 2 report will state the results of the archaeological recording and will indicate whether any Stage 3 work is warranted.
3	Sampling and Assessment	Dependent upon the results of Stage 2, sub-sampling and palaeoenvironmental assessment (pollen, diatoms and foraminifera) may be required. Subsamples will be taken from one core-half, with the other core-half retained intact for further sub-sampling, should it be required. Assessment will comprise laboratory analysis of the samples to a level sufficient to enable the value of the palaeoenvironmental material surviving within the cores to be identified. Subsamples will also be taken and retained at this stage in case radiocarbon dating is required during Stage 4. The Stage 3 report will set out the results of each laboratory assessment together with an outline of the archaeological implications of the combined results and will indicate whether any Stage 4 work is warranted.

Stage	Method	Description
4	Analysis and Dating	Full analysis of pollen, diatoms and/or foraminifera assessed during Stage 3 will be undertaken. Typically, Stage 4 will be supported by scientific dating of suitable subsamples (including radiocarbon dating and/or luminescence dating) and where appropriate, chronological modelling using Bayesian approaches. Stage 4 will result in an account of the successive environments within the coring area, a model of environmental change over time, and an outline of the archaeological implications of the analysis.
5	Final Report	If required Stage 5 will comprise the production of a final report of the results of the previous phases of work for publication in an appropriate journal. This report will be compiled after the final phase of archaeological work, whichever phase that is.

- 1.9.77 Further recommendations can be provided should any further stages of geoarchaeological assessment be deemed necessary, through to Stage 5, if required. Corresponding reporting will be undertaken in line with this OWSI.

## Archaeological Investigations using Divers and/or ROVs

- 1.9.78 Archaeological diver/ROV-based investigations will take place where the primary objectives are archaeological, and the diving is led by archaeologists.
- 1.9.79 Archaeological diver/ROV surveys can be employed to gather archaeological data concerning wreck sites and geophysical anomalies to safeguard the archaeological record or to alter (enlarge, reduce, move or remove) existing AEZs or TEZs. Specifically, an archaeological diver or ROV-based assessment may be required where it is not possible to protect an archaeological site through the implementation of an AEZ or where visual clarification is sought to confirm or amend an AEZ or TEZ.
- 1.9.80 Details regarding these investigations will be compiled into a Method Statement for approval by the Client and Archaeological Curator(s) (forming part of mitigation measure 26).
- 1.9.81 Where a previously unknown heritage asset is discovered, or a known heritage asset proves to be more significant than foreseen at the time of application, the project will inform the MMO, as advised by Historic England, and will agree a solution that protects the significance of the new discovery, so far as is practicable, within the project parameters (mitigation measure 24).

## Archaeological Watching Briefs

- 1.9.82 A watching brief is a formal programme of archaeological monitoring and will involve attendance by an Archaeological Contractor during coastal/intertidal and marine works (forming part of mitigation measure 26). Watching briefs by a suitably qualified archaeologist may be applicable to the construction of the Proposed Project if material is moved from the seabed and can be visibly assessed. Similarly, should material of high archaeological importance be reported through the bespoke Protocol for

Archaeological Discoveries, an archaeological watching brief could be instituted, as detailed in a works-specific Method Statement.

- 1.9.83 The Method Statement, which will be based on the specifics in this outline archaeological OWSI and will be undertaken in line with the Standard and Guidance for an archaeological watching brief (Chartered Institute for Archaeologists, 2020c) and should be approved by the Archaeological Curator(s) prior to works being undertaken.

### **Watching brief recording procedures**

- 1.9.84 Excavated surfaces and up-cast material will be inspected by the Archaeological Contractor. Any finds will be collected and allocated a record number and their position will be logged.
- 1.9.85 Archaeological features or structures will be examined and/or excavated. A sufficient sample of each layer/feature type will be investigated to elucidate the date, character, relationships and function of the feature/structure.
- 1.9.86 Recording will include written, drawn, and photographic elements as conditions allow.
- 1.9.87 The findings of any watching briefs will be compiled as an Archaeological Report (see section 1.14) consistent with The Crown Estate's Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (2021) section on reporting.

### **Archaeological Assessment of Non-Archaeological Surveys**

- 1.9.88 Prior to construction, ROV or diver surveys may be undertaken to refine design parameters/layout, for ecological assessment, UXO investigation, obstruction inspection and/or removal, or other non-archaeological purposes. During the operational stage, surveys may be undertaken for repair or maintenance work. Surveys may also be taken prior to decommissioning.
- 1.9.89 The data gathered for other purposes could be used to ground-truth targets, for example, those that it may not be possible to avoid, allowing for their characterisation and assessment of archaeological significance. Such data may also be used to provide additional information on known shipwrecks or aircraft crash sites that have been provided with AEZs or geophysical anomalies/seabed recorded features, to aid identification or to clarify significance.
- 1.9.90 Where a previously unknown heritage asset is discovered, or a known heritage asset proves to be more significant than foreseen at the time of application, the project will inform the MMO, as advised by Historic England, and will agree a solution that protects the significance of the new discovery, so far as is practicable, within the project parameters.
- 1.9.91 The Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) states that the Client should seek archaeological input at the planning stages of any proposed diver/ROV surveys undertaken primarily for engineering, ecological, or other purposes, in order to maximise the potential benefits. If appropriate, a separate Method Statement could be produced, to maximise the survey results for archaeological assessment.

1.9.92 Archaeological input could include:

- details of AEZs within the Offshore Scheme draft Order Limits. Should there be any potential for impact, these should be incorporated into the survey for the purposes of archaeological review;
- details of the A2 geophysical anomalies and additional seabed features within the Offshore Scheme Order Limits. Should there be any potential for impact, these should be incorporated into the survey for the purposes of archaeological review;
- the archaeological potential of areas where no existing sites and/or anomalies are yet known;
- the type and level of ROV/diver positioning, video/still recording to be utilised;
- the use of laser siting to provide a scale for seabed features; and
- the provision of clear guidance on the types of sites and finds that are to be reported and recorded, and the level of recording required for sites of archaeological potential.

1.9.93 These surveys could be used to validate, alter or remove existing AEZs, in conjunction with discussions with the Archaeological Curator(s), or to identify and characterise material on the seabed, for example A2 geophysical anomalies or unexpected discoveries. Should any wreck or aircraft material be discovered, the RoW and JCCC will be contacted respectively.

1.9.94 Archaeological advice in the development of the survey methodology is particularly important in relation to the large number of A2 anomalies that are magnetic anomalies without any associated material visible on the seabed. If these anomalies will potentially be impacted, they will need to be effectively identified and accurately positioned. Therefore, it is recommended that any ROV be equipped with a small dredge and excavating arm to expose buried material.

1.9.95 Data collected should be reviewed by an appropriately qualified and experienced archaeologist. The assessment will include any investigation reports, video stills, video data, blue view sonar or other geophysical data, and the location and nature of any obstructions encountered.

1.9.96 The results of the archaeological assessment need to be disseminated as described in this outline OWSI. The reporting will include the investigative and visual outcomes, which can provide insightful and significant information.

1.9.97 Should any sensitive sites come to light, management plans will be put in place, through consultation with the offshore Archaeological Curator, as additional information is gathered.

### **On-board watching brief on non-archaeological diver/ROV surveys**

1.9.98 Where the primary objectives of ROV or diver survey are non-archaeological, but may also contribute to archaeological objectives, consideration may be given to having the Retained Archaeologist (or the Archaeological Contractor, if appointed), present during the surveys. For example, when surveying sites of archaeological interest or in areas of high archaeological potential. If an archaeologist is not present, training may be provided during the kick-off meeting to ensure information collected is relayed back to the Retained Archaeologist for advice.

