



Mostyn Energy Park Expansion Project Compensation Works

Marine Written Scheme of Investigation

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Mostyn Energy Park Expansion Project Compensation Works

Marine Written Scheme of Investigation

1 INTRODUCTION

1.1 Project and planning background

1.1.1 Wessex Archaeology have been commissioned by ABP Marine Environment Research (ABPmer) on behalf of Port of Mostyn to prepare a Written Scheme of Investigation (WSI) for the proposed Compensation Works being completed as part of the Mostyn Energy Park Expansion (MEPE) project (**Figure 1**).

1.1.2 These Compensation Works are part of the works associated with Marine Licence CML2283 and are fully outlined in the Compensation Plan (ABPmer 2025). This WSI is specific to these works, as they are planned for spring 2025. A second WSI covering the remaining works under Marine Licence CML2283 including the capital dredging and other construction works will be completed in due course.

1.2 Development description

1.2.1 The Compensation Works cover the scrape back and remediation of two areas of foreshore within the vicinity of the MEPE development area and are designed to remove modern overburden material from the foreshore and support natural mudflat restoration within these areas.

1.2.2 The two areas of proposed works are:

- Mostyn scrape back; and
- Warwick (Marsh Row) foreshore remediation.

1.2.3 The Mostyn scrape back works are located along the western side of the dock and include c. 1.5 hectare (ha) of rubble material extending out from the lower edge of the rock armour (**Figure 2**). The works will utilise an excavator to remove the rubble material and deposit it on the adjacent land.

1.2.4 The Warwick (Marsh Row) remediation works are located to the east of the development area and include the removal of up to 2 m depth of modern overburden material across an area of 1.8 ha. This material is largely made up of rejected concrete breezeblocks and rubble from the demolished breezeblock factory previously present to the south. The excavation will be completed by long-reach excavator and is planned to remove all modern material to expose the underlying natural sediments.

1.3 Construction programme

1.3.1 The works are planned to be completed between May and July 2025, to avoid the summer period when the mudflats are utilised by wading birds.

1.4 Scope of document

1.4.1 This WSI sets out the aims of the offshore investigation, and the methodologies and standards that will be employed by the Client and Retained Archaeologist to implement the



mitigation strategy set out in the Environment Statement (ES) (ABPmer 2022) and comply with the conditions outlined in Marine Licence CML2283. In format and content, it conforms to current best practice and to the guidance outlined in *Management of Research Projects in the Historic Environment* (MoRPHE, Historic England 2015), the Joint Nautical Archaeology Policy Committee *Code of Practice for Development* (JNAPC 2006) and the relevant guidance from the Chartered Institute for Archaeologists (CIfA) (CIfA various), as applicable.

- 1.4.2 This document will be submitted to the Archaeological Curator(s), for approval, prior to the commencement of any investigative work. If elements of the WSI 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 WSI being signed off. This could include methodologies for recovering and reporting material or development works that could impact a protected site under the *Protection of Military Remains Act 1986*.
- 1.4.3 The WSI will come into effect when it has been agreed with the Archaeological Curator(s).

2 THE ARCHAEOLOGICAL ASSESSMENT AREAS

2.1 Co-ordinate system

- 2.1.1 For all aspects of this report, positions are reported in British National Grid coordinate system, with heights calculated as distance above Ordnance Datum (Newlyn), as defined by OSGM15 and OSTN15.

2.2 Archaeological Assessment Areas

- 2.2.1 The Desk-based Assessment (DBA) (Wessex Archaeology 2022) assessed development extents of MEPE Project up to Mean High Water Springs (MHWS) (**Figure 1**) with additional context from the Dee Estuary, as requested by Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) during the previous Scoping phase.
- 2.2.2 An additional search area consisting of the wider Dee Estuary was used for obtaining records from relevant archive databases. This wider search area allows for a greater understanding of the wider archaeological baseline environment, with the dual purpose of enabling any archaeological trends within the region to be recognised and to allow any marine archaeology and cultural heritage assets identified to be represented in a broader archaeological context.

3 AIMS AND OBJECTIVES

3.1 Aims

- 3.1.1 The aim of the WSI is to put in place the archaeological mitigation set out in the ES (ABPmer 2022).
- 3.1.2 The aim of the Protocol for Archaeological Discoveries (PAD) is to reduce any adverse effects of the proposed works on the historic environment by enabling people working on the project to report archaeological finds in a manner that is both convenient to their everyday work and effective regarding curatorial requirements.
- 3.1.3 Discovering and reporting archaeological finds are important because they characterise the archaeology of the seabed and can shed light on past human use of landscape, sea and seabed. The information that such discoveries bring to light can help archaeologists better



understand the past and should therefore be conserved to better protect these aspects of our history on behalf of future generations to whom they might otherwise be lost.

3.2 Objectives

3.2.1 The objectives of this WSI are as follows:

- to fulfil the requirements of the archaeological curators (Heneb, formerly Clwyd-Powys Archaeological Trust (CPAT), RCAHMW) in respect of archaeological monitoring and mitigation works associated with the Compensation Works section of the project;
- to propose measures for the mitigation of unexpected archaeological remains encountered during operation and construction work associated with the project; and
- to establish the reporting and archiving requirements for the archaeological works undertaken during the operational phase, construction, and post-construction monitoring.

3.2.1 The objectives of the PAD are as follows:

- to record material of archaeological potential as it is encountered and/or recovered;
- to assess the archaeological potential of recovered material;
- to provide archaeological advice regarding legal requirements;
- to provide 'first aid' conservation advice for finds and to provide storage advice;
- to establish Temporary Exclusion Zones (TEZs) for discoveries of high archaeological potential; and
- to provide advice on further evaluation or other actions, including potential deposition with a museum, that may be required.

4 ROLES, RESPONSIBILITIES AND COMMUNICATION

4.1 Client

4.1.1 The Client will be responsible for implementing this WSI and the existing mitigation measures, such as Archaeological Exclusion Zones (AEZs).

4.1.2 The Client and/or their representative will commission a Retained Archaeologist for the period of the works covered by the WSI.

4.1.3 The Client and/or their representative will consult the Retained Archaeologist during the planning stages for any further work.

4.1.4 The Client and/or their representative will commission Archaeological Method Statements (see **Section 7**) prior to works being undertaken that may impact the seabed.

4.1.5 The Client and/ or their appointed representatives, or any archaeological body they may appoint to manage the implementation of the marine WSI, will seek curatorial advice from the Archaeological Curator(s) as appropriate.



4.1.6 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. If a new site of archaeological importance is discovered during works, the Archaeological Curator(s) will be contacted immediately.

4.1.1 The Client and/or their appointed representatives will be responsible for administering the obligations of the *Merchant Shipping Act* 1995 with specific regard to reports of wreck and salvage and will ensure that droit reports are dealt with accordingly.

4.1.2 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 Client. This is particularly important between the planning and construction phase, and at any stage if the Retained Archaeologist changes, to ensure consistency.

4.1.3 The Client and/ or their appointed representatives will ensure that Contractors make project personnel aware of this marine archaeological WSI, any AEZs in force, including the PAD.

4.2 Retained Archaeologist

4.2.1 The Retained Archaeologist will oversee archaeological mitigation to provide consistency throughout the project, as required, and will implement the WSI.

