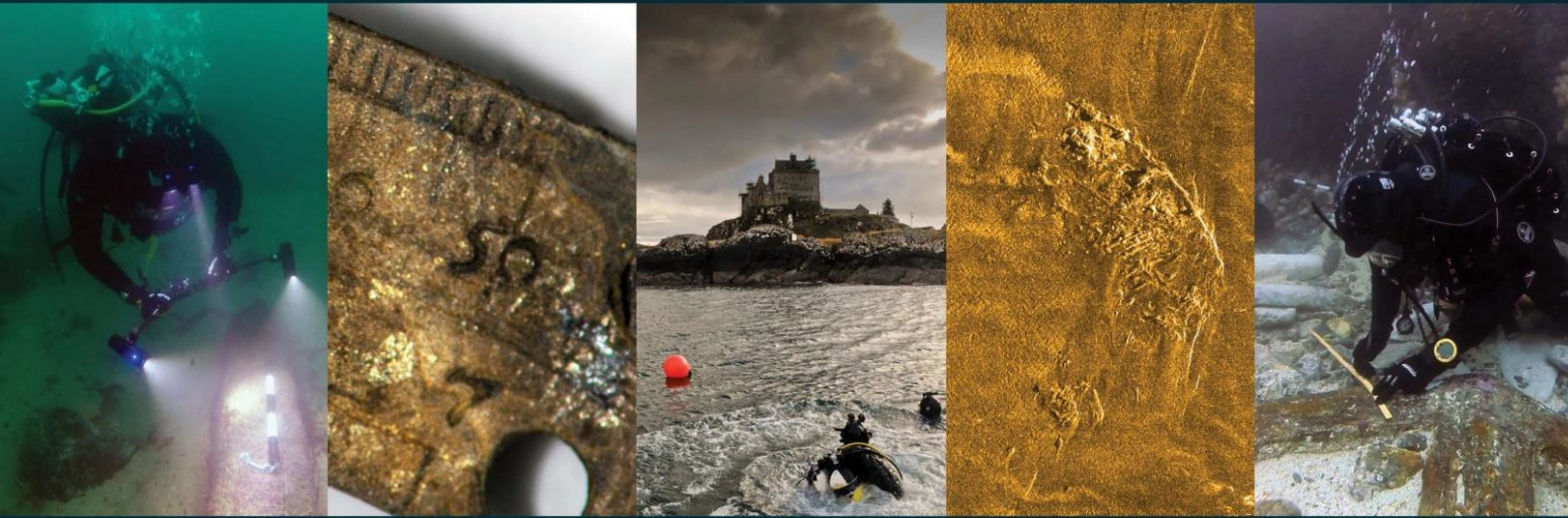


# Visual Impact Provision (VIP), Snowdonia Scheme

*Marine archaeological desk-based assessment*



*for*

Intertek

*on behalf of*  
National Grid

CA Project: 770405

CA Report: 16524



# Visual Impact Provision (VIP), Snowdonia Scheme

## Marine archaeological desk-based assessment

CA Project: 770405

CA Report: 16524

prepared by	Patrick Dresch, Marine Heritage Consultant
date	April 2017
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date	April 2017
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date	April 2017
issue	Issue number 03

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## SUMMARY

**Project Name:** Visual Impact Provision (VIP), Snowdonia Scheme

**Location:** Gwynedd

**NGR:** 261019 337855

Cotswold Archaeology (CA) was commissioned by Intertek on behalf of National Grid to produce a desk-based assessment of marine archaeology within the marine parts of the Search Area for Permanent and Temporary Works for the Visual Impact Provision (VIP), Snowdonia Scheme cable. This desk-based assessment considers the marine and intertidal areas of this application.

There is one designated heritage asset within the marine parts of the Search Area for Permanent and Temporary Works, a Grade II listed building, Pont Briwet. The assessment of this heritage asset is considered to be beyond the scope of this report. There is one undesignated heritage asset, the wreck of an amphibious vehicle, recorded in the National Monuments Record for Wales within the marine parts of the Search Area for Permanent and Temporary Works. Very little is reported on this wreck and it is unclear if it is still there.

The Historic Environment Record (HER) indicates evidence of human activity within the area surrounding the Dwyryd Estuary from the prehistoric until the present. It is thought therefore that there is some potential for buried archaeology within the marine parts of the Search Area for Permanent and Temporary Works.

## Data licences

HER: Gwynedd Archaeological Trust (GAT) HER Public Record Number (PRN) 666 & GAT HER PRN 666

United Kingdom Hydrographic Office (UKHO): L092016.0001 © SeaZone Solutions, 2013: The data provided is a Complex Product Derivative Work produced from data provided by SeaZone Solutions.

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APPENDIX A: Gazetteer of referenced heritage assets and other elements of the historic environment

APPENDIX B: Design drawing PDD-33494-LAY-002\_P5

APPENDIX C: Planning Policy

## **Glossary**

**AONB** - Area of Outstanding Natural Beauty

**BGS** – British Geological Survey

**CA** – Cotswold Archaeology

**CD** – Chart Datum

**Cadw** - the Welsh Government's historic environment service working for an accessible and well-protected historic environment for Wales.

**Client** - Intertek on behalf of National Grid

**Archaeological Consultant** - The nominated Archaeological Consultant is Cotswold Archaeology who compiled this document for the project

**Heritage Assets** - Elements of the historic environment that have local, regional or national significance, such as listed buildings or war memorials

**DBA** - Desk-based assessment

**Designated Wreck** - A protection placed on historic wrecks so they are not put at risk from unauthorised access, undisciplined activities or investigation, in accordance with the Protection of Wrecks Act 1973

**Fauna** - Animals both invertebrates and vertebrates

**Flint** - Form of quartz mineral (chert) used to make tools in prehistoric societies

**GAT** – Gwynedd Archaeological Trust

**Geophysical Survey** - A non-intrusive investigative survey with example methods including sidescan sonar, magnetometer, echo-sounding and sub-bottom profiling, to detect or measure features on and below the seabed

**Geotechnical Survey** - An intrusive survey method that penetrates the seabed recovering material samples for analysis

**HER** – Historic Environment Record

**ICOMOS** - International Council on Monuments and Sites

**Lithic** - Stone tool that may be associated with prehistoric cultures

**Mesolithic** - Archaeological period of time of past cultures approximately 10,000 – 4,000BC

**MHWS** - Mean High Water Springs, highest average tide

**NMRW** – National Monuments Record for Wales

**OS** – Ordnance Survey

**PAD** - The Protocol for Archaeological Discoveries sets out the procedures that must be followed in the event of archaeological discoveries either on the seabed or on the deck of working vessels and identifies the personnel with responsibility for ensuring that the PAD is followed

**Palaeo-environmental** - Prehistoric environmental conditions

**Peat** - An organic material formed by decayed vegetation matter that can preserve important environmental and archaeological evidence

**PMRA 1986** - Protection of Military Remains Act 1986

**PWA 1973** - Protection of Wrecks Act 1973

**Receiver of Wreck** - The Receiver of Wreck has become a centralised function, dealing with all reports of wrecks from around the UK including Northern Ireland. It is based within the Maritime and Coastguard Agency headquarters in Southampton, with assistance from Coastguard personnel around the coast

**Receptor** - Any environmental or other defined feature that is sensitive to - or has the potential to be affected by - an impact

**RoW** - Receiver of Wreck, the wreck administration within the MCA/UKHO

**RCAHMW** - The Royal Commission on the Ancient Historic Monuments for Wales takes a leading national role as the originator, curator and supplier of authoritative cultural heritage information for individual, corporate and governmental decision makers, researchers, and the general public.

**SAC** - Special Area of Conservation

**Site** – the assessment area provided by Intertek (National Grid drawing: PDD-33494-LAY-002 Rev. P6) comprising the marine parts of the Search Area for Permanent and Temporary Works.

**SSSI** - Site of Special Scientific Interest

**Study Area** – a 1km buffer around the marine parts of the Search Area for Permanent and Temporary Works used to gather data to provide sufficient contextual information about the Site and its environs from which to assess known and potential impacts on the heritage resource.

**TCE /The Crown Estate** - is the body responsible for managing the seabed and foreshore in UK territorial waters, and the lease holder for offshore developments within UK jurisdiction

**UKHO** - United Kingdom Hydrographic Office

**UNESCO** - United Nations Educational, Scientific and Cultural Organisation

**VIP** - Visual Impact Provision

**WSI** - The Written Scheme of Investigation sets out the respective responsibilities of the Developer, the Contractor, and the Archaeological Consultant prior to and during installation, and creates formal lines of communication between the parties and relevant stakeholders.

## 1. INTRODUCTION

### **Outline**

- 1.1. Cotswold Archaeology (CA) was commissioned by Intertek on behalf of National Grid on 6 June 2016 to produce a desk-based assessment (DBA) of marine archaeology for the marine elements of the Search Area for Permanent and Temporary Works of the Visual Impact Provision (VIP), Snowdonia Scheme cable covering the Dwyryd Estuary (hereafter referred to as the 'Site'), to support a marine licence application. The marine licence application will be submitted in connection with ground investigation works (Figure 1).
- 1.2. This DBA has been guided in its composition by the *Standard and guidance for historic environment desk-based assessment* (Chartered Institute for Archaeologists, 2014); Planning Policy Wales (Welsh Government, 2016); and Conservation Principles (Cadw, 2011).
- 1.3. This desk-based assessment follows on from the written scheme of investigation (WSI) prepared by CA in June 2016 and reviewed by the Gwynedd Archaeological Planning Service.