- 1.9.99 The presence of an archaeologist, either as an observer(s) or participating diver(s), could optimise archaeological results and thereby reduce the need for repeat survey. However, their inclusion will only occur when their input has been considered appropriate and proportionate, and has been agreed through following consultation with between the Client and the Archaeological Curator(s).

### **Archaeological review of data collected by non-archaeological diver/ROV surveys**

- 1.9.100 All data, including the list of targets, target investigation reports and video footage, should be made available for review by the Retained Archaeologist (or an Archaeological Contractor with appropriate expertise).
- 1.9.101 When the data is received, the Retained Archaeologist (or Archaeological Contractor, if appointed), should review any target investigation reports and associated photographs of each site. This review will identify, as accurately as possible, any features of known or possible archaeological interest. Should the material on the seabed appear to be of archaeological potential or should the target investigation reports and photographs not provide sufficient data for assessment, the diver/ROV survey video will also be reviewed.
- 1.9.102 If the review of data collected by diver/ROV survey identifies sites of archaeological significance that will be subject to impact during construction, then the Retained Archaeologist will propose the best way to move forwards, and will work with the Client to discuss with the Archaeological Curator(s) the extent of further requirements.

### **Potential Economic Benefits to Local Community**

- 1.9.103 East Suffolk Council seek to *“be ambitious in growing the District’s economy, in particular recognising the opportunities presented by the Port of Felixstowe, the energy sector and key transportation routes, boosting the delivery of homes to contribute to addressing the national housing shortage and responding to needs for a greater mix of homes and increasing the delivery of affordable housing, whilst improving infrastructure provision and conserving our natural, built and historic environment”* (East Suffolk Council, 2020, p. 2).
- 1.9.104 Meanwhile, Thanet District Council aspires for *“a sustainable, balanced economy with a strong focus on advanced manufacturing, emerging technologies, tourism, culture and leisure, supported by the three thriving coastal towns”* (Thanet District Council, 2020, p. 13).
- 1.9.105 Therefore, should any heritage assets of interest be discovered during surveys or revealed as unexpected discoveries, they have the catalyst to increase diver tourism in both areas, and therefore they should be managed and published appropriately, to promote local economic development.
- 1.9.106 In this way, the Proposed Project has the potential to enable the marine historic environment to be promoted and enjoyed as a recreational resource, while providing tangible social and economic benefits for the local community.
- 1.9.107 Additionally, the results of any survey work will be reported on by the Retained Archaeologist and these results will be made publicly accessible through the National Marine Heritage Record (NMHR) and Historic Environment Record (HER) datasets, and therefore will be available for the wider community.

## 1.10 Post-Construction Mitigation

### Post-Construction Monitoring

- 1.10.1 Archaeological Method Statements will be developed for post-construction monitoring by the Retained Archaeologist and agreed through discussions with the Archaeological Curator(s). They will include provision for the archaeological assessment of post-construction monitoring survey data, particularly in relation to AEZs and A2 geophysical anomalies in areas of potential impact from the development (either through direct or indirect impact), as well as areas or sites where unexpected discoveries of archaeological interest were made during development works, for instance assets that prove to be more archaeologically significant. The work will also likely include areas of high archaeological potential, areas of scour, or other areas of interest as set out in the offshore archaeological OWSI.
- 1.10.2 With the implementation of the recommended mitigation, AEZs, A2 geophysical anomalies and other additional seabed features will be avoided, and therefore no impact from the construction works will have occurred to known archaeological receptors (maritime or aviation) and/or anomalies of likely/possible anthropogenic origin during seabed preparation and construction works. However, post-construction monitoring (particularly for AEZs) is recommended to confirm and demonstrate that impacts have been as negligible as anticipated. Monitoring will be confirmed and undertaken in liaison between the Archaeological Curator(s), Client and Retained Archaeologist.

### Mitigation for Operations and Maintenance

- 1.10.3 The mitigation outlined in this outline offshore OWSI will continue to be implemented through the operations and maintenance phase. In particular:
- AEZs will be retained, and no works that impact the seabed will be undertaken within them;
  - A2 geophysical anomalies and other additional seabed features (that were located beyond the boundary of the geophysical survey area or were not included in the geophysical survey assessment due to the detail in the UKHO record indicating that the site relates to a modern vessel), where possible, will be micro-sited around or avoided subject to additional investigation and appropriate mitigation where avoidance is not possible, including by jack-up legs/platforms, anchors and any operations and maintenance works on the seabed;
  - should geophysical and/or geotechnical surveys be planned, the Retained Archaeologist should be consulted to determine if archaeological objectives can be met; and
  - a Protocol for Archaeological Discoveries will be implemented for the discovery of any unexpected archaeological material throughout the operations and maintenance phase.
- 1.10.4 Where relevant, Method Statements will be produced for operations and maintenance activities (such as cable replacement, seabed clearance, cable protection or other activities) that may impact the seabed. These documents should be submitted to the relevant Archaeological Curator(s) for review and comment at least twenty working days prior to the planned commencement of any works occurring, to allow sufficient time for



the review and any amendments to be completed and agreed. Method Statements will include details about all AEZs (including any implemented or amended during the pre-construction or construction phases), A2 anomalies, additional seabed features and the Protocol.

## Mitigation for Decommissioning

- 1.10.5 As decommissioning works will be planned in the distant future, and may come under a new EIA process, it is not possible to provide specific mitigation details. However, mitigation will likely comprise a continuation of that outlined for operations and maintenance activities, i.e., retaining AEZs, avoiding A2 anomalies and additional seabed features and establishing a Protocol for Archaeological Discoveries for any unexpected archaeological discoveries.

## 1.11 Finds Recovery

### General

- 1.11.1 All archaeological finds recovered from marine contexts will be recorded in accordance with the ClfA's Universal guidance for archaeological field evaluation (Chartered Institute for Archaeologists, 2023b) and Standard and guidance for the collection, documentation, conservation and research of archaeological material (Chartered Institute for Archaeologists, 2020d).
- 1.11.2 Although finds of modern date (19th century or later) may be recorded on site and not retained, depending on the research objectives of the Proposed Project, any finds relating to possible aircraft material or classified as 'wreck' under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) must be retained and reported to the Receiver of Wreck with 28 days and the JCCC, if applicable.
- 1.11.3 Any discoveries that are potentially sensitive should be kept confidential between the Client, their subcontractors, the Retained Archaeologist and the Archaeological Curator(s) as the remains may be targeted for illegal salvage activities if knowledge of such discoveries becomes widespread.
- 1.11.4 Any finds from marine contexts that require conservation or specific storage conditions will be dealt with immediately in line with First Aid for Finds (Watkinson & Neal, 1998) and First Aid for Underwater Finds (Robinson, 1998). A full record will be made of any treatment given. Any further conservation beyond first-aid must be approved by the Archaeological Curator(s) and, where applicable, the Receiver of Wreck prior to commencement. Where appropriate, soil samples may be taken and sieved to aid in finds recovery.
- 1.11.5 Finds and other items of archaeological interest recovered offshore in the course of investigation are the property of The Crown Estate as the landowner, with the exception of: human remains; 'wreck' covered by the obligations of the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21, 1995); or material covered by the Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35, 1986).