4.2.2 The Retained Archaeologist will produce Archaeological Method Statements for works, as appropriate.

4.2.3 The Retained Archaeologist will act as the first contact 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. The Retained Archaeologist will ensure any unexpected discoveries of archaeological material are assessed, as per PAD (see **Section 8.7**), and reported to the relevant curators and stakeholders.

4.3 Archaeological Curator(s)

4.3.1 Any further method statements for archaeological works will be submitted to the Archaeological Curators (CPAT/RCAHMW) for comment/approval one month prior to the planned commencement of surveys/works, in order to allow for sufficient time for the review and any amendments to be completed and agreed.

4.4 Other Key Stakeholders

Receiver of Wreck

4.4.1 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. The Receiver of Wreck is located within the Maritime Coastguard Agency and works with other government departments and heritage organisations.

4.4.2 Wreck material is reported to the Receiver of Wreck via their website: <https://www.gov.uk/report-wreck-material>

4.4.3 The Receiver of Wreck's contact details are as follows:



- Stephen White, Maritime & Coastguard Agency, Spring Place, 105 Commercial Road, Southampton, SO15 1EG. Tel: 0203 817 2575. Email: row@mcga.gov.uk

4.4.4 Further details about how to manage discoveries of wreck material can be found in **Section 9.6**.

Ministry of Defence

4.4.5 Under the *Protection of Military Remains Act 1986*, 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 (MoD), 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.

4.4.6 Further details about how to manage discoveries of aircraft material, including restrictions, licensing, and guidance can be found in **Section 9.5**.

4.5 Archaeological Contractor(s)

4.5.1 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 marine WSI.

4.6 Client Contractor(s)

4.6.1 The responsibility for implementing the marine WSI rests with the Client and their appointed representatives (including their Contractors).

4.6.2 All relevant Contractors engaged in the construction of the project shall:

- familiarise themselves with the requirements of the marine WSI and make them available to all of their staff working on the project (e.g. for PAD briefings and archaeological input into method statements);
- communicate with the Retained Archaeologist in the planning stages of any further survey work, to ensure archaeological objectives are included, as appropriate;
- implement the PAD outlined in **Section 8.7**;
- obey legal obligations in respect of 'wreck' and 'treasure' under the *Merchant Shipping Act 1995* and the *Treasure Act 1996*, respectively;
- obey legal obligations in respect of *Protection of Military Remains Act 1986*.
- respect constraint maps and AEZs;
- assist and afford access to archaeologists employed by the Client; 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.



5 ARCHAEOLOGICAL BASELINE SUMMARY

5.1 Introduction

5.1.1 The DBA (Wessex Archaeology 2022) that supported the ES (ABPmer 2022) collates datasets from the United Kingdom Hydrographic Office (UKHO), national heritage list and the local Historic Environment Records (HERs), as well as secondary sources and previous studies in the area. The UKHO data provide locations and details of known wrecks and obstructions and therefore inform the assessment. The national heritage list data provides details of known monuments. It is maintained by Cadw. The National Monuments Record of Wales (NMRW) maintained by Coflein and derived from information by RCAHMW which often coincide with UKHO data (although some additional sites may also be included), as well as information about Recorded Losses, ships and aircraft that are known to have been lost in the wider area, but whose remains have not yet been located on the seabed, thus providing information about the wider potential for unexpected discoveries. The HER data is focussed mainly on terrestrial monuments and find spots, providing information about the use of the area over time, and can be used to inform discussions on the potential for archaeological discoveries.

5.2 Previous impact

5.2.1 A study completed by CPAT in 2007 into the ports and harbours of north-east Wales (Jones and Owen 2007) noted that the redevelopment of the port in the late 1990s and early 2000s had obscured or removed much of the earlier 18th and 19th century port, with the flushing ponds and main dock area all infilled and the remains of the former isolation hospital removed. They note that the northern end of the “Bull Nose” western breakwater (PRN 26562) on the western side of the port is extant, and their report identifies this area as being of high archaeological potential.

5.3 Previous archaeological work

5.3.1 The project-specific DBA along with some marine geoarchaeological works (Wessex Archaeology 2023) were completed in support of the ES. The Stage 1 geoarchaeological review identified only sediments of low geoarchaeological and archaeological potential for submerged prehistoric landscapes within the marine development area. Alongside the CPAT harbours study (Jones and Owen 2007) and a wider study into wrecks within the Dee Estuary (Michael, accessed April 2025) these reports comprise the full extent of previous investigation which provided details on the archaeological material within the study area.

5.4 Summary of known and potential archaeological assets

Intertidal

5.4.1 A search of records in the UKHO, RCAHMW and HER dataset revealed no recorded archaeological assets within the intertidal zone; however, it is noted that no dedicated archaeological walkover of these areas was completed as part of the DBA or prior works. These areas are noted to be covered with deposits of made ground, in particular the area of Compensation Works in the east of the site known as Warwick (Marsh Row). This area is covered with debris and rejected breezeblocks from the former breezeblock factory that was located immediately south of the intertidal zone.

Palaeogeographic Assessment

5.4.2 There are no known Palaeogeographic sites in the study area, as discussed within the Stage 1 geoarchaeological assessment (Wessex Archaeology 2023).



Palaeogeographic potential

- 5.4.3 The Stage 1 geoarchaeological assessment noted that the sediments within the marine study area have a low potential for encountering prehistoric sites, *in-situ* find spots, palaeoenvironmental evidence and evidence of early use of the coastal / intertidal area due to deposition in full glacial, high-energy fluvial, or modern alluvial environments.

Known maritime

- 5.4.4 There are no known designated maritime sites within the study area.
- 5.4.5 A search of records in the UKHO, RCAHMW and HER datasets revealed 23 sites, two of which are located within the boundaries of the MEPE project, specifically the maintenance dredge area, whilst the remaining 21 sites fall within the wider Dee Estuary.
- 5.4.6 The UKHO record 8159 (**2008**) is that of a tractor that was used as a mussel digger which became embedded in the sand bank. In 1989 this was removed, and the record amended to 'Lifted'.
- 5.4.7 UKHO record 66854 (**2009**) is that of the British sailing vessel *Ant*. This wooden vessel was a Mersey flat (jigger sail) built in 1863. At the time of loss, in February 1907, the vessel was owned by Clare's Lighterage Co, Lancashire, carrying roofing slate from Port Dinorwic to Sankey Bridge. The *Ant* was sheltering from a westerly force 7 gale when it collided with the Liverpool registered steamship *Jane*. The *Ant* subsequently foundered in the Wild Roads, River Dee. In 2019 the grounding position of the wreck was observed as within Mostyn Church, covered by sand and marked with a buoy. The wreck is currently buried in sand and the marker buoy withdrawn, with the position left for filing only.

Known aviation

- 5.4.8 There are no known aviation sites in the study area.