### **Location and landscape context**

- 1.4. The Site covers the eastern part of Dwyryd Estuary covered by the extended Marine Project Area (National Grid: 23/01/2017), centred on NGR 261019 337855 and covers c. 216 hectares (Ha) (Figure 1).
- 1.5. The Site is located on the west coast of Wales at the edge of Snowdonia National Park, on the part of the Dwyryd Estuary between Penrhyndeudraeth to the north and Talsarnau to the south, including areas of saltmarsh which remain exposed at high tide. This area of sand flats immediately south of the Penrhyndeudraeth peninsula is also referred to as Traeth Bach (Little Beach).
- 1.6. The superficial geology of the Site is comprised of tidal flat deposits composed of clay, silt and sand; these overlie bedrock geology of the Ffestiniog Flags Formation, composed of mudstone, siltstone and sandstone (British Geological Survey, 2016).
- 1.7. The Site lies within the Tremadog Bay and Dwyryd Estuary Marine Character Area (MCA 14) (Natural Resources Wales, 2015). This characterises the Dwyryd Estuary as an extensive intertidal area with a meandering channel running through it which continues inland. There are also extensive salt marshes, sand flats, mud and dune



systems, with the tidal island of Ynys Giffan forming a prominent feature (Natural Resources Wales, 2015).

### ***Summary of development proposals***

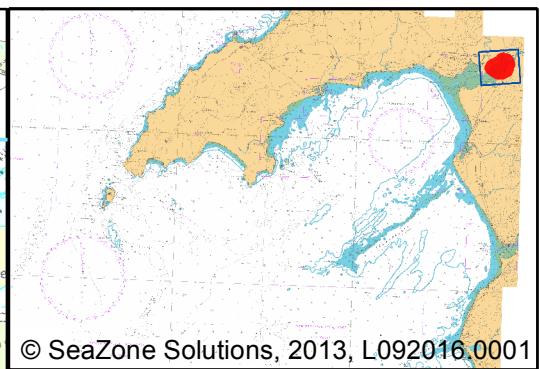
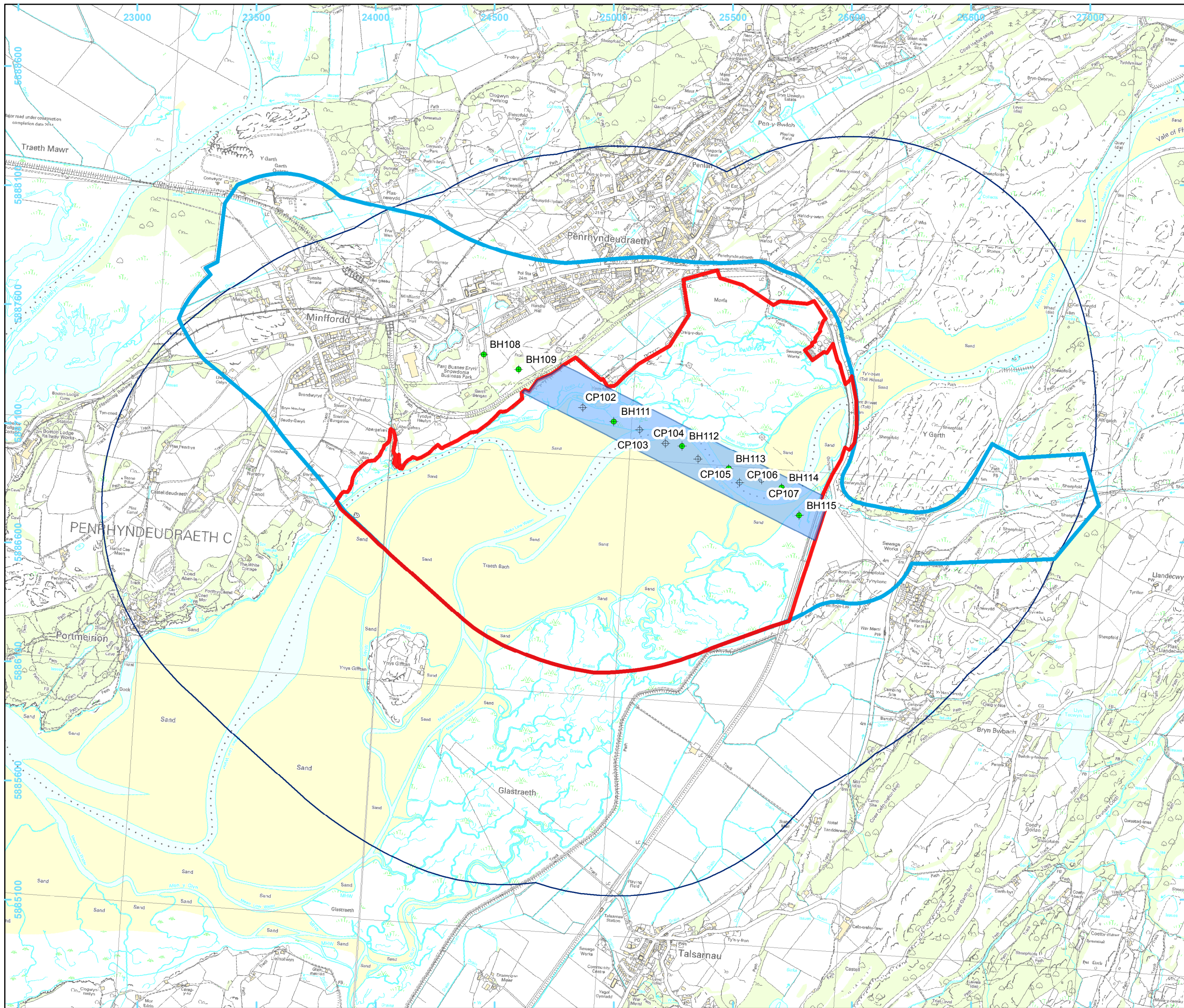
- 1.8. The National Grid Visual Impact Provision (VIP) project sets out to reduce the impact of existing electricity transmission lines in Areas of Outstanding Natural Beauty (AONB) and National Parks in England and Wales. This assessment relates to the VIP Snowdonia scheme located on the edge of Snowdonia National Park, and involves converting part of an existing overhead line to subterranean cabling across the Dwyrdd Estuary. This section of the estuary is largely above mean low water (except for the channels) and therefore falls almost entirely within the intertidal area.
- 1.9. Various engineering techniques and routing options to install the cables below ground are currently being considered by National Grid. These options require detailed ground investigations to confirm ground conditions and identify feasible construction techniques. A marine licence is required for the proposed ground investigations.
- 1.10. The project area falls within the Lleyn Peninsula and Sarnau Special Area of Conservation (SAC) and Morfa Harlech Site of Special Scientific Interest (SSSI).

### ***Definitions***

- 1.11. The **Site** – refers to the extended Marine Project Area created by National Grid (23/01/2017). This area covers c. 216Ha and is centred on NGR 261019 337855 shown on Figure 1.
- 1.12. The **study area** – refers to the 1 km buffer area around the Site (Figure 1) used to gather data to provide sufficient contextual information about the Site and its environs from which to assess known and potential impacts on the heritage resource.

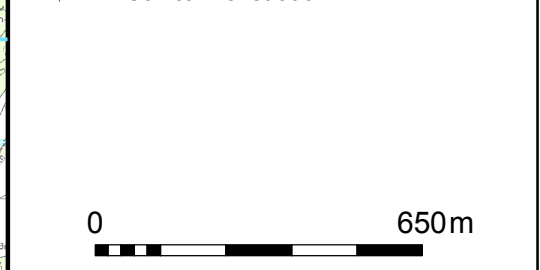
### **Scope and objectives**

- 1.13. The marine DBA will assess the known and potential below ground archaeological remains identified within the study area (Figure 1 - Figure 2). This study area includes elements of the terrestrial landscape which may provide information on human activity within the environs of the Site and inform the assessment of potential archaeology within the Site.
- 1.14. The study area extends within the Arduwy Landscape of Outstanding Historic Interest; the Aberglaslyn Landscape of Outstanding Historic Interest lies directly to the west. An assessment of significance of the impact on historic landscape areas (ASIDOHL) was identified as being outside the scope of this report in the WSI relating to the production of a desk-based assessment (Cotswold Archaeology, 2016). It is therefore not proposed to undertake an ASIDOHL as part of this DBA as the relevant landscapes are primarily terrestrial rather than marine.
- 1.15. The objectives of the DBA of archaeology in the marine environment will be:
- to identify designated heritage constraints within the study area;
  - to gather information on non-designated recorded heritage assets within the study area;
  - to assess the aforementioned baseline data and offer an analysis of the potential for currently unrecorded heritage assets within the Site;
  - to assess, as far as possible, the likely depth and extent of below-ground archaeological deposits within the Site; and
  - to assess the significance of the heritage assets and, where possible, the impact of the ground investigations upon the significance of these assets.



