

East Pickard Bay, Angle Peninsula

Heritage Impact Assessment



Prepared for

Bombora WavePower Ltd

By



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| Contents | | Page |
|-----------------|--|-------------|
| | Non-Executive Summary | 3 |
| 1 | Introduction | 5 |
| 1.1 | Project Background and Proposals | 5 |
| 1.2 | Objectives | 5 |
| 1.3 | Legislative Framework | 6 |
| 1.4 | Assessment Methodology (heritage assets) | 8 |
| 1.5 | Assessment Methodology (setting and significance) | 13 |
| 2 | Baseline | 16 |
| 2.1 | Location, Topography and Geology | 16 |
| 2.2 | Conservation Areas | 16 |
| 2.3 | Registered Landscapes, Parks and Gardens | 16 |
| 2.4 | General – Archaeological and Historical | 17 |
| 2.5 | Previous Studies | 21 |
| 2.6 | Cartographic and Pictorial Evidence | 21 |
| 2.7 | Aerial Photographic Evidence | 22 |
| 2.8 | Site Visit | 22 |
| 3 | Identified Heritage Assets | 23 |
| 3.1 | Sites of Archaeological and Historical Interest | 23 |
| 4 | Assessment of Heritage Assets | 27 |
| 4.1 | Potential Direct Impacts of the Development on Heritage Assets | 27 |
| 4.2 | Potential Indirect Impacts of the Development on Heritage Assets | 27 |
| 4.3 | Setting and Significance – Stage 1 | 36 |
| 4.4 | Defining and Evaluating the Setting and Significance of Heritage Assets – Stage 2 and 3 | 37 |
| 4.5 | Summary of Significance and Setting | 38 |
| 5 | Mitigation Recommendations | 39 |
| 6 | Assessment of Residual Impacts | 39 |
| 7 | Bibliography | 40 |
| | Other Sources | 40 |
| 8 | Appendices | 41 |
| 8.1 | Appendix I Figures | 41 |
| 8.2 | Appendix II Aerial Photographs | 48 |
| 8.3 | Appendix III Tithe Apportionment | 49 |
| 8.4 | Appendix IV Plates | 50 |
| 8.5 | Appendix V | 55 |
| | Acknowledgements and Copyright | 55 |
| | Abbreviations | 55 |

Front cover: View north west towards the location of the proposed temporary control centre

| Figures | Page |
|--|-------------|
| Figure 1. HER Assets (green spot), NMR Assets (red spot), Listed Buildings (blue spot), Schedule Ancient Monuments (red polygon) and HLCA (orange) in relation to the development area (red), 1km (radius) study area (blue) and 5km (radius) study area (green). Ordnance Survey base map produced under licence 100058761..... | 41 |
| Figure 2. Detail of Christopher Saxton's County Map of Pembrokeshire, 1578 showing 'Nangle' and 'The blockhowse' on either side of the Milford Haven Waterway © National Library of Wales | 42 |
| Figure 3. Admiralty Map of 1748 by Lewis Morris showing the locations of the 'Old Windmill' and 'Bangeston', both within the study area. © National Library of Wales..... | 43 |
| Figure 4. The 1842 Tithe Map of Angle Parish shows that the development area is situated within open fields of pasture and arable, which form a part of 'Banjeston Demesne' According to Fenton (1811), Bangeston Manor was already abandoned by this date. ©National Library of Wales | 44 |
| Figure 5. The 1 st Edition Ordnance Survey Map is dated 1888-1913. There is no significant change from the tithe map but West Pickard 'Camp' and 'Old Windmill' are now marked..... | 45 |
| Figure 6. Air Ministry Site Plan of RAF Angle from 1943 shows the layout of the airfield and associated sites in great detail. Note the six dispersal pens in the SE corner of the airfield, only one of which survives. The proposed temporary control centre is situated in close proximity to the sites of the removed dispersal pens. | 46 |
| Figure 7. OS Latest Edition Map shows the disused airfield with the perimeter track and dispersal pens marked with dotted lines..... | 47 |

Plates

| | |
|--|----|
| Plate 1. Aerial Photograph from 1950 showing Angle Airfield in a good condition. The six dispersal pens are visible in the south east corner. © Central Registry of Air Photography for Wales | 50 |
| Plate 2. Aerial photograph from 1978 showing Angle Airfield returned to agriculture with plough marks visible across the runways. The hedgerow boundary in the area of the proposed development area and dispersal pits has move slightly to the west compared to the 1st Edition map (Figure 5). © Central Registry of Air Photography for Wales..... | 51 |
| Plate 3. Looking East from Wales Coast Path towards location of proposed cable route which will run along stone wall boundary..... | 52 |
| Plate 4. Looking SE towards proposed cable route where it will run from cliff edge towards existing fenceline. | 52 |
| Plate 5. Looking south along existing boundary cable route location towards East Pickard Bay | 53 |
| Plate 6. Looking north west towards the location of the proposed onshore facilities..... | 54 |

Tables

| | |
|---|----|
| Table 1. Factors for assessing the value of heritage assets (after Table 5.1 DMRB 2009). | 9 |
| Table 2. Significance of effect to heritage assets (matrix)..... | 10 |
| Table 3. Identified heritage assets..... | 23 |
| Table 4. Assessment of direct and indirect effects on heritage assets..... | 32 |

| | |
|--|----|
| Table 5. Stage 3 Assessing value and significance of indirect visual effects on the setting of heritage assets | 37 |
| Table 6. Aerial photographic search results | 48 |
| Table 7. Apportionments relating to the Tithe Map for the Parish of Angle (1842) | 49 |

Non-Executive Summary

Comisiynwyd Archaeoleg Mynydd Du Cyf gan Bombora WavePower Ltd i gynnal asesiad archeolegol ar yr effeithiau posibl ar amgylchedd hanesyddol y cynwysyddion dros dro arfaethedig, y cebl cyfathrebu a'r gosodiadau a'r offer cysylltiedig ym Mae East Pickard.