### Human Remains

- 1.11.6 In the event of discovering human remains (articulated or disarticulated, cremated or unburnt), the development activity during which the material was discovered, and that

could lead to the further disturbance/removal of remains, will cease and a TEZ will be implemented. Where practical, the deposits will be left *in situ*, covered and protected (The Crown Estate, 2014, p. 49).

- 1.11.7 The Retained Archaeologist (or archaeological contractor, if applicable) will inform the Client who will, in turn, alert the local Police. If the Police do not propose to investigate the remains, a Ministry of Justice licence will need to be obtained.
- 1.11.8 Further liaison with the Archaeological Curator(s), Client, Retained Archaeologist and archaeological contractor (if applicable) will occur to decide next steps including determining the methodology for the excavation, removal or sampling of further material, if appropriate. A Ministry of Justice licence will need to be obtained for works to continue or the process set out in the DCO may need to be followed (this includes cases where remains are to be left *in situ*).
- 1.11.9 Where deemed appropriate, human remains will be fully recorded, excavated and recovered in compliance with the Ministry of Justice licence. Furthermore, all excavation and post-excavation will be in accordance with the Retained Archaeologist's protocols with any directions which may be given by the Secretary of State, and current guidance documents (Cremation: Excavation, Analysis, and Interpretation of Material from Cremation-Related Contexts, 2013) and the standards set out in ClfA Technical Paper 13 Excavation and post-excavation treatment of cremated and inhumed remains (Excavation and post-excavation treatment of cremated and inhumed human remains. ClfA Technical Paper No 13, 1993). Appropriate specialist osteological guidance and, if required, site visits will be undertaken.
- 1.11.10 The final deposition of human remains, subsequent to the appropriate level of osteological analysis and other specialist sampling/examinations, will follow the requirements set out in the DCO or Ministry of Justice licence as applicable.

## Treasure

- 1.11.11 The Retained Archaeologist will immediately notify the Client and the onshore or offshore Archaeological Curator(s) on discovery of any material covered, or potentially covered, by the Treasure Act 1996 (Treasure Act 1996 c.24). All information required by the Treasure Act (i.e., finder, location, material, date and associated items) will be reported to the Coroner within 14 days. Items falling under the Treasure Act will be removed from the site by the Retained Archaeologist and stored in a secure location, pending a decision by the Coroner.
- 1.11.12 Material recovered below Mean High Water Springs to 12 nm may be regarded as 'wreck' under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21).

## Aircraft

- 1.11.13 Under the Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35), it is an offence to tamper with, damage, move or unearth any items related to a military aircraft crash site, unless the Ministry of Defence has issued a licence authorising such an activity. Consequently, anyone wishing to recover a military aircraft or excavate a military aircraft crash site in the UK is required to obtain a licence from the JCCC. A license is required irrespective of whether the aircraft was in the service of another nation's armed forces.
- 1.11.14 Application for a licence, and any subsequent work, should be undertaken in line with the Ministry of Defence's Crashed Military Aircraft of Historical Interest: Licensing of

Excavations in the UK: Notes for Guidance of Recovery Groups (Defence Business Services, 2014). Should human remains be discovered, they should not be touched, but must be reported immediately to the Ministry of Defence (as per paragraph 15 of the guidance).

- 1.11.15 Any finds that are suspected of being military aircraft will be reported immediately to the Retained Archaeologist. In the case of a military aircraft being investigated under licence, any human remains will be reported immediately. Discoveries of aircraft material must be reported to the MoD, JCCC and to the Receiver of Wreck within 28 days of discovery.
- 1.11.16 For the archaeological assessment of aircraft remains, the Retained Archaeologist will refer to available guidance from Archaeological Curator(s), such as Military Aircraft Crash Sites: Archaeological Guidance on their significance and Future Management (English Heritage, 2002).

## Wreck

- 1.11.17 There is a legal obligation under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) that all material identified as 'wreck' must be reported to the Receiver of Wreck within 28 days of discovery.
- 1.11.18 According to section 255 of the Act, 'wreck' can be defined as "*jetsam, flotsam, lagan and derelict found in or on the shores of the sea or any tidal water*" that have come from a ship, aircraft or hovercraft (vessel) and includes cargo and equipment.
- 1.11.19 Not only does the legislation cover wreck material recovered from within UK territorial waters (12 nautical miles), but also material that has been brought into UK territorial waters from elsewhere. The Receiver of Wreck's remit does not extend to lakes or rivers beyond tidal reach.
- 1.11.20 Wreck material is reported to the Receiver of Wreck at by completing a 'Report of wreck and salvage' form (MSF 6200) or completing their online recording form (<https://www.gov.uk/report-wreck-material/reporting-wreck-material>). A droit number will be assigned to each report of wreck, which could include single or multiple objects from one location/wreck site.
- 1.11.21 The Receiver of Wreck's remit is to research and establish who owns the wreck and to liaise with the finder, owner or other interested parties including archaeologists and museums.
- 1.11.22 All material reported as wreck must be retained and held on indemnity to the Receiver of Wreck's orders whilst the droit remains open, which could extend beyond a year. The location(s) of such storage will be confirmed following discussion between the Client and/or their appointed representatives and the Retained Archaeologist. The Receiver of Wreck must be made aware of these storage locations and any further movement of reported material.
- 1.11.23 If the Receiver of Wreck has not found ownership of any recovered wreck material within one year, the material becomes 'unclaimed' and as such the property of the Crown or grantee of the Crown. The Receiver of Wreck can then dispose of these items on behalf of the Crown. For material that is of historical or archaeological importance, the Receiver of Wreck will try to ensure that it is offered to an appropriate museum. If an appropriate museum or institution is not found, then the Receiver of Wreck may offer the material to the finder in lieu of salvage. Due to the longevity of this process, it is essential that the Client or their representative are fully aware of the obligations of the

Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) and frequently liaise with the Receiver of Wreck until a decision on ownership has been made and the droits can be formally closed.

- 1.11.24 If a museum or suitable institution is found by the Retained Archaeologist, this should be confirmed through liaison between the Client/their representative (as the named finder on the Report of Wreck and Salvage) with the Receiver of Wreck. It is furthermore recommended that droits are formally closed by the Receiver of Wreck prior to material being accessioned by a museum.

## Ordnance

- 1.11.25 It is expected that the Proposed Project will have a programme of UXO clearance incorporated into its construction plan to be conducted by suitably qualified Explosive Ordnance Disposal (EOD) company.
- 1.11.26 If items of ordnance are discovered, they will be treated with extreme care. Company Health and Safety policies and established operational procedures should always take priority over archaeological reporting of munitions and ordnance.

## Asbestos

- 1.11.27 It is possible that aviation or maritime material from the 20th century could contain asbestos, particularly in relation to insulation, electrical cables, doors, wall and ceiling panels, ropes, gaskets and seals. Asbestos has the potential to cause serious diseases, such as pleural diseases, asbestosis, pulmonary fibrosis, mesothelioma and lung cancer, and therefore the potential for exposure must be considered.
- 1.11.28 The potential risk of asbestos increases if objects are dry, disturbed and/or degrading. Therefore, any material suspected of being asbestos containing material (ACM) should be kept wet and undisturbed, and specific procedures should be followed to minimise risk.
- 1.11.29 Should further inspection, assessment or sampling need to be carried out, a Risk Assessment will be prepared. Should an object need to undergo further testing, this must be undertaken by an accredited/licenced external specialist.

## 1.12 Environmental Sampling

### General

- 1.12.1 All sampling undertaken for archaeological purposes will be undertaken following the Retained Archaeologist's in-house guidance, which should adhere to the principles outlined in Historic England's guidance (English Heritage, 2011; Historic England, 2015).