- Site: Marine Project Area extended (23/01/2017)
- Area containing Permanent and Temporary works
- Extended marine survey corridor (10/04/2017)
- CA wider study area used in DBA

- GI locations (07/12/2016)**
- ◆ Borehole
  - ⊕ Conical Penetration



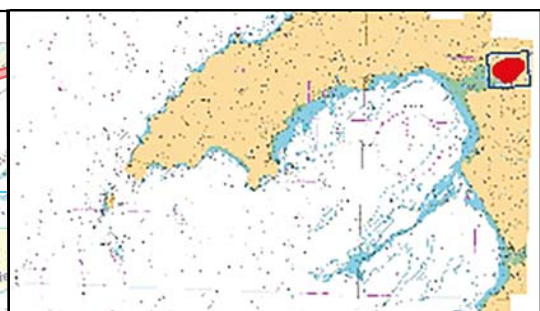
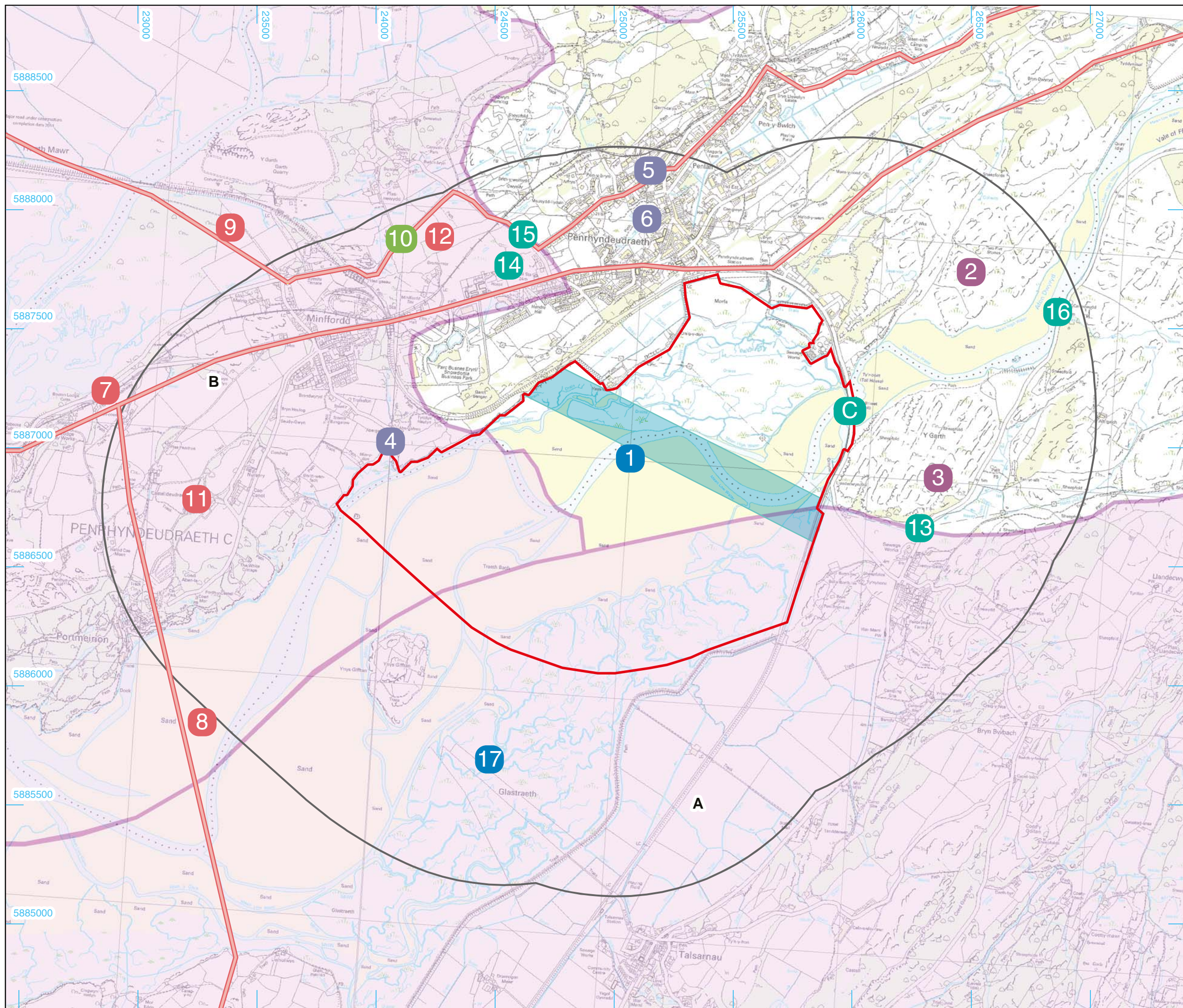
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**PROJECT TITLE**  
**Visual Impact Provision (VIP), Snowdonia Scheme Marine Archaeological Desk-Based Assessment**

**FIGURE TITLE**  
**Location of marine parts of the Search Area for Permanent and Temporary Works (Site).**

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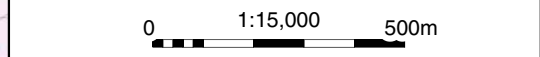


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- Site: Marine Project Area extended (23/01/17)
- Study area
- Extended marine survey corridor (13/02/17)

- Referenced Heritage Assets**
- 1 Modern
  - 1 Post-medieval
  - 1 Medieval
  - 1 Roman
  - Roman Roads
  - 1 Bronze Age
  - 1 Prehistoric
  - Historic Landscape Area



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**PROJECT TITLE**  
 Visual Impact Provision (VIP), Snowdonia Scheme  
 Marine Archaeological Desk-Based Assessment

**FIGURE TITLE**  
 Referenced heritage assets

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## 2. METHODOLOGY

- 2.1. The methodology employed for this assessment is based upon key professional guidance including predominantly the *Standard and Guidance for Historic Environment Desk-Based Assessment* (Chartered Institute for Archaeologists, 2014); and Cadw's *Conservation Principles* (2011).
- 2.2. This assessment considers a 1km study area surrounding the Site (Figure 2) but, where informative, may also utilise historic environment evidence and heritage assets in the wider environs. The assessment of information from a study area ensures that data sources provide sufficient contextual information about the Site and its environs from which to assess known and potential impacts on the heritage resource.
- 2.3. Known and potential heritage assets within the study area are discussed in Section 4 and a gazetteer of known heritage assets has been compiled, and is presented as Appendix A. Heritage assets are referred to in the text by a unique reference number **1**, **2**, etc. or in the case of designated assets, **A**, **B**, etc., and are illustrated on Figure 2.

### ***Data acquisition***

- 2.4. Historic environment data was requested in July 2016 from the Gwynedd Archaeological Trust (GAT) historic environment record (HER). These data relate to all known non-designated heritage assets recorded at the time of enquiry, and support Cadw's records of designated heritage assets, including details on monuments, buildings, findspots, historic land-use and previous archaeological investigations.
- 2.5. In addition the following resources were consulted:
- Cadw records of Scheduled Monuments, Listed Buildings, Registered Parks and Gardens and the Register of Landscapes of Outstanding Historic Interest in Wales;
  - Records of wrecks and obstructions held by the UK Hydrographic Office (UKHO);
  - The GAT HER for details of previously completed archaeological works in the vicinity and recorded historic assets including assets recorded under specific

projects such as the Arfordir - Coastal Heritage project (Glamorgan-Gwent Archaeological Trust Ltd., n.d.);

- National Monument Records for Wales (NMRW) records held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW);
- Aerial photographs held by the Welsh Assembly Government (WAG) and/or the RCAHMW including those acquired by the Royal Air Force (RAF) and Ordnance Survey (OS);
- Historic charts, records and sailing directions held by the UKHO;
- Specific sources dealing with the area including the Tremadog Bay and Dwyryd Estuary Marine Character Area 14 documents (Natural Resources Wales, 2015);
- British Geological Survey (BGS) GeolIndex Offshore for any previous geotechnical or geophysical surveys in the area; and
- Relevant national and local planning policy documentation.

### ***Previous archaeological investigations***

2.6. The Dwyryd Estuary was included in the *Coastal Erosion Survey: Aberadon to Aberdyfi* (Gwynedd Archaeological Trust, 1996) which assessed the effects of coastal erosion on heritage assets. In the case of the area of Traeth Mawr, Traeth Bach and Talsarnau it was noted that, largely owing to modern development of the coastline, very little coastal archaeology predating the 19<sup>th</sup> century was observed.

2.7. The study area also overlaps the southern extent of the A487 assessment and excavation project which terminates in Minffordd (Hyder Consulting, 2013). This report identified evidence of Bronze Age, Roman and medieval activity along the route of the A487.