Maritime and aviation archaeological potential

Maritime potential

- 5.4.9 The Dee Estuary has been an important maritime route within written records from the Roman period onwards, and likely would have been during prehistoric times as well. The inundation of Liverpool Bay during the Mesolithic period would have meant that transport by sea became an option and seafaring was becoming more routine by the Neolithic. The Roman occupation in Chester meant that the Dee was extensively used by shipping for both military and civilian material, and this continued into the early medieval and medieval periods as the port of Chester developed.
- 5.4.10 The development of industrial ports within the outer Dee estuary including Rhuddlan and Mostyn itself to aid the export of coal and import of other heavy materials brought a greater number of trading vessels into the Dee, with the increase in potential for wrecking, stranding and loss of equipment that comes with higher numbers of ships. Vessels relating to this and the modern period were more heavily constructed and were built of more durable materials which means their remains may be better preserved compared to vessels of earlier periods. Equally the soft, dense marine sediments of the Dee Estuary are likely to form very good preservation environments, creating an anoxic layer covering shipwreck material which would prevent normal decay.

Aviation potential

- 5.4.11 There remains some potential for aviation related material, either crash sites or scattered material, to be present within the project area, with airfields in use within north Wales,

Cheshire, Merseyside and Lancashire from the early 20th century onwards. While the area was not the most intensively fought over during the Second World War there were training missions from airfields within the area as well as a small number of aerial battles related to attacks on Liverpool, Chester and shipping within Liverpool Bay.

Historic Seascape Characterisation

- 5.4.12 The study area is within MCA 01: Dee Estuary (**Figure 1**). The character area highlighted sandbanks. Sandbanks can provide archaeological potential as there could be buried material in the sandbanks that cannot be detected by geophysical survey. The configuration of the navigation channels happens by great changes at the mouth of the estuaries of the Conway in the Dee inlet. These hazards and the course of the navigation channels are marked by light and fog horns. The entrance of the river Dee consists of a former 18th Century lighthouse to guide ships to a safe river entrance. Moreover, on the sand banks the remains of historic ships have previously been found and this increases the chances of encountering shipwreck material in the area. These precaution measures, the potential for buried material in sandbanks and the past discoveries of historic remains on sandbanks in the river Dee indicates a medium potential for shipwreck material in the area, as it is an area of known navigation hazard, and therefore potential for shipwreck material to be (un)covered by changing and shifting sandbanks (**Figure 1**).
- 5.4.13 Historically, the Dee provided the maritime approaches to the Roman port of Chester, and signs of past industry are visible along the length. Today, the waters are commercially and recreationally fished. These indicate potential for the discovery of marine related finds from the Roman period to the present.
- 5.4.14 The area is characterised by previous industrial activities and has a long-standing importance for trade, defence and occupation. Even in present times, nationally important industries are based near the river Dee area, for example the Irish Sea gas and services plants for the offshore wind farm of Port of Mostyn. This indicates an industrial area with capacity to accommodate further development in areas that already have an industrial character.

6 POTENTIAL IMPACTS

6.1 Direct

- 6.1.1 The ES (ABPmer 2022) identified three direct impacts on marine archaeology: two within the construction phase and one within the operational phase.
- 6.1.2 The construction phase direct impacts are:
- Direct impacts on known and potential marine heritage receptors from construction activities; and
 - Direct impacts on known and potential marine heritage receptors from capital dredging.
- 6.1.3 The operational phase direct impact is:
- Direct impacts on known and potential marine heritage receptors from maintenance dredging.
- 6.1.4 As this specific document is only designed to cover the Compensation Works being completed as part of the project, only the direct impact from construction activities is addressed within it.



6.2 Indirect

6.2.1 The ES (ABPmer 2022) identified two indirect impacts on marine archaeology: one within the construction phase and one within the operational phase.

6.2.2 The construction phase direct impacts are:

- Indirect impacts on marine heritage receptors due to altered sediment or hydrological processes.

6.2.3 The operational phase direct impact is:

- Indirect effects such as changes in local scouring and sedimentation patterns.

6.2.4 As this specific document is only designed to cover the Compensation Works being completed as part of the project, only the indirect impact during the construction phase is addressed within it.

7 METHOD STATEMENTS

7.1.1 This marine WSI provides a framework for further archaeological investigations for the proposed development. All works will be undertaken in accordance with the methodology set out within this WSI and in compliance with the standards outlined by the ClfA (ClfA various), excepting where they are superseded by statements made below.

7.1.2 Detailed archaeological method statements will be produced, as required, for further archaeological works, such as those identified in the 'Scheme of Investigations' section, below.

7.1.3 Each archaeological method statement will correspond to a package of works, for example, implementing the PAD by the retained archaeologist.

7.1.4 Method statements will provide details about:

- form of commission and contractual relationship with the Client;
- relation between the method statement, the WSI 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.

7.1.5 Archaeological method statements will be provided to the Client for comment. On receipt of comments from the Client, the Retained Archaeologist will produce a final method statement addressing these comments.



- 7.1.6 Archaeological 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.

8 SCHEME OF INVESTIGATIONS

8.1 Introduction

- 8.1.1 This **Scheme of Investigations** section provides a brief overview of the mitigation requirements recommended for known and potential archaeological receptors, as presented in the ES (ABPmer 2022) and how these measures will be implemented.

8.2 Standards and guidance

- 8.2.1 The archaeological method statements and specifications in this document are based on archaeological best practice and guidance for ports and harbours development. The principal sources are:

- *Code for Practice for Seabed Development* (Joint Nautical Archaeology Policy Committee (JNAPC) 2006);
- *The Assessment and Management of Marine Archaeology in Port and Harbour Development* (Historic England 2016);
- *Dredging and Port Construction: Interaction with Features of Archaeological or Heritage Interest*, Guidance Document No 124-2014 (PIANC 2014);
- *Universal guidance for archaeological monitoring and recording* (ClfA, 2023a);
- *Universal guidance for archaeological field evaluation* (ClfA 2023b);
- *Universal guidance for archaeological monitoring and recording* (ClfA 2023c);
- *Standard and guidance for nautical archaeological recording and reconstruction* (ClfA 2014e);
- *Caring for Coastal Heritage* (Cadw 1999);
- *Caring for Military Sites of the Twentieth Century* (Cadw 2009);
- *Conservation Principles for the Sustainable Management of the Historic Environment in Wales* (Cadw 2011);
- *Managing the Marine Historic Environment of Wales* (Cadw 2020);
- *Ships and Boats: Prehistory to Present – Designation Selection Guide* (Historic England, 2012); and
- *Our Seas – A Shared Resource: High Level Marine Objectives* (Department for Environment, Food and Rural Affairs (DEFRA), 2009).

8.3 Archaeological exclusion zones

- 8.3.1 The primary mitigation for the protection of known archaeological assets is avoidance. This is achieved through the implementation and monitoring of AEZs, which are proposed for identified high value seabed features of anthropogenic origin (i.e. known and located wrecks).
- 8.3.2 Impact to known and located wrecks will be avoided through the implementation of AEZs. All development and related activities that could impact the seabed are prohibited within the



boundaries of an AEZ, however, AEZs do not restrict remote survey work (e.g. vessels entering the zone to acquire geophysical datasets).

- 8.3.3 If impacts to known and located wrecks cannot be avoided, measures to reduce, remedy or offset disturbance will be agreed with the Archaeological Curator(s) but could include further survey through to complete excavation.
- 8.3.4 At this stage of the project development, no AEZ has been advised or implemented related to these intertidal works. There is potential for TEZs to be implemented during some of the works if an unexpected archaeological discovery is made, and further details on these are within **Section 8.7**.
- 8.3.5 One AEZ has been recommended for the known location of the wreck of the *Ant* within the maintenance dredge pocket. This will be included in the WSI which covers the operation phase of works.