### Site-Specific Sampling Strategy

- 1.12.2 All contexts suitable for environmental sampling will be considered for sampling. A site-specific sampling strategy (SSSS) may be recommended for the Proposed Project and can be prepared in a separate document to be used alongside this OWSI. Initially informed by prior works or predicted conditions, the strategy will be developed and

adapted as the excavation continues, with support provided by specialist site visits and/or phone advice as appropriate.

- 1.12.3 The aim of the strategy will be to target archaeological and landscape features to address the aims and objectives of the Proposed Project, with reference to local or regional research agendas if appropriate. The SSSS is intended to guide the retrieval of paleoenvironmental evidence during the site investigations with the purpose of addressing their site-specific objectives. The SSSS will be prepared following the Retained Archaeologist's in-house guidance, which should adhere to the principles outlined in Historic England's guidance (English Heritage, 2011; Historic England, 2015). Where applicable, the Archaeological Curator(s) should be included in any discussions.
- 1.12.4 De-selected material from samples will be disposed of after processing and post-excavation recording. All processed material will be adequately recorded to the appropriate level before de-selection.

## Sampling Methods

- 1.12.5 Bulk environmental soil samples, for the recovery of plant macrofossils, wood charcoal, small animal bones and other small artefacts, will be taken as appropriate from well-sealed and dateable contexts or features.
- 1.12.6 If waterlogged or mineralised deposits are encountered, an environmental sampling strategy will be agreed with the Archaeological Curator(s) as appropriate. Specialist guidance will be provided by the Retained Archaeologist, with site visits undertaken if required.
- 1.12.7 Any samples undertaken for archaeological purposes will be of an appropriate size; typically 40 litres for the recovery of environmental evidence from dry contexts and 10 litres from waterlogged deposits.
- 1.12.8 Following specialist advice, other sampling methods such as monolith, Kubiena or contiguous small bulk (column) samples may be employed to enable investigation of deposits with regard to microfossils (e.g., pollen, diatoms) and macrofossils (e.g., molluscs, insects), soil micromorphological or soil chemical analyses.

## 1.13 Post-Excavation Methods and Reporting

### Stratigraphic Evidence

- 1.13.1 All written and drawn records, and surveyed data from fieldwork will be collated and checked.
- 1.13.2 Stratigraphic groups will be defined, and preliminary phasing undertaken using stratigraphic relationships, finds spot-dates and any other relevant information. The character, range, date, nature, condition and significance of the stratigraphic evidence will be assessed and reported on. Issues surrounding stratigraphic interpretation (e.g., due to truncation, redeposition, residuality) and phasing (e.g., due to low level of finds) will be identified.



## Finds Evidence

- 1.13.3 All retained finds will, as a minimum, be weighed (where applicable), identified and given a unique identifier. Samples of surface residues may be retained and assessed, following advice from a conservator and environmental archaeologist. Finds will then be recorded to a level appropriate to the aims and objectives of the investigation. The report will include a table of finds with relevant details and a description. Recording and reporting will conform to the Type 2 (Appraisal) level according to the ClfA's Toolkit for Specialist Reporting (Chartered Institute for Archaeologists), to include appropriate quantification, characterisation and assessment of significance and potential.
- 1.13.4 Metalwork from stratified contexts may be x-rayed and, along with other fragile and delicate materials, stored in a stable environment. The x-raying of objects and other conservation needs will be undertaken by the Retained Archaeologist's in-house conservation staff, or by another approved conservation centre.
- 1.13.5 Finds from a marine context will be placed in containers of tap water and stored out of direct sunlight. Larger items will be kept damp with the use of capillary matting, until a solution on storage or next-steps can be ascertained.
- 1.13.6 Artefacts and other finds that do not require specific conservation measures will be suitably bagged and boxed in accordance with the guidance given by the relevant museum and generally in accordance with the standards of the ClfA (Chartered Institute for Archaeologists, 2020e).

## Finds Conservation and Storage

- 1.13.7 All recovered materials of archaeological interest, from land or underwater, 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 an appropriate level of expertise, with advice from appropriate specialists. The Retained Archaeologist or an Archaeological Contractor with appropriate expertise will implement recommendations arising from the assessment. If no special conservation measures are recommended, finds will be conserved, bagged, boxed and stored in accordance with industry guidelines (Chartered Institute for Archaeologists, 2020e).
- 1.13.8 If conservation is to be undertaken, Conservation Assessments must be confirmed with the Receiver of Wreck where material has been reported as 'wreck' under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21).

## Environmental Evidence

- 1.13.9 Bulk environmental soil samples selected for archaeological purposes will be processed by standard flotation methods. The flot will be retained on a 0.25 mm mesh, with residues fractionated into 5.6/4 mm, 2 mm, 1 mm and 0.5 mm and dried if necessary. The coarse residue fraction (>5.6/4 mm), and the fine fraction when appropriate, will be sorted and discarded, with any finds recovered given to the appropriate specialist. The flot will be retained on a 0.25 mm mesh and scanned to assess the environmental remains present and their preservation. Unsorted fine residues will be retained until after any analyses and discarded following final reporting.
- 1.13.10 Any waterlogged or mineralised samples will be processed by standard waterlogged flotation methods.



1.13.11 Recording and reporting will conform to the Type 2 (Appraisal) level according to the ClfA’s Toolkit for Specialist Reporting (Chartered Institute for Archaeologists), to include appropriate quantification, characterisation and assessment of significance and potential.

## Palaeoenvironmental Assessment and Scientific Dating

### Stage 3 assessment

- 1.13.12 In accordance with the staged approach outlined in Table 1.4, where appropriate deposits are identified in retained cores at Stage 2, and which have the potential to contribute to the overarching aims and objectives of the geoarchaeological investigations, Stage 3 palaeoenvironmental assessment and dating may be recommended.
- 1.13.13 This assessment may include a suite of complementary techniques comprising targeted and proportionate assessment of pollen, diatom, ostracod, plant macrofossil, molluscan and coleopteran remains, supported by radiocarbon and/or luminescence dating. Multiple techniques are typically assessed in accordance with Historic England guidelines on good practice in environmental archaeology (English Heritage, 2011) and geoarchaeology (Historic England, 2015).
- 1.13.14 Detailed recommendations for a Stage 3 assessment will be provided in the report at Stage 2. Should sufficient potential be found to be present at Stage 3, then subsequent palaeoenvironmental analysis (Stage 4) will be implemented.
- 1.13.15 The function of each palaeoenvironmental technique within geoarchaeological investigations is provided in [Table 1.5](#) below.

**Table 1.5 Palaeoenvironmental techniques**

Technique	Deposit required	Sample size/volume	Purpose
Plant macrofossils	Peat and organic-rich sediment	2 cm slice 50% cross section, retaining sufficient material in core for other techniques if required	Local vegetation and environment. Derive suitable material for radiocarbon dating
Pollen	Peat and organic-rich sediment	1 cm <sup>3</sup>	Vegetation and environmental change, human impact
Microscopic charcoal	Utilises pollen samples	-	Natural and anthropogenic fire incidence
Foraminifera	Freshwater and marine minerogenic deposits	~50 g	Past coastal and riverine environments
Ostracod			
Diatom			

Technique	Deposit required	Sample size/volume	Purpose
Radiocarbon dating	Peat and organic-rich sediment	Short-lived terrestrial plant remains (for example, seeds and twigs)	Establish chronological framework
Optically Stimulated Luminescence (OSL)	Minerogenic deposits with sand content	Requires min 10 cm sections through entire core, contained in opaque core-liner	Establish chronological framework

### Stage 4 analysis

- 1.13.16 Should the Stage 3 assessment demonstrate sufficient potential, then full analysis of selected micro- and macro-fossils will be undertaken. Stage 4 may be supported by additional scientific dating (e.g. radiocarbon or luminescence) if required and will result in an account of the successive environments within the coring area, a model of environmental change over time, and an outline of the archaeological implications of the analysis.
- 1.13.17 The results of analysis may lead where appropriate to publication of the results in a suitable journal.