2.8. No marine surveys or walkover assessments of the Traeth Bach area of the Dwyryd Estuary were identified.

### ***Limitations***

2.9. This assessment is principally a desk-based study and utilises secondary information derived from a variety of sources, only some of which have been directly examined for the purpose of this assessment. The assumption is made that these data, as well as those derived from other secondary sources, are reasonably accurate. The records held by the GAT HER and RCAHMW NMRW are not a record

of all surviving heritage assets, but a record of a wide range of known archaeological and historical components of the historic environment. It is unlikely that the information held within it is complete so it cannot preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

### ***Significance of heritage assets***

- 2.10. The historic environment according to Planning Policy Wales (Welsh Government, 2016) is defined as the '*encompassing archaeology and ancient monuments, listed buildings, conservation areas and historic parks, gardens and landscapes.*' Designated heritage assets include World Heritage Sites; Scheduled Monuments; Listed Buildings; Protected Wreck Sites; Registered Parks and Gardens; Registered Battlefields; and Conservation Areas. Non-designated heritage assets include sites held on the HER, in addition to other elements of the landscape understood to have a degree of significance meriting consideration in planning decisions (see below, Section 3).
- 2.11. Assessment of the heritage value (significance) of a site sets out to identify how particular elements of a place and different periods in its evolution contribute to, or detract from, the identified heritage values associated with the asset.
- 2.12. Current national guidance for the assessment of the significance of heritage assets is based on criteria provided by Cadw in *Conservation Principles for the sustainable management of the historic environment in Wales* (2011).
- 2.13. Further information on good practice in implementing historic environment policy in the Framework is provided within Cadw's *Conservation Principles*. This document provides advice on the assessment of the significance of heritage assets in support of applications for planning permission, and emphasises that the information required regarding heritage significance should be no more than would be necessary to inform the planning decision.

## **3. PLANNING POLICY**

- 3.1. A full summary and description of legislation and policy relating to archaeology in Wales and the marine environment can be found in Appendix C. The relevant legislation and policies are listed below.

### ***Legislative framework, national planning policy and relevant sector guidance***

- 3.2. The primary guidance/policy on archaeology for Wales is contained in:

- Planning Policy Wales (Welsh Government, 2016);
- Welsh Office Circular 60/96 *Planning and the Historic Environment: Archaeology* (Welsh Office, 1996).
- Ancient Monument and Archaeological Areas Act 1979;
- Town and Country Planning Act 1990;
- The Planning and Compulsory Purchase Act 2004;
- Planning (Listed Buildings and Conservation Areas) Act 1990;
- Welsh Office Circular 61/96 *Planning and the Historic Environment: Historic Buildings and Conservation Areas*.

### **Marine Legislation / National Policy**

3.3. The primary legislation in relation to the marine zone is set out by the *Marine and Coastal Access Act 2009*. This is supplemented by statutory controls related to archaeological material in the marine and intertidal zones, which includes:

- Protection of Wrecks Act 1973;
- Ancient Monuments and Archaeological Areas Act 1979;
- Protection of Military Remains Act 1986;
- Merchant Shipping Act 1995; and
- Treasure Act 1996.

3.4. This legislation is further supported by the UK Marine Policy Statement (HM Government, 2011).

3.5. A strategic assessment of the Irish Sea (Strategic Environmental Assessment 6: Irish Sea (SEA 6)) was also carried out which includes an assessment of archaeology.

### **Local planning policy**

The elements of the Dwyryd Estuary covered by the Site fall within Snowdonia National Park and is covered by the Eryri Local Development Plan 2007 -2022 (Snowdonia National Park Authority, 2011). Key policies in this plan relating to archaeology and heritage include:

- Strategic Policy A: National Park Purposes and Sustainable Development (A);



- Strategic Policy B: Major Development (B);
- *Development Policy 1: General Development Principles (1); and*
- Development Policy 8: Protection of Non Designated Sites (8).

#### 4. OVERVIEW OF THE HERITAGE RESOURCE

##### ***Introduction***

- 4.1. This section provides an overview of the historical and archaeological background of the study area, and the wider landscape, in order to provide a better understanding of the context and significance of heritage assets that may be affected by the proposed ground investigation. The assessment also seeks to identify the potential for encountering buried archaeological remains whilst undertaking ground investigations and to predict their likely nature, date, extent and condition. A determination is then also made of the significance of any such affected archaeological remains (Section 5).
- 4.2. Designated and non-designated heritage assets within the study area are recorded in the gazetteer Appendix A. Figure 2 provides an illustration of those recorded heritage assets within the environs of the Site, which are considered to be relevant to the assessment of its historical development and archaeological potential and that of its surroundings.

##### ***Summary of designated heritage assets within the Site***

- 4.3. There are no World Heritage Sites, Scheduled Monuments, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields or Conservation Areas with the Site.
- 4.4. The southern part of the Site extends into the boundary between the Arduwy Landscape of Outstanding Historic Interest (**A**) to the east, and the Aberglaslyn Landscape of Outstanding Historic Interest (**B**) to the west (Figure 2).
- 4.5. The Pont Briwet (**C**) railway bridge is listed twice as a Grade II Listed Building on either side of the Dwryd at Penrhyndeudraeth and Talsarnau (Figure 2). This is located within the northern limit of the Site, c. 20m west of the Site boundary.

##### ***Summary of non-designated and potential heritage assets***

- 4.6. Within the Site there is one wreck (**1**) recorded by the RCAHMW NMRW, located c. 200 metres from the south side of Penrhyndeudraeth toll bridge. The wreck is described as an amphibious vehicle and is discussed further below.

4.7. There are no wrecks or obstructions recorded by the UKHO within the study area.

#### ***Prehistoric period (pre-AD 43)***

4.8. There is limited direct evidence for prehistoric activity within the study area. The identification of intertidal peats to the north of Tremadog Bay at Afon Dwyfor and Afon Wen (Natural Resources Wales, 2015) may also suggest a higher potential for finding similar deposits in the river Dwyryd. On the north side of the river Dwyryd, c. 660m north-east of the Site, there is a sheep shelter or cist (**2**) recorded by in the HER as prehistoric (Figure 2). A hut circle (**3**) is also recorded on the south side of the river Dwyryd, c. 410m east of the Site (Figure 2). It has also been suggested that the distribution of Mesolithic flint scatters in the wider area of Tremadog Bay indicates the usage of coastal resources (Gwynedd Archaeological Trust, 1996).

4.9. Extensive peat deposits have also been identified near Snowdonia Business Park, c. 575m north of the Site. These date to the 2<sup>nd</sup> to 3<sup>rd</sup> millennium cal BC, and pollen samples suggest Bronze Age landscape development (Hyder Consulting, 2013). Bog oak was also identified within the peat, however no tool marks or signs of working were observed. There is additional evidence for Bronze Age activity within the study area in the form of two find spots in Penrhyndeudraeth; a sword (**4**) within the northwestern boundary of the Site at Abergafren, and two bronze axe (**5** and **6**) c. 450m and 280m north of the Site (Figure 2).

4.10. Although the evidence for activity during the prehistoric period is primarily of a terrestrial nature, it may be inferred that there is also the possibility that the marshes and marine zone within the Site were also being used. If present within the Site, artefactual material could include fish traps, log boats, hooks or even evidence of terrestrial habitation depending on changes in coastal morphology.

#### ***Roman period (AD 43 – AD 400)***

4.11. Within the wider context of north Wales there is evidence for Roman maritime trade, including the discovery of a Graeco-Italic anchor from the 3<sup>rd</sup> or 2<sup>nd</sup> century BC at Porth Felen, Aberdaron (Gwynedd Archaeological Trust, 1996). Within the study area Roman activity is most clearly expressed by Roman roads **7 – 10** which run east to west through Penrhyndeudraeth (**7**, **9** and **10**), and also cross the Dwyryd Estuary at Portmeirion c. 910m west of the Site (**8**), and also crosses 2km north-east of the Site at the Vale of Ffestiniog (**7**) (Figure 2). These include part of a Roman road (**7**) between Segontium, Pen Llystyn and Tomen y Mur (Figure 2). There is

additional direct evidence for Roman activity in the environs of the Site in the form of three silver coins (**11**) found at Bron Eryi, c. 615m west of the Site (Figure 2).

- 4.12. As with the evidence for the prehistoric period, identified Roman remains are primarily terrestrial in nature. It is also likely that the marine environment of the Dwyryd Estuary was utilised during this period. Although Roman remains are thought highly unlikely to be encountered within the site, possible artefactual material could include ships' timbers, artefacts relating to cargoes, or evidence of terrestrial habitation including construction along the historic waterfront.

#### ***Medieval period (AD 400 – 1539)***

- 4.13. Following the Roman departure, the Kingdom of Gwynedd developed in this part of north Wales, although there is limited archaeological evidence for this and many accounts appear to be based in myth (Gwynedd Archaeological Trust, 1996). There is no direct evidence of medieval activity within the Site, and even within the study area evidence of medieval activity appears to be limited to the reuse of the Roman road (**7**) as a pre-turnpike road (**12**) (Figure 2) .
- 4.14. A battle between Trehaern ab Caradoc (the Prince of North Wales) and Gruffydd ab Cynan is reported to have occurred on the Penrhyndeudraeth peninsula in the area between Traeth Bach and Traeth Mawr in 1073 (Lewis, 1849). There is no archaeological evidence for this in the HER or NMRW however, and no suggestion that there may have been a maritime element to the battle has been identified.
- 4.15. To the south of the study area at Ty Gwyn y Gamlas, c. 2.2km south of the Site, there is a ferry embarkation point which may have been canalised in the middle ages to improve access to the wharf by ships. It is reported that smaller ships were still using this in the post-medieval period and were able to deposit freight within a few hundred yards of the church at Ty Gwyn y Gamlas (Lewis, 1849).
- 4.16. Although there is little direct evidence of activity during the medieval period, and that which exists is limited to terrestrial remains, it is possible that the Site was in use during this period. As with Traeth Mawr to the north there may be the potential for medieval crossing points (Hyder Consulting, 2013). It is unclear what form these would take but may include infrastructure related to ferries, or crossing points which could be walked at low tide, which may have been marked.