8.4 Archaeological intertidal walkover

- 8.4.1 An intertidal walkover of the two areas to be impacted by the Compensation Works is recommended to be completed prior to any of these works starting. This is to allow for the identification and recording of any archaeological material that is present within or partially exposed beneath the made ground material that is to be removed.
- 8.4.2 The walkover will be completed on a falling tide when the areas are fully exposed to ensure that they can be assessed entirely. Recording of any identified archaeological features or artefacts will include written, drawn, and photographic elements as conditions allow. All works will be completed in line with applicable standards and guidance (ClfA 2023c).
- 8.4.3 It is recommended that a second intertidal walkover is completed following the completion of the Compensation Works (or alternatively as part of additional monitoring works should any significant archaeological material be reported through the PAD (see **Section 8.7**). This second walkover would inspect the newly exposed surface for archaeological material that has been exposed by the Compensation Works. As before, recording of any identified archaeological features or artefacts will include written, drawn, and photographic elements as conditions allow.
- 8.4.4 Intertidal walkovers should be completed by two suitable qualified marine archaeologists to avoid lone working within the intertidal zone. The results of each walkover should be reported to the Archaeological Curator. If an archaeological feature that is assessed to be of significance is identified then further mitigation, either a targeted watching brief, further excavation and recorded or a TEZ, be implemented.

8.5 Archaeological watching brief: intertidal works

- 8.5.1 An archaeological watching brief has been recommended for the scrape back works on the western side of the Port of Mostyn, within the vicinity of the former breakwater head (known as the “Bull Nose”), a location identified by Jones and Owen 2007 as being of high archaeological potential. A watching brief may also be recommended on other parts of the Compensation Works which impact directly on intertidal sediments if material is reported through the PAD (see **Section 8.7**).
- 8.5.2 This watching brief will be completed by a suitably qualified and experienced marine archaeologist, positioned at a point where the excavation area is both visible and the archaeologist is positioned outside the reach and swing of the excavator. If this is not



possible then the monitoring archaeologist should be able to inspect the excavation area in between the removal of material.

- 8.5.3 Should archaeological features or structures that are encountered within the intertidal sediments merit further investigation, the excavation will be paused to allow the attendant archaeologist to inspect, uncover, record and recover archaeological material as appropriate. A sufficient sample of each layer/feature type will be investigated to elucidate the date, character, relationships, and function of the feature/structure.
- 8.5.4 Recording will include written, drawn, and photographic elements as conditions allow. All works will be completed in line with applicable standards and guidance (ClfA 2023c).
- 8.5.5 The findings of any watching brief will be compiled as an Archaeological Report consistent with industry standards set out in **Section 8.6**. This could be combined with reporting into other mitigation measures as required.

8.6 Archaeological reporting, data management and archiving

- 8.6.1 Each package of archaeological works will be accompanied by written reports pursuant to the requirements of those works and demonstrating appropriate planning, recording and data management and commitment to archiving and public dissemination of results.
- 8.6.2 For all aspects of recording, reporting, data management and archiving the Client will adhere to standards and guidance as set out in ClfA 2014b.
- 8.6.3 Key points relevant to recording, reporting, data management and archiving are included below and in **Sections 10** and **Section 11**.

Reports

- 8.6.4 Each package of work will give rise to one or more Archaeological Reports, as set out in the Method Statement relating to the work.
- 8.6.5 Each Archaeological Report will satisfy the method statement for the investigation and will present the project information in sufficient detail to allow interpretation without recourse to the project archive.
- 8.6.6 Archaeological reports will be prepared in accordance with the guidance given in the relevant ClfA Standards and Guidance document (ClfA 2014b).
- 8.6.7 Survey data and reports will be reviewed from an archaeological perspective to ensure suitable mitigation is put in place for the proposed works. The reviews will consider:
- relationship between the survey work, the WSI and the licence condition(s);
 - context in terms of relevant construction works;
 - specific objectives data review;
 - extent of investigations undertaken;
 - methodology for data review or analysis;
 - mitigation requirements;
 - monitoring arrangements;



- recommendations.

8.6.8 Illustrations will include a plan of the area subject to investigation in relation to the development scheme.

8.6.9 Each Archaeological Report will be submitted in draft to Client by the Retained Archaeologist. Upon approval by the Client, Archaeological Reports will be submitted to the Archaeological Curator(s) for approval within four weeks of completion of the works associated with each Archaeological Method Statement and their agreement/acceptance will be assumed if no contrary response is received within 15 working days of submission.

8.6.10 On completion of all archaeological works relating to the project an overarching report on the archaeology of the scheme will be prepared within a timetable agreed with the Client and Archaeological Curator(s).

8.6.11 *Post-fieldwork Assessment*

8.6.12 Following the completion of all relevant work, the Client will secure the implementation of all the post-construction archaeological work applicable to that relevant work.

8.6.13 Decisions regarding the scope of post-fieldwork assessment will be made by agreement between the Client and Archaeological Curator(s) following submission of investigation reports, based on the possible importance of the results in terms of their contribution to archaeological knowledge, understanding or methodological development.

8.6.14 The assessment phase may include (but is not limited to) the following elements:

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

8.6.15 Once the final overarching assessment report has been approved by the Archaeological Curator(s) and any subsequent analysis of the finds is completed, important results will be published in a recognised peer-reviewed journal or as a monograph if suitable.

8.7 Protocol for Archaeological discoveries (PAD)

8.7.1 A PAD 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 the proposed development works.

8.7.2 For the purposes of this WSI these works are expected to be limited to the Compensation Works as set out in **Section 1**.



- 8.7.3 The PAD 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 a PAD include any other works with the potential for the discovery of material on the seabed and/or recovery of material to the surface. Archaeological Method Statements relating to these activities should include provision for reporting discoveries through a PAD.
- 8.7.4 The PAD will be implemented in order to ensure that unexpected discoveries of archaeological material – including submerged prehistoric material, shipwreck material aircraft remains, and any other archaeological material – are addressed in a timely and appropriate manner.
- 8.7.5 The aim of the PAD is to reduce any adverse effects of the proposed works on the historic environment by enabling people working on site to report archaeological finds in a manner that is both convenient to their everyday work and effective regarding curatorial requirements. Flow charts of actions/communications and recording sheets associated with the PAD can be found in **Appendices 1 - 2**.
- 8.7.6 Archaeological finds made during the proposed works are important because they can shed light on past human use of the landscape, sea, and seabed. The information that such discoveries bring to light can help archaeologists better understand the human past and should, therefore be conserved to better protect these aspects of our history on behalf of future generations.
- 8.7.7 The PAD will be implemented to ensure that these discoveries are reported and analysed. Whilst there are no industry standard protocols for this specific marine development, the following methodology has been adapted from already approved protocols for other industries, specifically the British Marine Aggregates Producers Association (BMAPA) and English Heritage (EH) *Protocol for Reporting Finds of Archaeological Interest* (BMAPA & EH 2005) and the *Protocol for Archaeological Discoveries: Offshore Renewables Projects* (The Crown Estate 2014).