## 1.14 Reporting

### General

- 1.14.1 Following completion of fieldwork and/or the assessment of data, finds and environmental evidence, draft report(s) will be submitted for approval to the Client and the Archaeological Curator(s) for comment. Reports may be issued for individual fieldwork or assessment packages with a final close-out report, or the work summarised in a single final report. Once approved, a final version will be submitted.
- 1.14.2 The report will typically include the following elements:
- a non-technical summary;
  - project background;
  - the aims and objectives;
  - methods of the work undertaken;
  - the results of the work undertaken, for instance a discussion on the finds and environmental remains or the investigative and visual outcomes of a diver/ROV survey including an overall gazetteer;
  - a statement of the potential of the results;
  - proposals for further assessment, analysis and publication;
  - archive preparation and deposition arrangements;
  - appendices;
  - illustrations; and

- references.

- 1.14.3 A copy of the final report(s) will be deposited with Historic England's NMHR and the HERs of Suffolk and Kent, as required. The surveyed spatial digital data (.dxf, ArcGIS Pro feature class or geodatabase) relating to the evaluation will also be deposited there and provided to the Client.

## Publication

- 1.14.4 Information from the Proposed Project should be made publicly available, as this will lead to beneficial effects. The information can then support appreciation and enjoyment of the historic environment on local, regional and national levels, and also enable further academic research and inform marine plans. In addition, dissemination can bring about greater awareness of the historic environment, which can in turn engender local pride.
- 1.14.5 If no further mitigation works are undertaken, a short report on the results of the evaluation(s) will be prepared for publication in a suitable journal, if considered appropriate, and agreed with the Client and the Archaeological Curator(s). There may be confidentiality issues that could delay or prevent publication, which must be taken into consideration.

## OASIS

- 1.14.6 An OASIS (Online AcceS to the Index of archaeological investigationS) online record (Archaeological Data Service, 2023) will be created, with key fields completed, and a .pdf version of relevant reports submitted. Subject to any contractual requirements on confidentiality or containing information regarding the discovery of vulnerable sites, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

## 1.15 Archive Storage and Curation

### Museum

- 1.15.1 Every effort will be made to identify a suitable repository for the archive resulting from the investigations associated with the Proposed Project. If no suitable repository is identified, the Retained Archaeologist or suitable Archaeological Contractor will continue to store the archive, including any finds, but may institute a charge to the Client for ongoing storage beyond a set period.
- 1.15.2 For material reported as 'wreck' under the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21), the Receiver of Wreck, as per their guidance, will research and offer material to an appropriate museum. It should be confirmed as early as possible who will undertake this research, the Receiver of Wreck or the Retained Archaeologist. Deposition of any finds with a museum will only be carried out with the full agreement of the Receiver of Wreck (on behalf of the Crown or grantee of the Crown) or the owner (as confirmed by the Receiver of Wreck). If the Retained Archaeologist is responsible for finding a suitable museum, any associated droits should be closed by the Receiver of Wreck prior to material being accessioned.

## Transfer of Title

- 1.15.3 On completion of the investigation(s) (or extended fieldwork programme), the legal owner of any recovered finds will be encouraged to transfer their ownership to a museum or accredited organisation in a written agreement, with the exception of:
- human remains, which will follow the requirements set out in the DCO or Ministry of Justice licence, as applicable;
  - objects covered by the Treasure Act 1996 (Treasure Act 1996 c.24);
  - aircraft material covered by the Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35) and will therefore be under the ownership of the JCCC of the Ministry of Defence, to transfer their ownership to the museum in a written agreement and in liaison with the Receiver of Wreck; and
  - recovered wreck material covered by the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) as administered by the Receiver of Wreck. Ownership of material will be sought by the Receiver of Wreck for any reported material. Droits associated with recovered material must be formally closed prior to material being accessioned to a museum.

## Preparation of Archive

### Physical archive

- 1.15.4 The physical archive, which may include paper records, graphics, artefacts and ecofacts will be prepared following the standard conditions for the acceptance of excavated archaeological material by a suitable repository, and in general following nationally recommended guidelines (Owens, 1995; Brown, 2011; Archaeological Data Service, 2013; Chartered Institute for Archaeologists, 2020e).
- 1.15.5 The physical archive will usually be deposited within one year of the completion of the Proposed Project, with the agreement of the Client. Where wreck material has been recovered and reported to the Receiver of Wreck, deposition may take longer than a year and only after any droit reports have been closed. Liaison with the Receiver of Wreck and the museum throughout the Proposed Project will allow discussions to occur to arrange for any required accessioning prior to the droits being officially closed.

### Digital archive

- 1.15.6 All digital data produced for the archaeological assessment will be considered part of the primary archive and will accord with the procedures recommended by The Crown Estate, Marine Environment Data and Information Network (MEDIN), Archaeological Data Service (ADS), Dig Digital (DigVentures, 2019) and the accepting institution.
- 1.15.7 Data will be compiled in a format suitable for submission of Monument, Event and Source records for entry into the NMHR dataset (Mariner) and/or the HERs for Suffolk and Kent (terrestrial and inshore).
- 1.15.8 If required by the museum/accepting institution following agreement with the Client, the digital data, or selected digital data, will be deposited with a Trusted Digital Repository, in this instance the ADS, to ensure its long-term curation. Digital data will be prepared following ADS guidelines (Archaeological Data Service, 2013) supported by Dig Digital guidance (DigVentures, 2019) and accompanied by metadata.

- 1.15.9 Full details of the collection, documentation, storage and selection of digital are will be included in the project data management plan (DMP), that will be appended to the final agreed OWSI.

## Selection Strategy

- 1.15.10 It is widely accepted that not all the records and materials (artefacts and ecofacts) collected or created during the course of an archaeological project require preservation in perpetuity. These records and materials will be subject to selection to establish what will be retained for long-term curation, with the aim of ensuring that all elements selected to be retained are appropriate to establish the significance of the project and support future research, outreach, engagement, display and learning activities, i.e., the retained archive should fulfil the requirements of both future researchers and the receiving institution.
- 1.15.11 The relevant Archaeological Curator(s) and the Retained Archaeologist will seek approval from relevant stakeholders (Retained Archaeologist's specialists, other external specialists, the accepting museum and the Archaeological Curator(s)) and agree a policy for the selection, retention and disposal of recovered or excavated material, and confirm requirements in respect of the format, presentation and packaging of archive records and materials. This will be underpinned by national guidelines on selection and retention (Brown, 2011) and generic selection policies (Owens, 1995) and follows the ClfA's Toolkit for Selecting Archaeological Archives (Archaeological Data Service, 2013). Legislative requirements of the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) and Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35) must also be taken into account.
- 1.15.12 Ideally the receiving institution will be notified in advance of any fieldwork. However, due to the nature of marine fieldwork whereby it is often unknown what finds could be recovered, these discussions may need to take place during or even after fieldwork has ended.
- 1.15.13 A general project-specific selection strategy is presented below. Further modifications are expected to be made to the selection strategy as the project progresses; specific review points will be at assessment stage and on project completion prior to final archive preparation.
- 1.15.14 Consultation with all stakeholders regarding project-specific selection decisions will be undertaken throughout the project as necessary, however at a minimum of three project review points:
- data gathering: if any unforeseen discovery on site necessitates an amendment to the proposed collection strategy, or if adjustments are made to any sampling strategy;
  - end of data gathering (assessment stage); and
  - archive compilation.