### **Post-medieval period (1540 – 1800)**

- 4.17. In the wider context of Tremadog Bay, the fishing industry appears to have played an important role in the region from the medieval period. By 1565 Aberdyfi was noted as a centre for herring fishing, and Pwllheli was also reported to have an economy primarily based on herring (Gwynedd Archaeological Trust, 1996).
- 4.18. During this period, the gradual increase in coastal trade around Tremadog Bay brought with it a developing shipbuilding industry. In 1701 only one ship had been built in the county of Gwynedd, however ship building appears to have returned to Barmouth and Pwllheli by 1759 (Gwynedd Archaeological Trust, 1996).
- 4.19. The HER indicates that Penrhyndeudraeth and Talsarnau also developed considerably during the post-medieval period. This includes evidence of managed waterways such as the channelled stream at Talsarnau (**13**), and a notable increase in quarrying activities around Penrhyndeudraeth (**14** and **15**) c. 600m north of the Site (Figure 2). There is also evidence of maritime infrastructure related to quarrying in the form of a quay for the transportation of the slate (**16**) at Cei Newydd, c. 900m north-east of the Site (Figure 2). In 1744 there are also records of attempts to reclaim the area of Traeth Bach which had previously been designated as waste land. This is specified in warrants from February 21 of that year, with an application to lease the “*parcel of waste ground called Traeth Mawr and Traeth Bach ... overflowed by the sea at high water*” (Shaw, 1903). It is unclear, however, where this parcel of land corresponds to on a modern map, or how it was used.

### **Modern period (1801 – present)**

- 4.20. In 1806 an Act of Parliament was obtained to *inclose* common and waste ground adjoining the parish of Llandanwg, including marshes in the intertidal area of Traeth Bach (Lewis, 1849). This led to the construction of sea-walls and defences at Talsarnau between 1809 and 1810 (Gwynedd Archaeological Trust, 1996), elements of which are still visible c. 400m south of the Site (Figure 3). On the northern side of the Penrhyndeudraeth peninsula more extensive efforts were made to reclaim Traeth Mawr for agricultural land with the William Madocks construction of the Great Embankment, commonly referred to as the Cob (Figure 3), which was completed in 1811 (Hyder Consulting, 2013). This was a large construction project and there are indications that there was a ship or boat building capacity in Traeth Bach evidenced by the hiring of boats from there to build the Cob (Hyder Consulting, 2013).

- 4.21. In the wider Tremadog Bay area, Portmadoc became well known for building “western ocean yachts” between 1891 and 1913 (Gwynedd Archaeological Trust, 1996). These were small wooden merchant sailing vessels, which were themselves also built in Traeth Mawr and Traeth Bach, as well as requiring the development of supporting industries such as foundries, sail-lofts and rope walks (Gwynedd Archaeological Trust, 1996). These vessels were the primary type of craft in use in the area, and even continued to be used heavily after steam-powered vessels became more abundant from the 1830s onward (Gwynedd Archaeological Trust, 1996). The boom in maritime trade during this period is largely connected to the increase in slate quarrying, and the need to transport the slate by sea. As noted earlier, there is evidence for quarrying around Penrhyndeudraeth and Talsarnau from the post-medieval period, which also showed direct evidence for maritime transport in the form of quay used to transport the slate (**16**) (Figure 2). Modern evidence of this trade is illustrated by a slate wreck (**17**), c. 490m south of the Site. This is the wreck of a small wooden boat, partially buried in sand, still carrying a cargo of slate, which was discovered in 1986 and thought to date to c. 1845 (Gewefan gymunedol: Talsarnau, n.d.). There are also reports that similar boats were used as ferries in the area, one of which sank with the loss of eight lives in 1862 (Gewefan gymunedol: Talsarnau, n.d.).
- 4.22. The coastal slate trade was relatively short lived, in large part due to the arrival of the railway in the 1860s (Gwynedd Archaeological Trust, 1996). In the Dwyryd Estuary this also led to the construction of the Traeth Bach road and railway bridge, Pont Briwet (**C**) (Figure 2). This is a twice designated Grade II listed building of timber construction with a metalled carriageway, completed in 1867 and located at the eastern limit of the Site. Coastal shipping associated with the slate trade appears to have finally come to an end with the advent of World War I, and the prohibition of exporting to the considerable German market (Gwynedd Archaeological Trust, 1996).

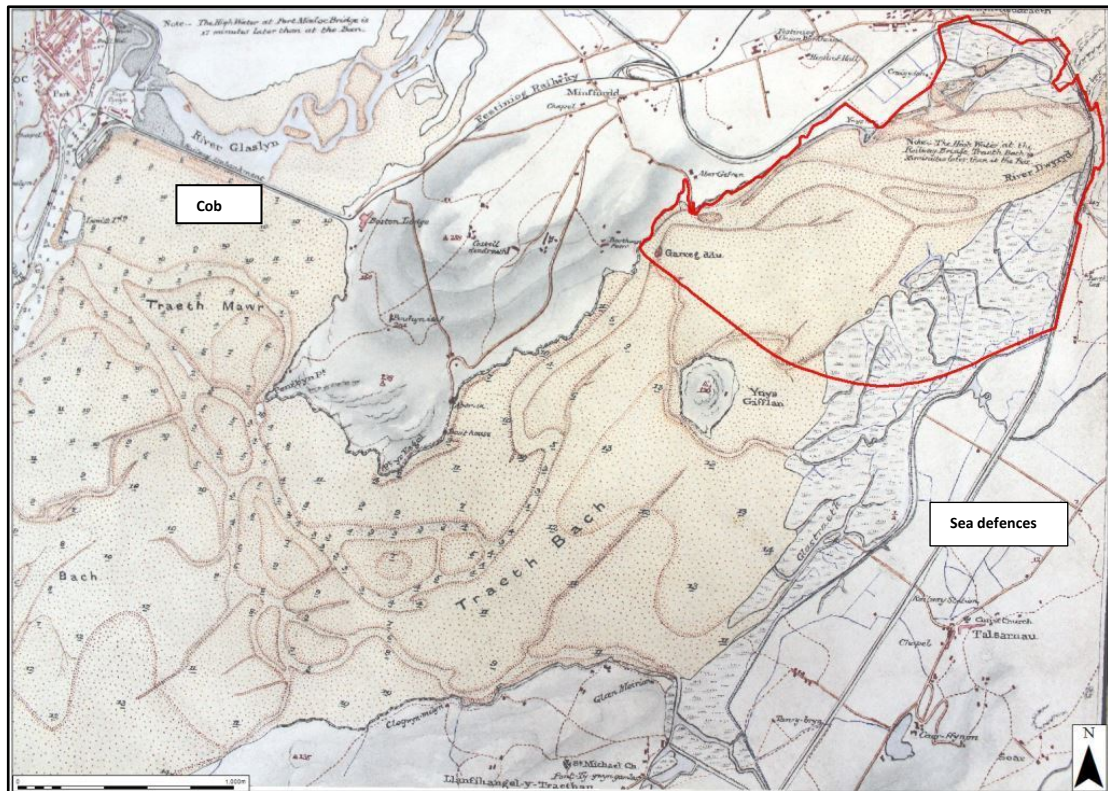


Figure 3 1889 Admiralty chart with Site indicated in red

4.23. Both Pont Briwet and the Cob can be seen on the Admiralty chart of 1892 (Figure 3 1889 Admiralty chart with Site indicated in red). This chart also indicates that the high water level has changed over the years, which is also supported by oral tradition reported during the investigation of the slate wreck in 1986:

*Whilst chatting with Tomi Gwilym, he mentions that his mother could remember the part of the estuary today covered in grass was during her lifetime nothing but sand. Some of the family then used to place fishing lines quite close to the embankment and succeeding [sic] in catching some skate. This shows how much change has been in a fairly short period of time. (Gewefan gymunedol: Talsarnau, n.d.)*

4.24. This suggests that there has been a trend of deposition in recent history to the north of the Site, possibly associated with the post-medieval construction of sea defences. It should be noted, however, that this may only be a short term trend and the 1892 chart indicates the marshes along the southern edge of the Site have in fact receded by as much as 265m since the area was surveyed.

4.25. The 1889 Admiralty chart (Figure 3) also depicts ditches and channels cut through the saltmarsh within the Site. This is particularly evident in the northern part of the Site where the abrupt angles depicted where the saltmarsh meets the intertidal area suggests that it was deliberately cut back, possibly for peat or to

improve navigation. In the southern area of the saltmarsh, the chart also appears to depict a channel or path from the Traeth Bach bridge, which runs south west before running alongside the railway line. The abrupt angles of this feature indicate that it is anthropogenic in origin.