Methodology

- 8.7.8 The implementation of the PAD will be initiated by a PAD Awareness Training by the Retained Archaeologist to the relevant activities to ensure that all Project Staff are aware of what constitutes an appropriate find, understand how to record them, and are aware of the reporting process. The Retained Archaeologist will keep a log of the delivered PAD Awareness Training, which will be communicated with the Client and / or their representatives.
- 8.7.9 An internal reporting chain must be in place in order for the PAD to be operationally effective. Therefore, contact details, including those of the Site Champion, Nominated Contact and the Archaeological Contractor, will be circulated once they have been confirmed.
- 8.7.10 When discoveries are made by Project Staff, they can then be reported to a Site Champion. The Site Champion will generally be the Construction Supervisor / Foreman, or any other person in a position to control the immediate works. The Site Champion then reports to the Nominated Contact - a person who has been appointed by the contractor to co-ordinate implementation of the PAD. The Nominated Contact will then report any discoveries to the Retained Archaeologist and Client.



- 8.7.11 Reporting of discoveries should be done immediately for the Retained Archaeologist to provide a quick response and plan of action and minimise disruption to the work programme. The Retained Archaeologist will in turn liaise with the Nominated Contact, the Client and / or their representative, the Archaeological Curators and others, as necessary. Provision will be made by the Client and / or their representative, in accordance with the PAD, for the prompt reporting / recording of archaeological remains encountered or suspected during the works.
- 8.7.12 If the find is recovered and constitutes 'wreck' within the terms of the *Merchant Shipping Act 1995*, 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. Should a find comprise material suspected to be from an aircraft lost while in military service, both the Receiver of Wreck and 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* but could also be protected under the *Protection of Military Remains Act 1986*. With regards recovery of 'wreck', the Client and/or their representative will be responsible for the legal obligations under the *Merchant Shipping Act 1995* 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.
- 8.7.13 For discoveries of high archaeological importance, a TEZ can be implemented, all works are to cease within the area, and call-out investigations could be instituted, following discussions with the Archaeological Curator(s).
- 8.7.14 The Retained Archaeologist will produce an archaeological report of the finds at the end of the proposed works for comment by the Client and / or their representative and the Archaeological Curator.

Actions by the Nominated Contact

- 8.7.15 When contacted by the Nominated Contact and once information has been passed on, the Archaeological Contractor will enter the information in the project database / Geographic Information System (GIS).
- 8.7.16 The Retained Archaeologist will review all information relating to the occurrence in conjunction with the desk-based information.
- 8.7.17 The Retained Archaeologist will advise the Nominated Contact of any further actions that may be required, including:
- advice on immediate actions to be taken in respect of the discovery, including any recovered finds; and,
 - advice on the identification of finds and the character of their seabed locations.
- 8.7.18 When the available information has been reviewed, this may include relevant desk-based data and preliminary research, the Retained Archaeologist will assess the archaeological potential and importance of the discovery.

Reporting

- 8.7.19 The Client and / or their representative will report any discovery of 'wreck' to the Receiver of Wreck, using the Receiver of Wreck website (see **Section 4.4**).



- 8.7.20 The Retained Archaeologist will produce an archaeological report of the analysis of any finds or anomalies at the end of the project. The results will be presented in a stand-alone format and will refer to the previous archaeological work.

9 FINDS RECOVERY

9.1 General

- 9.1.1 All archaeological finds recovered from marine contexts will be recorded in accordance with ClfA's *Universal guidance for archaeological field evaluation* (2023b) and *Standard and guidance for the collection, documentation, conservation and research of archaeological material* (ClfA 2014a updated 2020).
- 9.1.2 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.
- 9.1.3 Any finds from terrestrial or marine contexts that require conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson and 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 the recovery of small finds.

9.2 Human remains

- 9.2.1 In the event of discovering of any human remains (articulated or disarticulated, cremated or unburnt), the 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, preventing any further impact. Where practical, the deposits will be left *in situ*, covered and protected (The Crown Estate 2014, 49).
- 9.2.2 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.
- 9.2.3 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.
- 9.2.4 Should human remains require removal, 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 (e.g. McKinley 2013) and the standards set out in ClfA Technical Paper 13 *Excavation and post-excavation treatment of cremated and inhumed remains*. Appropriate specialist guidance/site visits will be undertaken if required.
- 9.2.5 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 Ministry of Justice licence, as applicable.



9.3 Ordnance

- 9.3.1 If items of ordnance are discovered, they will be treated with extreme care. Company Health & Safety policies and established operational procedures should always take priority over archaeological reporting of munitions and ordnance.
- 9.3.2 Due to the potential danger of unexploded ordnance, if items are encountered it is important to:
- recognise an item of UXO and accept that it is potentially dangerous;
 - retreat from the UXO, do not touch, move or disturb and safely leave the area; and
 - report the UXO location and give a description to the project's Explosive Ordnance Disposal (EOD) or relevant authorities (Police, HM Coastguard or Ministry of Defence).
- 9.3.3 Any incident causing the recovery of UXO must be reported by the vessel Master/or person in charge to HM Coastguard who will coordinate military EOD support if there is a threat to life.
- 9.3.4 If an item of UXO is later discovered for example when the vessel is alongside or at a storage facility, the discovery is to be reported to the Police who will then arrange for EOD support, ensuring public safety if there is a threat to life.
- 9.3.5 In the event that items are assessed to be blind or live¹ munitions they will need to be rendered safe either by military EOD or an appropriate third-party commercial EOD contractor associated with the project.
- 9.3.6 Unless held in a licensed store, retaining any live or blind UXO on site beyond 24 hours of discovery is an offence under the *Manufacture and Storage of Explosive Regulations 2005*.
- 9.3.7 Any firearms and ammunition are likely to be subject to the *Firearms Acts* (various dates). Ammunition should be regarded as ordnance, regardless of its size. Under Section 5 of the *Firearms Act 1968*, authority is needed to handle prohibited weapons, component parts and prohibited ammunition. Any firearms must be reported to the Police or EOD.
- 9.3.8 Further guidance is provided in The Crown Estate and Mineral Product's *Dealing with munitions in marine aggregates* (June 2006) and *Dealing with munitions in marine sediments* (March 2010).

9.4 Treasure

- 9.4.1 The Retained Archaeologist will immediately notify the Client and the Curator(s) on discovery of any material covered, or potentially covered, by the *Treasure Act 1996* (as amended by *The Coroners and Justice Act 2009*). All information required by the *Treasure Act* (i.e., finder, location, material, date, associated items etc.) 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 Live – contains explosives and have not been fired. Blind – have fired but failed to function as intended.



9.4.2 Material recovered below Mean High Water Springs (MHWS) to 12 nautical miles (nm) may be regarded as Wreck under the *Merchant Shipping Act 1995*.

9.5 Aircraft

9.5.1 Under the *Protection of Military Remains Act 1986*, 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 licence is required irrespective of whether the aircraft was in the service of another nation's armed forces.

9.5.2 Application for a licence, and any subsequent work, should be undertaken in line with the Ministry of Defence's *Military Aircraft of Historical Interest: Licensing of Excavations in the UK: Notes for Guidance of Recovery Groups* (Revised 2018)². 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).

9.5.3 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, if recovered, to the Receiver of Wreck within 28 days of discovery.