### 1.15.15 Finds and environmental material

- 1.15.16 Selection, retention and disposal of recovered or excavated material should only occur if the legislative requirements of the Merchant Shipping Act 1995 (Merchant Shipping Act 1995 c.21) and Protection of Military Remains Act 1986 (Protection of Military Remains Act 1986 c.35) are first and foremost fully undertaken and the Receiver of Wreck, Ministry of Defence and other relevant stakeholders including the Archaeological

Curator(s) are involved in any such decisions. Ownership of material must be confirmed prior to any decisions being made on their selection, retention and disposal, which will be undertaken in line with guidance from Brown (Brown, 2011).

- 1.15.17 If material is not accepted by a museum or other organisation and all legislative requirements are fully undertaken, then consideration will be given to the suitability for their use within handling or teaching collections of a relevant museum/organisation or the Retained Archaeologist's associated company, or whether they are of particular interest to the local community. Remaining de-selected material will be disposed of. All such finds/processed material will be adequately recorded to the appropriate level before de-selection.
- 1.15.18 Brown (2011) states that retention is the action of recording all that has been found as well as all decisions that are taken, their justifications and considerations that may lead to any disposal. A key part of selection and retention is ensuring that the assemblage is fully recorded in the site digital archive prior to any disposal being actioned.
- 1.15.19 Documentary and digital archive**
- 1.15.20 Any sensitive data is to be handled according to the Client's/Retained Archaeologist's data policy to ensure it is stored and transferred securely. The identity of individuals will be protected in line with GDPR. If required, data will be anonymised and redacted. Selection and retention of sensitive data for archival purposes will occur in consultation with the Client and relevant stakeholders. Confidential data will not be selected for archiving and will be handled as per contractual obligation. De-selected data will be stored on the Retained Archaeologist's secured servers on offsite storage locations.

## Security Copy

- 1.15.21 In line with current best practice (Brown, 2011), on completion of the project a security copy of the written records will be prepared in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

## Engagement and Social Media

- 1.15.22 While taking into account the suitability of the Proposed Project particularly concerning issues such as confidentiality, it is recommended that in consultation with the Client, possible opportunities to disseminate results and engage with the local community are sought.
- 1.15.23 Public engagement can range from a news item on social media, press releases, open days and volunteer involvement.

## 1.16 Copyright

### Archive and Report Copyright

- 1.16.1 The full copyright of the written/illustrative/digital archive relating to the Proposed Project will be retained by the Retained Archaeologist under the Copyright, Designs and Patents Act 1988 (Copyright, Designs and Patents Act 1988 c.48) with all rights reserved. The Client will be licenced to use each report for the purposes that it was produced in relation to the Proposed Project as described in the specification. The



accepting institution (if found), however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the Copyright and Related Rights Regulations 2003 (The Copyright and Related Rights Regulations 2003 No. 2498). In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.

- 1.16.2 Information relating to the project may be deposited with the ADS, the NMHR and/or the HERs for Suffolk and Kent where it can be freely copied without reference to the Retained Archaeologist for the purposes of archaeological research, or development control within the planning process.

## Third Party Data Copyright

- 1.16.3 This document, any associated reports and the project archive may contain material that is non-Wessex Archaeology copyright (for instance, Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which the Retained Archaeologist will be able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the Copyright, Designs and Patents Act 1988 (Copyright, Designs and Patents Act 1988 c.48) with regard to multiple copying and electronic dissemination of such material.

# References

- AECOM. (2022). *Sea Link: Environmental Impact Assessment Scoping Report*. National Grid. Retrieved July 09, 2024, from <https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN020026/documents>
- Archaeological Data Service. (2013). Retrieved July 12, 2024, from *Caring for Digital Data in Archaeology: a guide to good practice*. Archaeology Data Service & Digital Antiquity Guides to Good Practice: [REDACTED]
- Archaeological Data Service. (2023). *OASIS: The online system for reporting archaeological investigations and linking research outputs and archives*. Retrieved July 12, 2024, from [REDACTED]
- British Marine Aggregate Producers Association and English Heritage. (2005). *Protocol for reporting finds of archaeological interest. Full text*. Retrieved July 09, 2024, from [REDACTED]
- Brown, D. H. (2011). *Archaeological archives; a guide to best practice in creation, compilation, transfer and curation*. Archaeological Archives Forum.
- Cant, S. (2013). *England's Shipwreck Heritage: from logboats to U-boats*. English Heritage.
- Chartered Institute for Archaeologists. (2020a). *Standard and guidance for historic environment desk-based assessment*. Retrieved July 09, 2024, from [REDACTED].pdf
- Chartered Institute for Archaeologists. (2020b). *Standard and guidance for nautical archaeological recording and reconstruction*. Retrieved July 09, 2024, from [REDACTED].pdf
- Chartered Institute for Archaeologists. (2020c). *Standard and guidance for an archaeological watching brief*. Retrieved July 09, 2024, from [REDACTED]
- Chartered Institute for Archaeologists. (2020d). *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. Retrieved July 11, 2024, from [REDACTED]
- [REDACTED]. *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. Retrieved July 11, 2024, from [REDACTED]
- [REDACTED] (2023a). *Universal guidance for archaeological excavation*. Retrieved July 09, 2024, from [REDACTED].pdf
- Chartered Institute for Archaeologists. (2023b, December). *Universal guidance for archaeological field evaluation*. Retrieved July 09, 2024, from [REDACTED].pdf
- Chartered Institute for Archaeologists. (n.d.). *Toolkit for Specialist Reporting*. Retrieved July 16, 2024, from [REDACTED].pdf
- Copyright, Designs and Patents Act 1988 c.48*. (1988). Retrieved July 16, 2024, from <https://www.legislation.gov.uk/ukpga/1988/48/contents>
- Defence Business Services. (2014). *Crashed Military Aircraft of Historical Interest: Licensing of Excavations in the UK: Notes for Guidance of Recovery Groups*. Retrieved July 11, 2024, from [REDACTED]