4.26. There appears to have been continued use of the saltmarshes into the modern period. Assessment of RAF (1946, frames 4015 and 4016) and OS (1971, 266) aerial photographs covering Traeth Bach also appear to show possible tracks or channels across the saltmarshes on both the north and south sides of the channel.

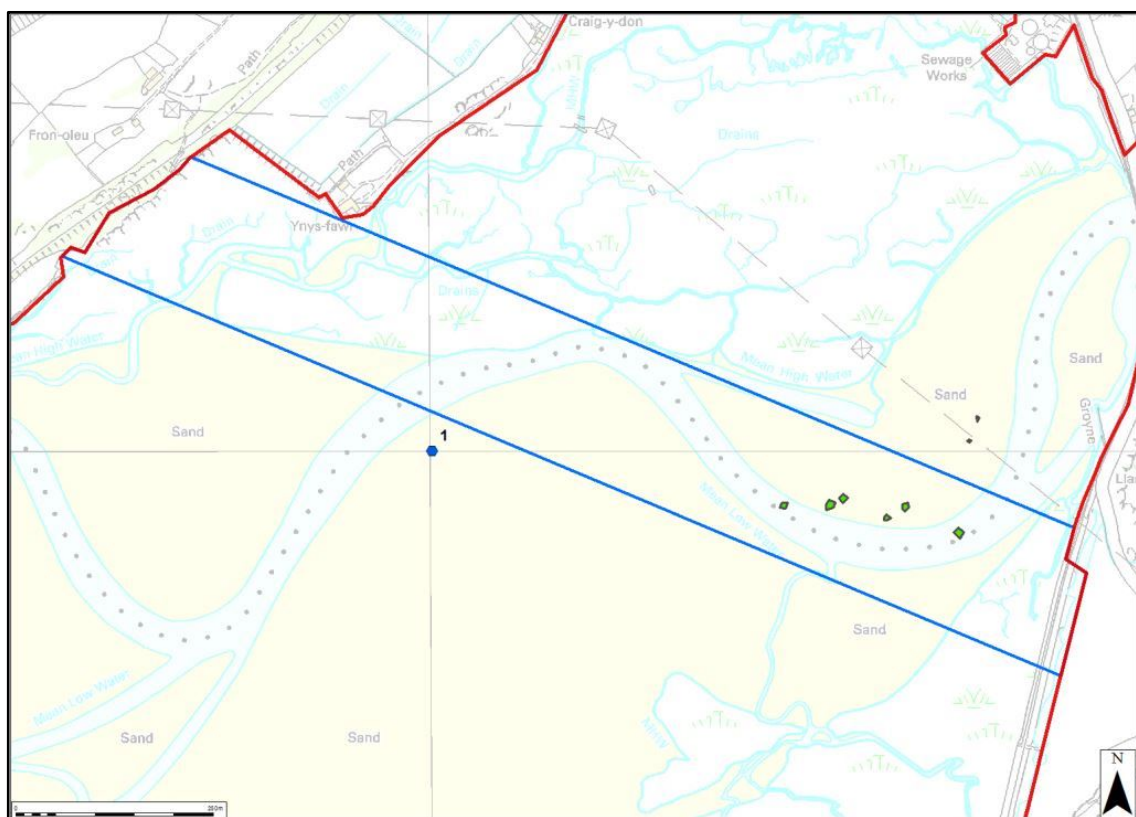


Figure 4 Location of landing craft (1) and anomalies (green) identified in 1946 RAF aerial photographs in relation to the extended marine survey corridor (blue)

4.27. More recently, the NMRW records the wreck of an amphibious vehicle within the Site (1) (Figure 2). No additional information is provided on the wreck indicating details of its construction or date of loss. Assessment of RAF (1946, frames 4125 - 4127) and OS (1971, frames 202, 256 and 257) aerial photographs covering its location show no signs of the amphibious vehicle. The aerial photographs from 1946 do however indicate a spread of possible debris (Figure 4) within the Site, 500m to the east of the landing craft. It is unclear from the resolution of the photographs what these objects are, and it is possible that they are natural features, but they seem to

be spread in a east-west alignment over c. 240m (Figure 4). No similar objects are visible in the 1971 OS aerial photographs or modern coverage, viewable in Google Earth, of the area suggesting they have either been removed or buried by sand.

## 5. STATEMENT OF SIGNIFICANCE

### ***Previous disturbance within the Site***

- 5.1. No recent accounts of dredging the river Dwyryd have been identified, either of the river itself or for works in other parts of the estuary. There are some suggestions of water management and the construction of quays during the medieval period which could possibly have truncated earlier deposits. No evidence for these types of features has been identified within the Site, and if similar unidentified features are present they are likely to be limited to confined areas.
- 5.2. There are some indications that the areas of marshes and fields to the north and south of the Traeth Bach have changed in shape and size. This is likely to be owing to natural processes resulting from the changing course of the river Dwyryd over the sands, but may also be associated with post-medieval coastal defences. It is possible that, as a result of these changes, buried archaeological deposits within these areas may have been eroded and lost. It is also possible that post-medieval and modern coastal defences may have truncated earlier deposits, although these do not appear to have been located within the Site.

### ***Significance of recorded heritage assets within the Site***

- 5.3. Only two recorded heritage assets have been identified within the Site. The Grade II listed bridge, Pont Briwet (**C**), does not fall within the scope of this assessment of below ground archaeology in the marine environment. There is also very little information available relating to the amphibious vehicle (**1**).
- 5.4. If the amphibious vehicle (**1**) is still present its significance would likely be derived from its evidential value relating to its construction and use. It may also hold historical and communal value depending on the circumstances of its loss. If this is a military craft then it may inform our understanding of the history of Traeth Bach at the time of its loss. It may also hold communal value if the circumstances of its loss have entered local oral tradition, although no evidence for this has been identified as yet.



### ***Potential for the presence of archaeological remains within the Site***

5.5. Owing to changes in coastal morphology it is difficult to determine what activities would have been possible within the Site at different periods. It is likely that these would have been a combination of marine, intertidal and terrestrial elements ranging from fishing to land management. Peat deposits in nearby Penrhyndeudraeth (Hyder Consulting, 2013) suggest that sea levels were at one point higher than at present, however additional information is needed to determine if this affected habitation patterns. It is likely that buried peat deposits could also be present within the Site.

### ***Prehistoric***

5.6. There is some evidence for prehistoric activity within the study area around Traeth Bach. If present within the Site, artefactual material could include fish traps, log boats, hooks or even evidence of terrestrial habitation depending on coastal morphology. The potential for the preservation of evidence relating to these activities is higher in the marine environment than it would be for terrestrial sites. Most likely this material would be present in the historical intertidal area, which differs from the modern intertidal area although there is limited evidence to indicate where this was. The potential for encountering this material is thought to be low. If buried archaeological material from this period is identified it may have high evidential value.

### ***Roman***

5.7. Any evidence of Roman maritime activity within the Dwyrdd Estuary identified in artefactual material recovered from the Site could include ships' timbers, artefacts relating to cargoes, or evidence of terrestrial habitation including construction along the historic waterfront. Very few Roman wrecks have been identified within the UK and it is thought that the potential for encountering one within the Site is very low. If buried archaeological material from this period is identified it may have high evidential value.

### ***Medieval***

5.8. Buried archaeological material dating from the medieval period is most likely to be associated with terrestrial activities such as land management. As with Traeth Mawr to the north there may be the potential for medieval crossing points (Hyder Consulting, 2013). It is unclear what form these would take but may include infrastructure related to ferries, or crossing points which could have been walked at low tide and may have been marked. The potential for buried archaeological material

from the mediaeval period is thought to be low. If buried archaeological material from this period is identified it may have medium to high evidential value.

### ***Post-medieval and modern***

5.9. From the post-medieval to modern periods there was an increase in boat-building and coastal trade, primarily linked to slate quarrying. This can be seen in the study area in the slate quay (**16**) to the east of the Site and the slate boat (**17**) to the south of the Site. There are also references to ferries operating in Traeth Bach, one of which is reported to have sunk in the area (Gewefan gymunedol: Talsarnau, n.d.). It may be that there are more small vessels similar to the slate-carrying boat, or their cargoes, buried in the sands of Traeth Bach.

5.10. Evidence from historic mapping and aerial photographs indicates that the areas of saltmarsh were in use, as evidenced by the depiction of channels and trackways. It is therefore possible that evidence of this activity will be encountered during any work involving ground disturbance within the saltmarshes.

5.11. There is also the recorded position of an amphibious vehicle within the Site (**1**) and possible debris identified in aerial photographs taken in 1946, located within the extended marine survey corridor. It is therefore considered that there is medium to high potential for buried archaeological material from these periods within the Site. This archaeological material may be of low to medium evidential value.