9.5.4 For the archaeological assessment of aircraft remains, the Retained Archaeologist will refer to available guidance from the Archaeological Curators, such as *Caring for Military Sites of the Twentieth Century* (Cadw, 2009).

9.6 Wreck

9.6.1 There is a legal obligation under the *Merchant Shipping Act 1995* that all material identified as 'wreck' must be reported to the Receiver of Wreck within 28 days of discovery.

9.6.2 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.

9.6.3 Not only does the legislation cover wreck material recovered from within UK territorial waters (12 nm), 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.

9.6.4 Wreck material is reported to the Receiver of Wreck by completing a 'Report of wreck and salvage' form (MSF 6200). A droit number will be assigned to each report of wreck, which could include a single or multiple objects from one location/wreck site.

9.6.5 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.

9.6.6 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

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916555/20180514_Licence_NotesforGuidance_2018-3.pdf



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.

- 9.6.7 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. 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/their representative is fully aware of the obligations of the *Merchant Shipping Act* 1995 and frequently liaise with the Receiver of Wreck until a decision on ownership has been made and the droits can be formally closed.
- 9.6.8 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.

9.7 Asbestos

- 9.7.1 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, seals, etc. 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.
- 9.7.2 The potential risk of asbestos increases if finds are dry, disturbed and/or degrading. Therefore, any material suspected of being asbestos containing material should be kept wet and undisturbed, and contractor's own specific procedures should be followed to minimise risk.
- 9.7.3 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 carried out by an accredited/licenced external specialist.

10 POST-EXCAVATION AND REPORTING

10.1 Finds

- 10.1.1 All retained archaeological finds will, as a minimum, be weighed (where applicable), identified and given a unique identifier. They 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.
- 10.1.2 Metalwork, especially from stratified contexts, will 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.



10.1.3 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.

10.1.4 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 (2014b).

10.2 Finds conservation and storage

10.2.1 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. The Conservation Assessment must be approved by the Archaeological Curator(s) and, where applicable, the Receiver of Wreck. 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 measures are recommended, finds will be conserved, bagged, boxed and stored in accordance with industry guidelines (ClfA 2014b).

10.3 Reporting

General

10.3.1 Following completion of the fieldwork and/or the assessment of the data, 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.

10.3.2 The report will typically include the following elements:

- a non-technical summary;
- the aims and methods of the work;
- the results of the work including finds and environmental remains;
- a statement of the potential of the results;
- proposals for further analysis and publication;
- appendices;
- illustrations; and
- references

10.3.3 A copy of the report(s) will be deposited with the National Marine Heritage Dataset (Mariner), along with surveyed spatial digital data (.dxf or shapefile format) relating to the evaluation.

10.3.4 It is essential that information from this project be made publicly available, as this will lead to beneficial effects, and is a requirement of the Archaeological Curators. 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.



Publication

- 10.3.5 If no further mitigation works are undertaken, a short report on the results of the evaluation 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.

OASIS

- 10.3.6 An OASIS online record (<https://oasis.ac.uk/>) will be created, with key fields completed, and a .pdf version of relevant reports submitted, within six months of each report being approved by the Client. Copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue. However, projects subject to any contractual requirements on confidentiality, or with the discovery of vulnerable sites, will only be uploaded to OASIS following confirmation from the Client and/or Archaeological Curator.

11 ARCHIVE STORAGE AND CURATION

11.1 Museum

- 11.1.1 The documentary archive will be deposited with the RCAHMW. It is recommended that any finds are deposited with Flintshire Museums Service.
- 11.1.2 Shipwrecks and any material relating to a wreck found in or on the shores of the sea or any tidal water must be reported to the Receiver of Wreck receiving a unique droit number. Deposition of any finds with the museum will only be carried out with the agreement of The Crown Estate or the owner of the material (as confirmed by the Receiver of Wreck). Any droits should be formally closed by the Receiver of Wreck prior to material being accessioned to a museum. If droits are still open immediately prior to deposition, then the museum must agree to accept the material with open droits in the understanding that they will eventually be closed to the museum. Ensure that the Receiver of Wreck is aware of this agreement.
- 11.1.3 There is also a requirement to obtain a marine licence under the *Marine and Coastal Access Act* (MCAA) to be granted by Welsh Government administered by Natural Resource Wales (NRW).
- 11.1.4 The Retained Archaeologist may institute a charge to the client for the cost of long-term storage of the archive beyond a set period.

11.2 Transfer of title

- 11.2.1 On completion of the investigation (or extended fieldwork programme), every effort will be made to encourage the legal owner of any finds recovered (e.g. The Crown Estate), with the exception of:
- human remains and any objects covered by the *Treasure Act* 1996 (as amended by the Coroners and Justice Act 2009);
 - aircraft material covered by the *Protection of Military Remains Act* 1986 (and therefore under the ownership of the JCCC of the MoD), to transfer their ownership to the museum in a written agreement. Furthermore, ownership would be sought by the Receiver of Wreck; and
 - recovered wreck material covered by the *Merchant Shipping Act* 1995 as administered by the Receiver of Wreck. One year after the report form is received by

the Receiver of Wreck, any unclaimed material becomes the property of the Crown or grantee of the Crown, whereby the Receiver of Wreck can dispose of this material on their behalf or try to ensure it is offered to an appropriate museum or institution if historically or archaeologically important. Furthermore, any Receiver of Wreck droits associated with recovered material must be formally closed prior to material being accessioned to a museum.

11.3 Preparation of archive

Finds archive

- 11.3.1 Any finds (artefacts and ecofacts) will be prepared following the *National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales* (2017), and in general following nationally recommended guidelines (SMA 1995; ClfA 2014b; Brown 2011; National Panel for Archaeological Archives in Wales 2017; 2019).
- 11.3.2 The physical archive will usually be deposited within one year of the completion of the project, with the agreement of the Client. Where artefacts have 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 project will allow discussions to occur to arrange for any required accessioning prior to the droits being officially closed.

Digital archive

- 11.3.3 The physical archive (paper records and graphics) and born digital data (site records, finds and environmental data, photographs, survey data and reports) will be prepared following the standard conditions for the acceptance of archaeological material by the RCAHMW and in general following nationally recommended guidelines (SMA 1995; ClfA 2014b; Brown 2011; National Panel for Archaeological Archives in Wales 2017; 2019).
- 11.3.4 Full details of the collection, documentation, storage and selection of digital data will be included in the project Data Management Plan (DMP), that will be appended to the final agreed WSI or relevant Archaeological Method Statement.

11.4 Selection strategy

- 11.4.1 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 in order 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 Museum.
- 11.4.2 The relevant Archaeological Curator(s) and the Retained Archaeologist will agree with the receiving institution 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, section 4; National Panel for Archaeological Archives in Wales 2019) and generic selection policies (SMA 1993) and follows the ClfA's *Toolkit for Selecting Archaeological Archives*. Legislative requirements of the *Merchant Shipping Act 1995* and *Protection of Military Remains Act 1986* must also be taken into account.



- 11.4.3 Where possible, the receiving institution will be notified in advance of any fieldwork. However, due to the nature of some types of fieldwork whereby it is often unknown what finds could be recovered, these discussions may take place during or even after fieldwork has ended.
- 11.4.4 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.
- 11.4.5 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.