- [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/916555/20180514\\_Licence\\_NotesforGuidance\\_2018-3.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916555/20180514_Licence_NotesforGuidance_2018-3.pdf)
- Department for Environment, Food and Rural Affairs. (2009). *Our Seas – A shared resource: High level marine objectives*. Retrieved July 09, 2024, from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/182486/ourseas-2009update.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/182486/ourseas-2009update.pdf)
- Department for Environment, Food and Rural Affairs. (2019). *Goodwin Sands Marine Conservation Zone*. Retrieved July 09, 2024, from <https://assets.publishing.service.gov.uk/media/5f50fa2d8fa8f535b7ed3f6c/mcz-goodwin-sands-2019.pdf>
- DigVentures. (2019). *Dig Digital - A Guide to Managing Digital Data generated from Archaeological Investigations*. Retrieved August 19, 2024, from Chartered Institute for Archaeologists: [REDACTED] df
- East Suffolk Council. (2020). *Suffolk Coastal Local Plan Adopted 2020*. Retrieved July 09, 2024, from <https://www.eastsuffolk.gov.uk/assets/Planning/Planning-Policy-and-Local-Plans/Suffolk-Coastal-Local-Plan/Adopted-Suffolk-Coastal-Local-Plan/East-Suffolk-Council-S>
- English Heritage. (1998). *Identifying and Protecting Palaeolithic Remains: Archaeological Guidance for Planning Authorities and Developers*. Swindon: English Heritage.
- English Heritage. (2000). *Managing Lithic Scatters: Archaeological Guidance for planning authorities and developers*. Swindon: English Heritage.
- English Heritage. (2002). *Military Aircraft Crash Sites: Archaeological guidance on their significance and future management*. Swindon: English Heritage.
- English Heritage. (2008). *Conservation Principles, Policies and Guidance for the sustainable management of the historic environment*. Retrieved July 09, 2024, from <https://historicengland.org.uk/images-books/publications/conservation-principles-sustainable-management-historic-environment/conservationprinciplespoliciesandguidanceapril08web/>
- English Heritage. (2011). *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition)*. Swindon: English Heritage.
- Gribble, J., & Leather, S. (2011). *Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector*. Southampton: Emu.
- Historic England. (2015). *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. Retrieved July 09, 2024, from <https://historicengland.org.uk/images-books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/heag067-geoarchaeology/>
- Historic England. (2017). *Ships and Boats: Prehistory to Present - Selection Guide*. Retrieved July 09, 2024, from <https://historicengland.org.uk/images-books/publications/dsg-ships-boats/heag143-ships-and-boats-prehistory-to-present-sg/>
- Historic England. (2020). *Deposit Modelling and Archaeology Guidance for Mapping Buried Deposits*. Retrieved July 09, 2024, from <https://historicengland.org.uk/images-books/publications/deposit-modelling-and-archaeology/heag272-deposit-modelling-and-archaeology/>
- Historic England. (2021). *Commercial Renewable Energy Development and the Historic Environment - Historic England Advice Note 15*. Retrieved July 09, 2024, from <https://historicengland.org.uk/images-books/publications/commercial-renewable-energy-development-historic-environment-advice-note-15/heag302-commercial-renewable-energy-development-historic-environment/>
- Historic England. (2023). *Curating the Palaeolithic*. Swindon: Historic England.

- Joint Nautical Archaeology Policy Committee. (2006). *Code of Practice for Seabed Developers*, Joint Nautical Archaeology Policy Committee. Retrieved July 09, 2024, from [REDACTED]
- Land Use Consultants. (2017). *Historic Seascape Characterisation (HSC): Consolidating the National HSC Database*. Retrieved July 09, 2024, from <https://doi.org/10.5284/1046273>
- Landward Research Ltd and Wessex Archaeology. (2024). *North Sea Prehistory Research and Management Framework*. Retrieved July 09, 2024, from Research Frameworks Network: [REDACTED]
- Maritime Archaeological Research Framework. (2023). *A Maritime Archaeological Research Agenda for England*. Retrieved July 09, 2024, from Research Frameworks Network: [REDACTED]
- McKinley, J. I. (2013). Cremation: Excavation, Analysis, and Interpretation of Material from Cremation-Related Contexts. In S. Tarlow, & L. Nilsson Stutz, *The Oxford Handbook of the Archaeology of Death and Burial* (pp. 147-171). Oxford: Oxford University Press.
- McKinley, J. I., & Roberts, C. (1993). *Excavation and post-excavation treatment of cremated and inhumed human remains*. ClfA Technical Paper No 13.
- Merchant Shipping Act 1995 c.21. (1995). Retrieved July 09, 2024, from <https://www.legislation.gov.uk/ukpga/1995/21/contents>
- National Grid. (2023). *Sea Link: Preliminary Environmental Information Report*. Retrieved July 09, 2024, from <https://www.nationalgrid.com/the-great-grid-upgrade/sea-link/document-library>
- Owens, J. (1995). *Towards an Accessible Archaeological Archive. The transfer of archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales*. Society of Museum Archives.
- Oxford Archaeology. (2008). *Guidance for Assessment of Cumulative Impacts on the Historic Environment from Offshore Renewable Energy*. Retrieved July 09, 2024, from [REDACTED].pdf
- Plets, R., Dix, J., & Bates, R. (2013). *Marine geophysics data acquisition, processing and interpretation: Guidance notes*. London: English Heritage.
- Protection of Military Remains Act 1986 c.35. (1986). Retrieved July 09, 2024, from <https://www.legislation.gov.uk/ukpga/1986/35/contents>
- Robinson, W. (1998). *First Aid for Underwater Finds*. Archetype Publications Ltd.
- Thanet District Council. (2020). *Local Plan Adopted July 2020*. Retrieved July 09, 2024, from <https://www.thanet.gov.uk/wp-content/uploads/2018/03/LP-adjusted.pdf>
- The Copyright and Related Rights Regulations 2003 No. 2498*. (2003). Retrieved July 16, 2024, from <https://www.legislation.gov.uk/uksi/2003/2498/contents>
- The Crown Estate. (2014). *Protocol for Archaeological Discoveries: Offshore Renewables Projects*. Retrieved July 09, 2024, from [REDACTED].pdf
- The Crown Estate. (2021). *Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects*. Retrieved July 09, 2024, from [REDACTED].pdf
- The Planning Inspectorate. (2022). *Scoping Opinion: Proposed Sea Link. Case Reference: EN020026*. Retrieved July 09, 2024, from <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020026/EN020026-000027-EN020026-Scoping-Opinion.pdf>
- Treasure Act 1996 c.24*. (1996). Retrieved July 11, 2024, from <https://www.legislation.gov.uk/ukpga/1996/24/contents>

Watkinson, D., & Neal, A. (1998). *First Aid for Finds*. The British Archaeological Trust, Archaeology Section of the UK Institute for Conservation with the Museum of London.