## **6. IMPACT ASSESSMENT**

### ***Indirect impacts***

6.1. There are no indirect impacts to heritage assets anticipated during the ground investigation works.

### ***Direct impacts***

6.2. Any direct impacts associated with the ground investigation works within the marine elements of the Search Area for Permanent and Temporary Works would be limited to any vertical shafts, boreholes or vibrocores that may need to be excavated, where the impacts would be very localised (Figure 1). The potential for encountering buried archaeological material during these works is thought to be negligible, however any deposits of archaeological interest encountered are likely to be associated with the formation of the palaeo-landscape.

## 7. CONCLUSION

- 7.1. There is very little direct evidence of past human activity within the Site, which may in large part be a result of the limited amount of archaeological work carried out in Traeth Bach, as well as the possibility of archaeological material being eroded away or buried as a result of coastal morphology and the changing course of the river Dwryd. As a result of this, much of the potential for buried archaeological remains has been inferred from archaeological evidence from terrestrial sites in Penrhyndeudraeth and Talsarnau. The Site should therefore be approached with some degree of caution when considering monitoring and mitigation measures.
- 7.2. The most likely deposits of archaeological interest to be encountered are buried peats which could be used to inform our understanding of the palaeo or prehistoric environment at the time of their deposition. Further investigation of the development route, consisting of a combination of geophysical survey and monitoring of ground investigation works would be required to identify if peats are present.
- 7.3. Boat-building and coastal trade appear to have been most prevalent in the Traeth Bach part of the Dwryd Estuary during the post-medieval and modern periods. If buried archaeology is encountered within the Site it is most likely to take the form of small boats or cargoes similar to the slate-carrying wreck (17) identified to the south of the Site. Consultation with Cadw and GAT is recommended prior to the ground investigations in order to establish an appropriate monitoring and mitigation strategy.
- 7.4. The supporting written scheme of investigation in relation to the monitoring of site investigations should be consulted for additional information on methodological approaches. These include marine geophysics, site monitoring and a site-specific protocol for archaeological discoveries (PAD) (Cotswold Archaeology, 2016).

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### **Cartographic sources**

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### **Aerial photographs**

#### **RAF verticals**

Frame Number	Sortie Number	Date	Easting	Northing
4015	106G/UK/1455	02/05/1946	261197	338996
4016	106G/UK/1455	02/05/1946	261896	339007
4125	106G/UK/1455	02/05/1946	26077	337161
4126	106G/UK/1456	03/05/1946	260762	337180
4127	106G/UK/1457	04/05/1946	261447	337183

#### **Ordnance Survey verticals**

Frame Number	Sortie Number	Date
202	71-234	21/5/71
256	71-235	21/5/71
257	71-236	21/5/71
266	71-234	21/5/71

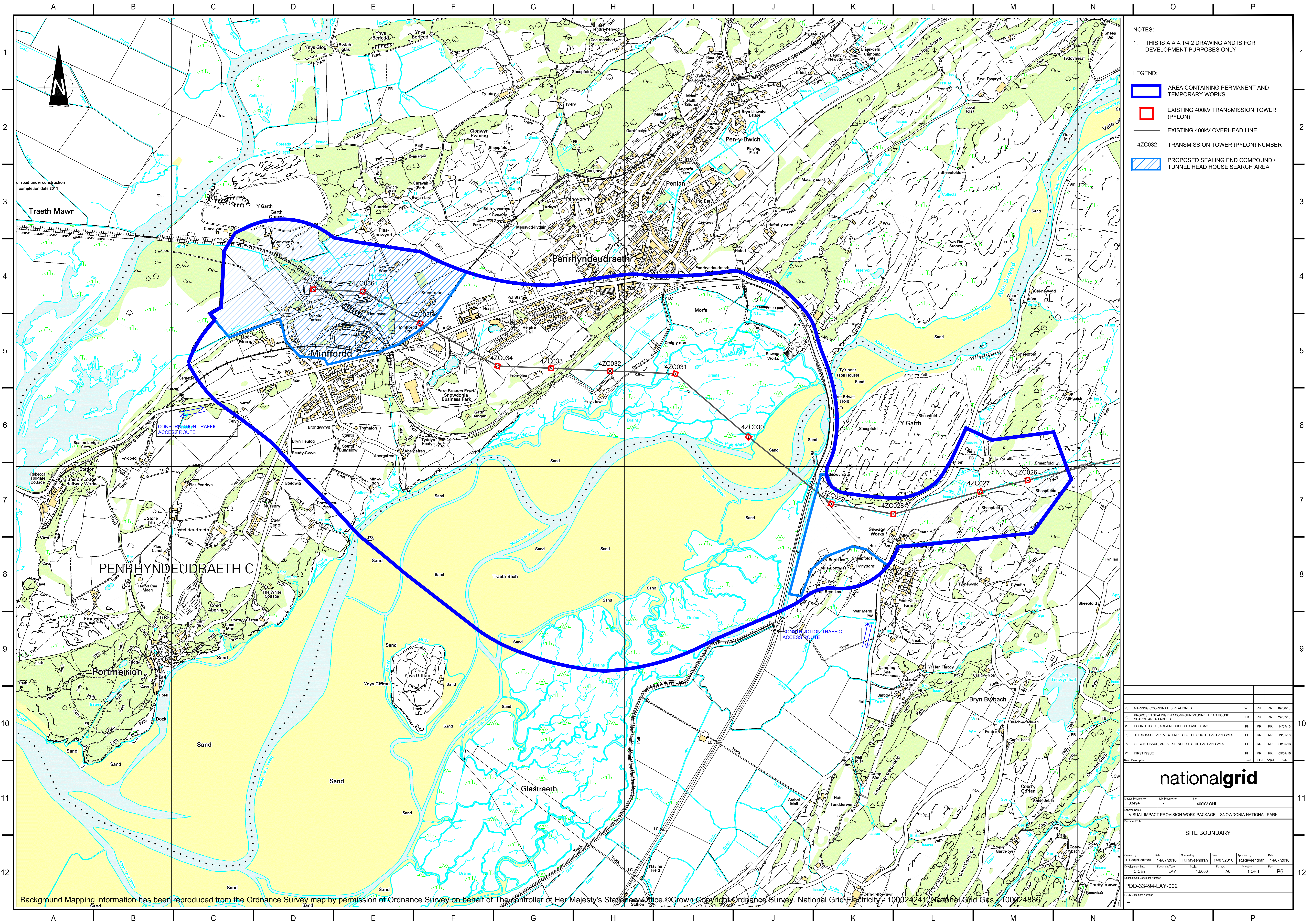
## APPENDIX A: Gazetteer of referenced heritage assets and other elements of the historic environment (marine heritage assets in blue)

Designation	CA number	Source	Original number	Site name	Form	Period	Type	Easting	Northing
Designated heritage assets	A	Cadw	HLW (Gw) 2	Ardudwy	Landscape of Outstanding Historic Interest	NA		261179	328698
	B	Cadw	HLW (Gw) 7	Aberglaslyn	Landscape of Outstanding Historic Interest	NA		258809	340213
	C	NMRW & Cadw	NMRW 6075694, Cadw 26858, Cadw 83464	Pont Briwet	Grade II railway viaduct and road bridge	Post Medieval	Transport	261910	338272
Undesignated heritage assets	1	NMRW	6006345	Un-named wreck. The wreck of an amphibious vehicle is located 200 metres from the south side of Penrhyndeudraeth Toll Bridge.	Wreck	Modern	Maritime	261000	338000
	2	HER	4177	Sheep Shelter or Cist, Nythy Gigfran	Other Structure	Prehistoric	Cairn	262370	338880
	3	HER	6152	Hut Circle and Walling, Y Garth	Domestic	Prehistoric	Hut Circle	262290	338030
	4	HER	4181	Bronze Age Axe Head, Findspot	Find Only	Bronze Age	Findspot	260000	338000
	5	HER	4180	Bronze Age Sword, Findspot	Find Only	Bronze Age	Findspot	261000	339200
	6	HER	4347	Bronze Axe, Findspot, Penrhyndeudraeth	Find Only	Bronze Age	Findspot	261000	339000
	7	HER	17821	Part of Roman Road, Segontium to Pen Llystyn to Tomen y Mur	Transport	Roman	Road	258300	337900
	8	HER	17825	Roman road	Transport	Roman	Road	261004	324436

Designation	CA number	Source	Original number	Site name	Form	Period	Type	Easting	Northing
	9	HER	17812	Roman road	Transport	Roman	Road	257139	339589
Undesignated heritage assets	10	HER	17813	Roman road	Transport	Roman	Road	262909	340179
	11	HER	2298	3 Silver British Coins, Findspot, Castelldeudraeth	Find Only	Roman	Findspot	259200	337700
	12	HER	58447	Route of Pre-Turnpike Road, Minffordd	Transport	Medieval	Road	259980	338850
	13	HER	33921	Channelled Stream, S of Bron y Garth	Water channel	Post-medieval	Water supply and drainage	262230	337790
	14	HER	58448	Quarry Scoops, E of Bron-y-garth Hospital	Extractive pit	Post-medieval	Agriculture and subsistence	260450	338770
	15	HER	20669	Quarry, Meusydd Llydain	Quarry	Post-medieval	Industrial	260500	338900
	16	HER	20671	Slate Quay, Cei Newydd	Quay	Post-medieval	Industrial	262744	338740
	17	HER	7262	Boat, Talsarnau	Wreck	Modern	Maritime	260500	336700