Finds

- 11.4.6 Selection, retention and disposal of recovered or excavated material should only occur if the legislative requirements of the *Merchant Shipping Act 1995* and *Protection of Military Remains Act 1986* are fully undertaken and the Receiver of Wreck, Ministry of Defence and other relevant stakeholders including the Archaeological Curator 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 (2011).
- 11.4.7 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 by the 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 material will be adequately recorded to the appropriate level before de-selection.
- 11.4.8 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.

Documentary and digital records

- 11.4.9 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.



11.5 Security copy

- 11.5.1 In line with current best practice (e.g., 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.

12 COPYRIGHT

12.1 Archive and report copyright

- 12.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by the Retained Archaeologist under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, 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*. 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.
- 12.1.2 Information relating to the project will be deposited with the HER 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.

12.2 Third party data copyright

- 12.2.1 This document, the evaluation report and the project archive may contain material that is non-Wessex Archaeology copyright (e.g., 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* with regard to multiple copying and electronic dissemination of such material.



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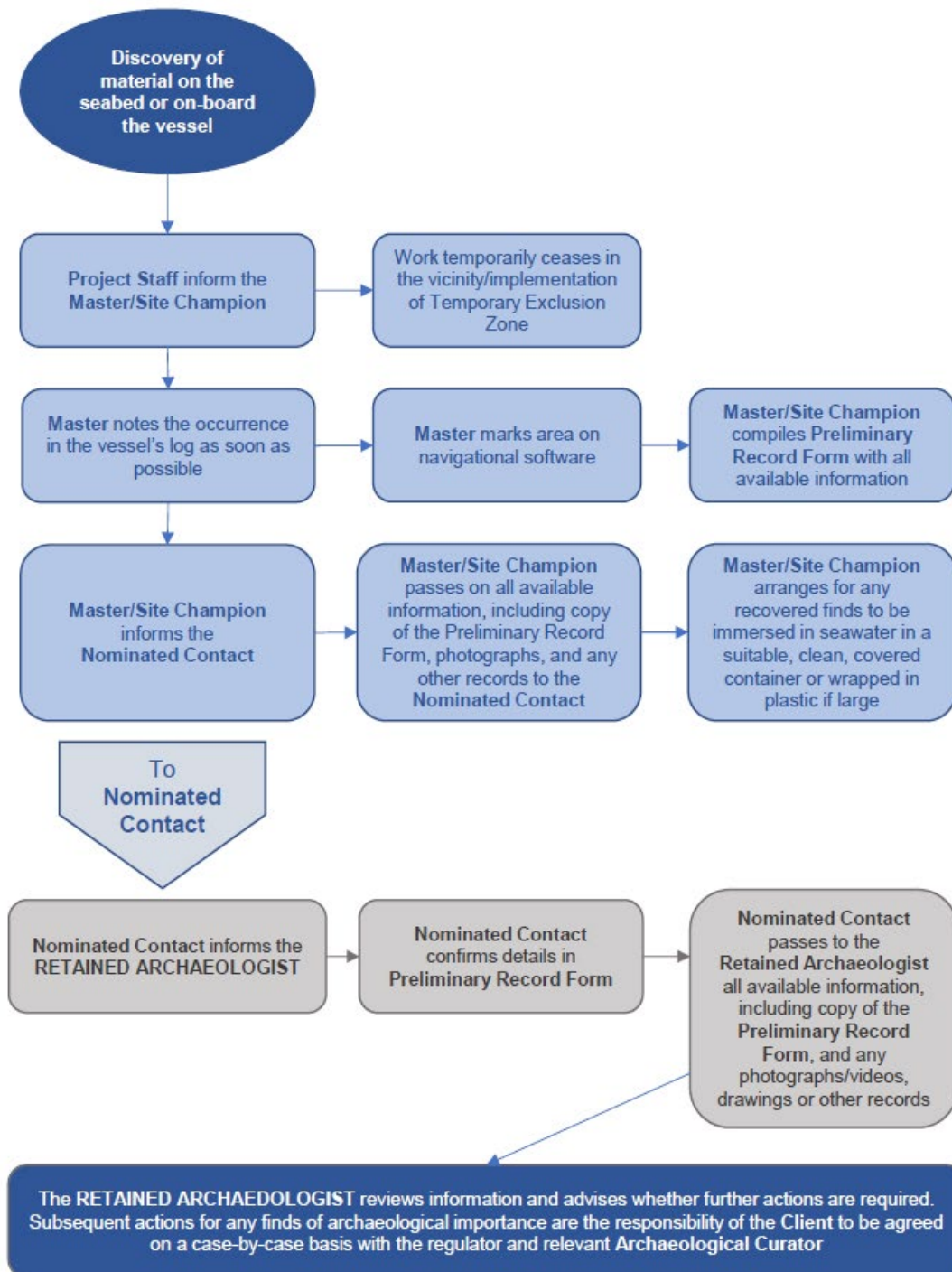
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APPENDICES

Appendix 1: Protocol for Archaeological Discoveries

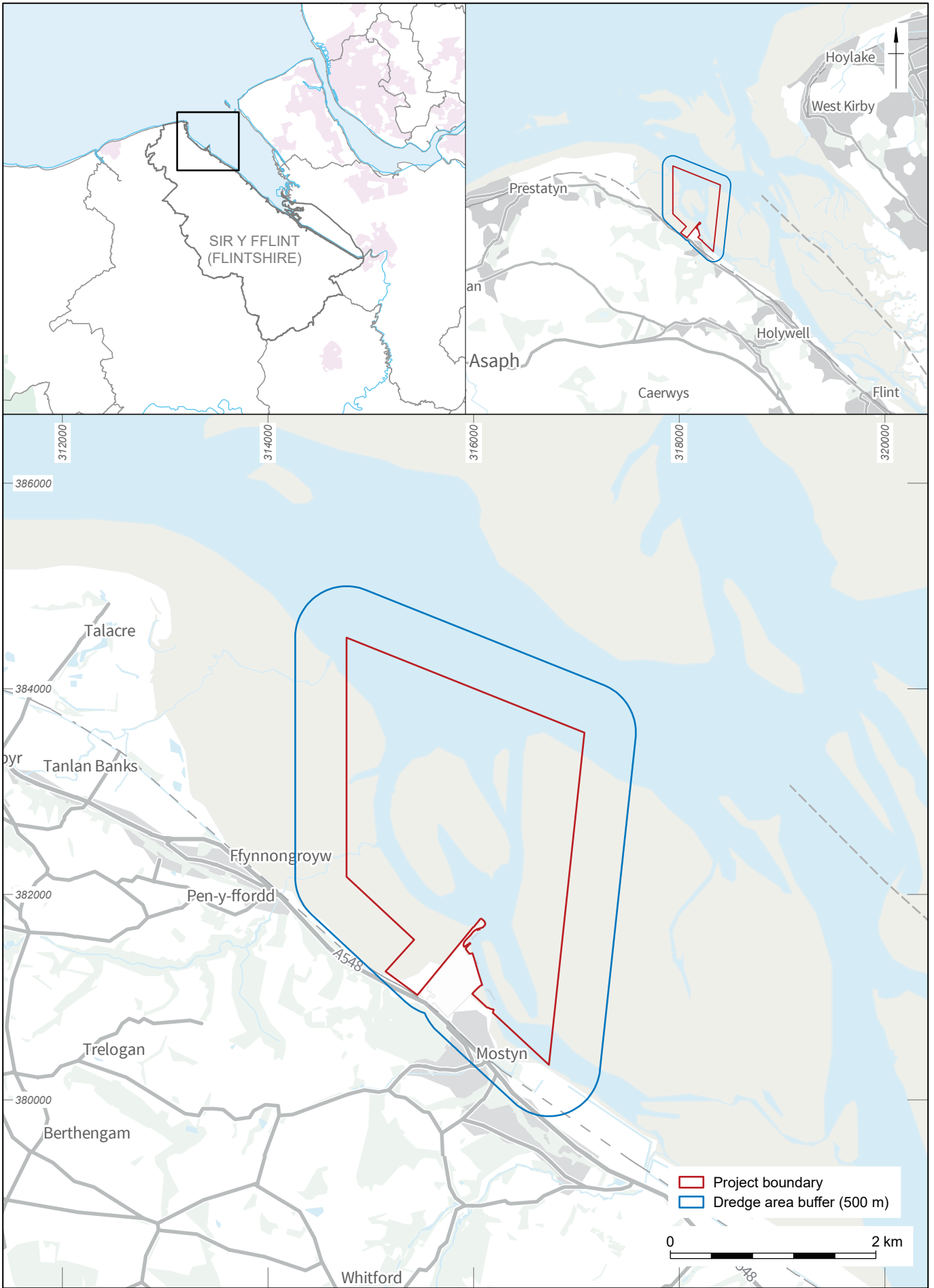
Protocol for Archaeological Discoveries: actions for discoveries on the seabed or on-board a vessel