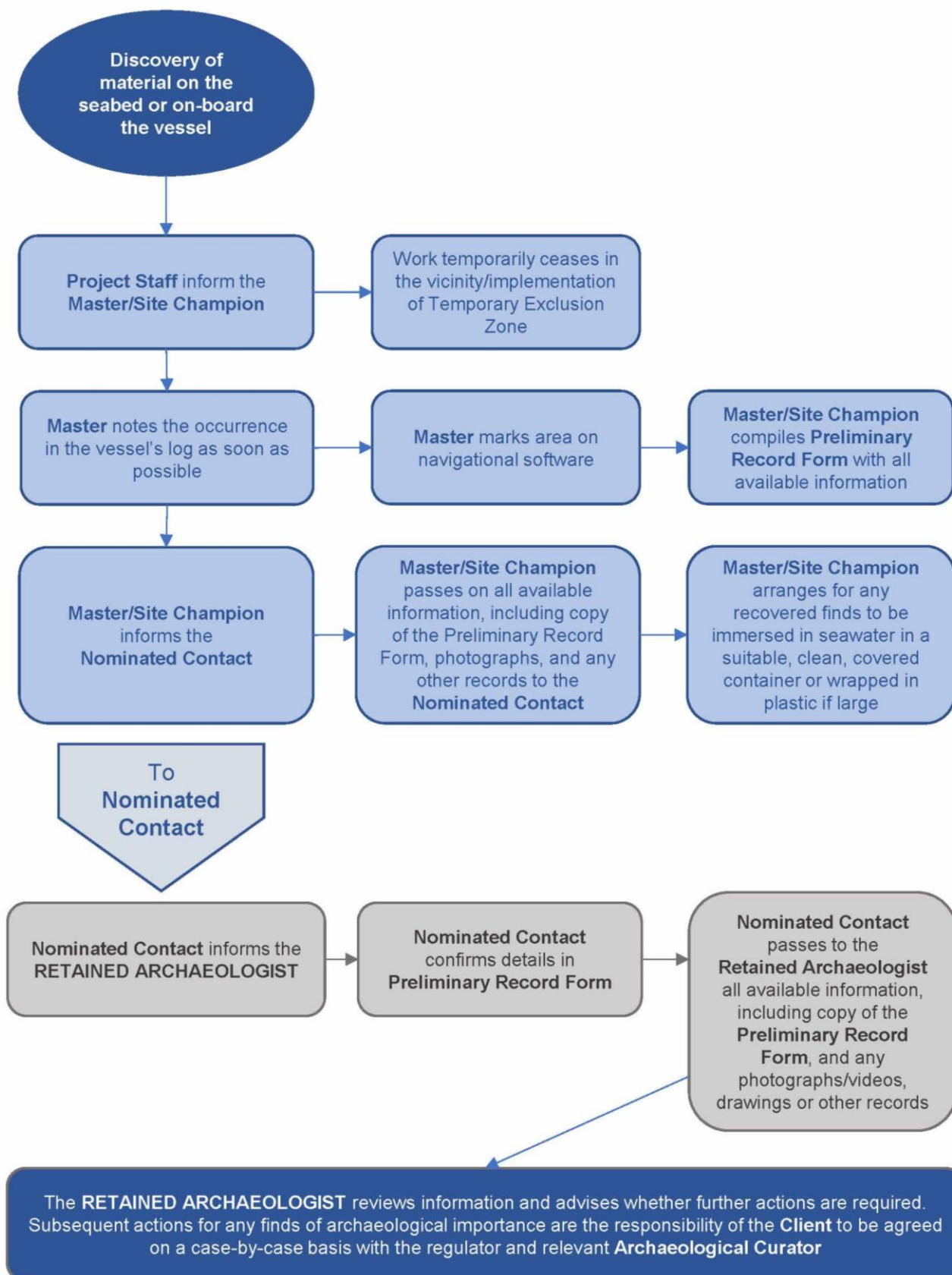
Wessex Archaeology. (2007). *Historic Environment Guidance for the Offshore. Renewable Energy Sector*. Retrieved July 09, 2024, from

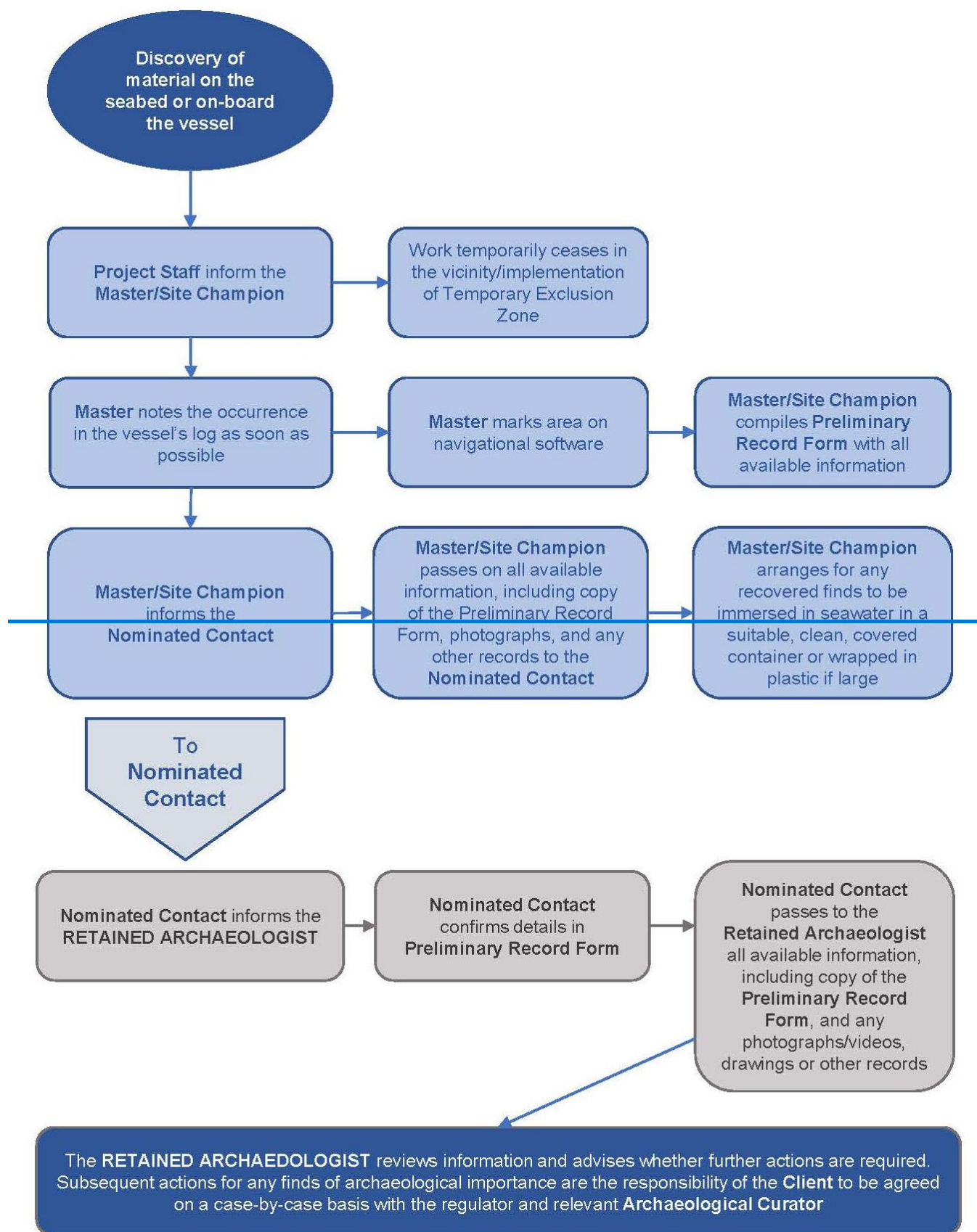


# Appendix A :Figures



## **Annex 1: Protocol for Archaeological Discoveries: actions for discoveries on the seabed and on-board a vessel**





## Annex 2: Preliminary Record Form

Discoveries: Preliminary Record Form	
When and Where?	
Where Found: Wharf <input type="checkbox"/> Vessel <input type="checkbox"/> Seabed (e.g. anomaly) <input type="checkbox"/>	
Name of Finder:	Date Found:
Seabed Development Area:	
Track plot of vessel provided? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Position (if possible):	
Datum:	
Accuracy:	
<input type="checkbox"/> GPS Fix	<input type="checkbox"/> Approximate
<input type="checkbox"/> Centre point	<input type="checkbox"/> Estimated from Sources
What is it?	
Description of the find(s):	
What Next?	
Photographs taken <input type="checkbox"/>	
Treatment Given: Kept Wet <input type="checkbox"/> Kept Dry <input type="checkbox"/>	
Current Location:	
<input type="checkbox"/> Wharf: _____	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Vessel: _____	<input type="checkbox"/> Seabed (for anomalies encountered)
Any other notes:	
Form Complete	
Name of compiler:	
<input type="checkbox"/> Site Champion	<input type="checkbox"/> Vessel Master <input type="checkbox"/> Other _____
Signed:	Date:

National Grid plc  
National Grid House,  
Warwick Technology Park,  
Gallows Hill, Warwick.  
CV34 6DA United Kingdom

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