APPENDIX B: Design drawing PDD-33494-LAY-002\_P5





NOTES:  
 1. THIS IS A 4.1/4.2 DRAWING AND IS FOR DEVELOPMENT PURPOSES ONLY

- LEGEND:
- AREA CONTAINING PERMANENT AND TEMPORARY WORKS
  - EXISTING 400KV TRANSMISSION TOWER (PYLON)
  - EXISTING 400KV OVERHEAD LINE
  - 4ZC032 TRANSMISSION TOWER (PYLON) NUMBER
  - PROPOSED SEALING END COMPOUND / TUNNEL HEAD HOUSE SEARCH AREA

Rev	Description	Drawn	Checkd	Appr'd	Date
P6	MAPPING COORDINATES REALIGNED	WE	RR	RR	06/08/10
P5	PROPOSED SEALING END COMPOUND/TUNNEL HEAD HOUSE SEARCH AREAS ADDED	EB	RR	RR	29/07/16
P4	FOURTH ISSUE, AREA REDUCED TO AVOID SAC	PH	RR	RR	14/07/16
P3	THIRD ISSUE, AREA EXTENDED TO THE SOUTH, EAST AND WEST	PH	RR	RR	13/07/16
P2	SECOND ISSUE, AREA EXTENDED TO THE EAST AND WEST	PH	RR	RR	08/07/16
P1	FIRST ISSUE	PH	RR	RR	05/07/16

**nationalgrid**

Master Scheme No: 33494 Sub-Scheme No: 400KV OHL

Scheme Name: VISUAL IMPACT PROVISION WORK PACKAGE 1 SNOWDONIA NATIONAL PARK

Document Title: SITE BOUNDARY

Created by	Date	Checked by	Date	Approved by	Date
P. Hedd/woodhouse	14/07/2016	R. Ravendran	14/07/2016	R. Ravendran	14/07/2016
Development Eng	Document Title	Scale	Format	Drawn	Rev
C. Carr	LAY	1:5000	A0	1 OF 1	P6

National Grid Document Number: PDD-33494-LAY-002  
 REED Document Number:

## APPENDIX C: Planning policy

### ***Legislative framework, national planning policy and relevant sector guidance***

The primary guidance/policy on archaeology for Wales is contained in *Welsh Office Circular 60/96 Planning and the Historic Environment: Archaeology* (Welsh Office, 1996). Development proposals that potentially affect designated assets and their setting are protected through implementation of the *Ancient Monument and Archaeological Areas Act 1979*. The *Ancient Monument and Archaeological Areas Act 1979* sets out a presumption in favour of preservation in-situ concerning sites and monuments of national importance (scheduled).

The primary planning legislation in Wales is the Town and Country Planning Act 1990, the Planning & Compulsory Purchase Act 2004 and the Planning (Listed Buildings and Conservation Areas) Act 1990. However, the Welsh Assembly has produced Planning Policy Wales (Welsh Government, 2016) to provide advice on all aspects of planning policy in Wales. Detailed advice on archaeology in the planning process is contained in Welsh Office Circular 60/96 Planning and the Historic Environment: Archaeology (WO 61/96).

### ***Planning (Listed Buildings and Conservation Areas) Act (1990)***

The Planning (Listed Buildings and Conservation Areas) Act sets out the laws on planning controls with regard of Listed Buildings and areas of special architectural or historic interest (Conservation Areas). The document states that, when making planning decisions with regard to developments affecting Listed Buildings or their settings, the local planning authority or the Secretary of State *shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest that it possesses* (Section 66).

Section 72 of the 1990 Act also states that *with respect to any buildings or other land in a conservation area.....special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area*. It should be noted that the Act clearly refers to land 'in' a conservation area in this regard.

### ***Planning Policy Wales (Edition 8 January 2016)***

This sets out planning policy relating to *Conserving and Improving Natural Heritage and the Coast (Chapter 5)* and *Conserving the Historic Environment (Chapter 6)*. It defines the historic environment as *encompassing archaeology and ancient monuments, listed buildings, conservation areas and historic parks, gardens and landscapes*.

Planning Policy Wales (Welsh Government, 2012) defines a presumption in favour of preservation in-situ of all types of archaeological sites and monuments:

*6.5.1 The desirability of preserving an ancient monument and its setting is a material consideration in determining a planning application, whether that monument is scheduled or unscheduled. Where nationally important archaeological remains, whether scheduled or not, and their settings are likely to be affected by proposed development, there should be a presumption in favour of their physical preservation in situ. In cases involving lesser archaeological remains, local planning authorities will need to weigh the relative importance of archaeology against other factors, including the need for the proposed development. (Welsh Government, 2016, p. 102)*

Planning in Wales is currently overseen by the Assembly Minister for Sustainability and Rural Development through the Planning Division of the Welsh Government.

### **Marine Legislation**

The primary legislation in relation to the marine zone is set out by the *Marine and Coastal Access Act 2009*. This is supplemented by statutory controls related to archaeological material in the marine and intertidal zones, which includes:

Protection of Wrecks Act 1973;

Ancient Monuments and Archaeological Areas Act 1979;

Protection of Military Remains Act 1986;

Merchant Shipping Act 1995; and

Treasure Act 1996.

### **UK Marine Policy Statement**

This legislation is further supported by the UK Marine Policy Statement (HM Government, 2011). One of the high level objectives of this statement is to:

*Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets.*

Specifically in the case of the Dwyrdd Estuary:

*In coastal/intertidal zones and inshore/offshore waters ... Many heritage assets with archaeological interest in these areas are not currently designated as scheduled monuments or protected wreck sites but are demonstrably of equivalent significance.*

*The absence of designation for such assets does not necessarily indicate lower significance and the marine plan authority should consider them subject to the same policy principles as designated heritage assets (including those outlined) based on information and advice from the relevant regulator and advisors...*

*The marine plan authority, working with the relevant regulator and advisors, should take account of the desirability of sustaining and enhancing the significance of heritage assets and should adopt a general presumption in favour of the conservation of designated heritage assets within an appropriate setting. (HM Government, 2011, p. 22)*

### **Strategic Environmental Assessment 6: Irish Sea (SEA 6)**

The Site falls within the area assessed as part of SEA 6 (Wessex Archaeology, 2005). The legislation outlined in this document pertaining to Wales has largely been updated or superseded by the legislation and policies described above. No detailed information is provided in this report relating specifically to the area of the Dwyryd Estuary.

### **Local planning policy**

The area of the Dwyryd Estuary covered by the Site falls within the Snowdonia National Park and is covered by the Eryri Local Development Plan 2007 -2022 (Snowdonia National Park Authority, 2011). The Local Development Plan aims to reflect the land use implications of the National Park Management Plan as well as providing an opportunity to deliver the spatial elements of other plans and strategies at the national, regional and local level. The Eryri Local Development Plan 2007 - 2022 defines heritage assets as *structures and open spaces considered to be of special historic, archaeological, architectural or artistic interest (Listed Buildings, Historic Parks and Gardens and Scheduled Ancient Monuments) along with World Heritage Sites and, in the marine environment, historic wrecks* (Snowdonia National Park Authority, 2011, p. 108). Key policies in this plan relating to archaeology and heritage include:

### **Strategic Policy A: National Park Purposes and Sustainable Development (A)**

*The Local Development Plan seeks to ensure that new development promotes the principles of sustainable development in ways which further National Park purposes and duty whilst conserving and enhancing the National Park's 'Special Qualities'. Proposals which compromise National Park purposes will be refused. The following*

*considerations should be taken into account to help deliver sustainable development in Snowdonia:*

- i. Give the highest priority to the protection and enhancement of the natural beauty, wildlife and cultural heritage.
- xii. Encouragement of developments that conserve, promote and enhance the linguistic heritage of Snowdonia's communities.

***Strategic Policy B: Major Development (B)***

*Major development will not be permitted within the National Park other than in exceptional circumstances where there is demonstrated to be an overriding public need. Proposals for major development will be subject to the most rigorous examination and include an assessment of all the following:*

- iii. the consequences and impact on local communities, the local economy, the environment and the cultural heritage of the National Park of permitting or refusing the development.

*Where the Authority consider that the overall outcome of this assessment will result in an adverse and unacceptable impact on the National Park, permission for such major development will be refused.*

***Development Policy 1: General Development Principles (1)***

*To conserve and enhance the 'Special Qualities' and purposes of the National Park development will only be permitted where all the following apply:*

- x. *Appropriate services and infrastructure can be provided without compromising the quality and character of the landscape and cultural heritage.*

***Development Policy 8: Protection of Non Designated Sites (8)***

*Development which may adversely affect sites that are of archaeological interest or are acknowledged of local heritage importance including sites of industrial archaeology that are not scheduled will:*

- i. *Be judged in terms of the intrinsic importance of the heritage asset and the potential extent of harm.*

- ii. Require where appropriate archaeological assessments and field evaluations before applications are determined.*

*Where proposals are acceptable but may have an adverse effect on a site a condition will be attached to the permission stating that no development should take place until an agreed programme of archaeological work has taken place.*

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