Appendix 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:



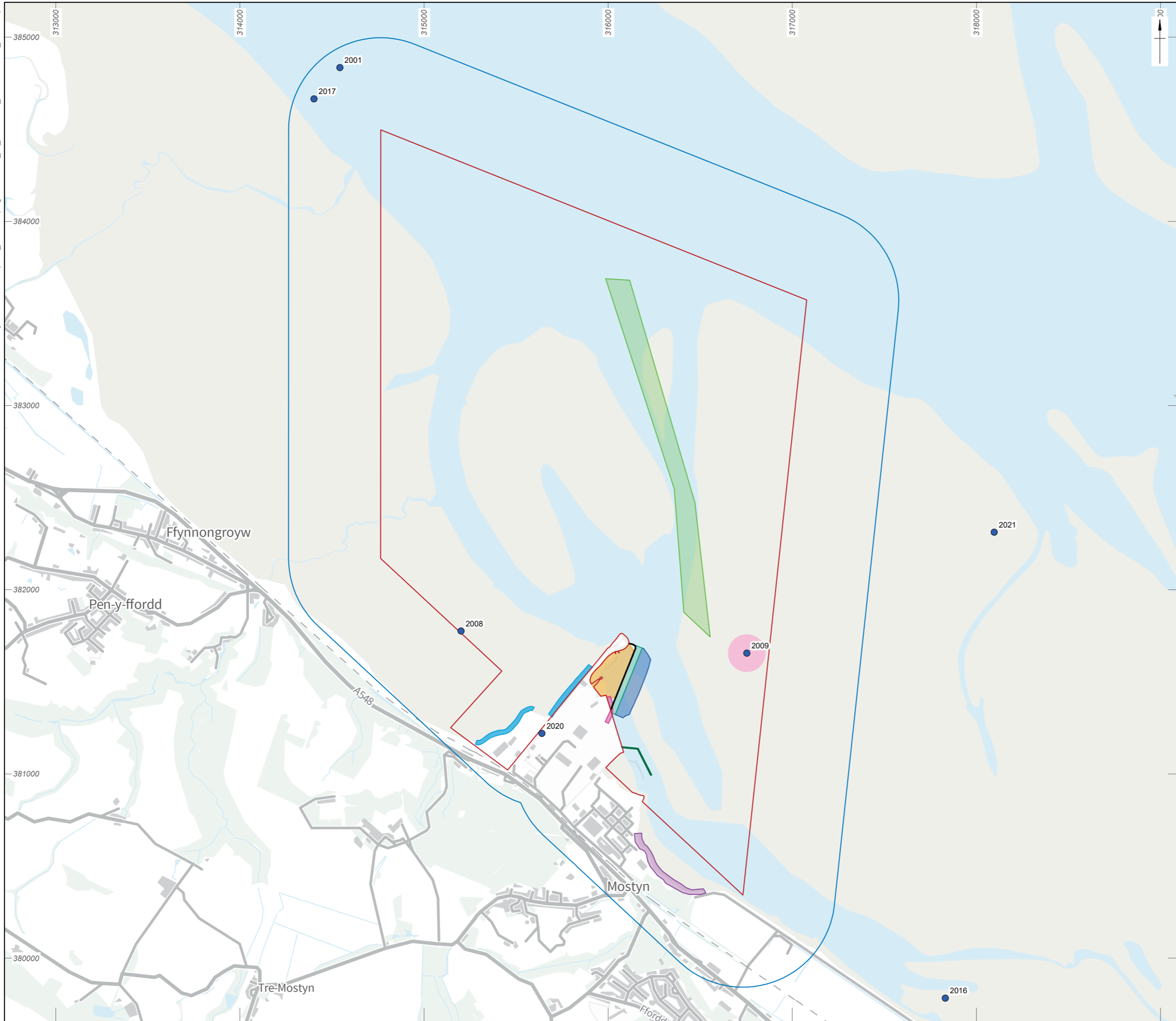
Coordinate system: OSGB 1936 British National Grid

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Figure 1. Site location





- Project boundary
- Dredge area buffer (500 m)
- Gazetteer data
- Archaeological exclusion zone (100 m)
- Quay wall construction boundary
- Potential relocation - existing dolphins
- Scrape back area
- Potential RoRo linkspan
- Reclamation area
- Main navigation channel
- New berth pocket
- Dredge slope
- Foreshore remedial area



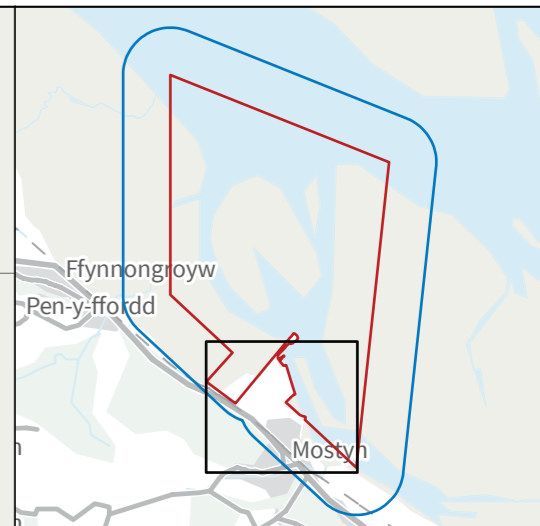
Coordinate system: OSGB 1936 British National Grid

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Figure 2. Proposed development and archaeological baseline



- Project boundary
- Dredge area buffer (500 m)
- Scrape back area
- Foreshore remedial area
- - - Proposed watching brief area



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Figure 3. Details of Compensation Works and proposed WB area



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