Mae'r asesiad wedi nodi effeithiau uniongyrchol ac anuniongyrchol posibl y datblygiad arfaethedig ynghyd â chwblhau asesiad o'r lleoliad a nodi arwyddocâd asedau treftadaeth uchel eu gwerth.

Paratowyd yr asesiad archeolegol i safonau proffesiynol Sefydliad Siartredig yr Archaeolegwyr, a bwriedir iddo fodloni'r Safon a'r Canllawiau ar gyfer Asesiadau Desg Archeolegol (2014).

Black Mountains Archaeology Ltd was commissioned by Bombora WavePower Ltd to carry out an archaeological assessment on the potential impacts on the historic environment of the proposed temporary containers, communications cable and associated fixings and equipment at East Pickard Bay.

The assessment has identified the potential direct and indirect effects of the proposed development together with an assessment of the setting and significance of high value assets.

The archaeological desk-based assessment has been prepared to the professional standards of the Chartered Institute for Archaeologists and is intended to meet Standard and Guidance for Archaeological Desk-based Assessments (2014).

Summary of Assessment

The assessment has identified the potential direct and indirect effects of the proposed development together with an assessment of the setting and significance of high value heritage assets. A total of 50 heritage assets have been identified. One heritage asset has been identified within the development area; RAF Angle Airfield (NPRN 308209) included with a further 39 heritage assets within a 1km (radius) study area; and for the purposes of the assessment of setting and significance of heritage assets with a value of A or higher, a total of 11 additional sites have been identified within a 5km (radius) study area. The development area is also located within the Milford Haven Waterway Historic Landscape, specifically the West Angle to Freshwater West Coastal Strip (HCLA352), which features the Wales Coast Path and Rhoscrowther area (HCLA341). In addition, the Angle Village Conservation Area sits within the 5km (radius) study area.

The potential direct impact of the development on heritage assets is confined to two sites, RAF Angle Airfield (NPRN 308209, HLCA343) and the West Angle to Freshwater West Coastal Strip (HLCA352). The Magnitude of Direct Effect on RAF Angle Airfield has been assessed as Low

with the Significance of Direct Effect assessed as Slight Significance. Due to previous landscaping work, the potential for buried archaeology in this area must now be considered Low to None and it is unlikely that any archaeological remains will be disturbed during the proposed ground works. No further archaeological mitigation is required.

The West Angle to Freshwater West Coastal Strip has also been assessed as having a Low Magnitude of Direct Effect with the Significance of Direct Effect assessed as Slight Significance. The proposed cable route is largely unobtrusive. A small amount of excavation may be required where it crosses beneath the Wales Coastal Path. However, the area of the coastal path is already disturbed and it is considered the potential for archaeological remains to survive here is Low to None. No further archaeological mitigation is required.

Only one heritage asset has been assessed as having an indirect visual effect by the proposed development: West Angle to Freshwater West Coastal Strip (HLCA352), which has been assessed cumulatively as having Very Slight Indirect Visual Effect. The assessment being largely concerned with the visibility of the proposed cable route from the Wales Coast Path. The setting will also be Very Slightly affected at East Pickard Bay as visibility of the surrounding historic landscape is a key contributor to its significance. However, the effect will be minimised in both areas by the use of existing hedgerows and vegetation to screen the proposed cable route reducing the potential indirect impact.

1 Introduction

1.1 Project Background and Proposals

- 1.1.1 Black Mountains Archaeology Ltd/ Archaeoleg Mynydd Du Cyf was commissioned by Bombora WavePower Ltd to carry out an archaeological assessment on the potential impacts on the historic environment of proposed temporary containers (3no.), bunded fuel tank, chemical toilet, communications cable and associated fixings at East Pickard Bay, which will be present for up to 18 months. The results of which form the present report.
- 1.1.2 Bombora WavePower Ltd are proposing to install an mWave Marine Energy Device offshore of East Pickard Bay. The device requires a communication cable to run from the device to a temporary onshore facilities, as described above, that will be installed on a site in the southeast corner of the disused RAF Angle Airfield, now turned over to agriculture.
- 1.1.3 The communication cable will be laid on the surface of the ground. It will run up the western side of the cliff at East Pickard Bay to a termination box (measuring 100x60x60cm) and anchor point before crossing beneath the Wales Coastal Path and then being laid along the line of an existing wall and field boundaries. The onshore facilities will consist of a c.12m x 18m area containing three shipping containers, bunded fuel tank, chemical toilet and parking for three cars. In preparation the area will be topsoil stripped prior to the installation of a gravel base. The cable and onshore facilities will be removed following the completion of the offshore testing of mWave (18 months).

1.2 Objectives

- 1.2.1 The purpose of a desk-based assessment as set out by the *Chartered Institute for Archaeologists* (2014) is to gain an understanding of the historic environment resource in order to formulate as required:
 - an assessment of the potential for heritage assets to survive within the area of study.
 - an assessment of the significance of the known or predicted heritage assets considering, their archaeological, historic, architectural and artistic interests.
 - strategies for further evaluation whether or not intrusive, where the nature, extent or significance of the resource is not sufficiently well defined.
 - an assessment of the impact of proposed development or other land use changes on the significance of the heritage assets and their settings.
 - strategies to conserve the significance of heritage assets, and their settings.
 - design strategies to ensure new development makes a positive contribution to the character and local distinctiveness of the historic environment and local place-shaping.
 - proposals for further archaeological investigation within a programme of research, whether undertaken in response to a threat or not.

- 1.2.2 To this we can further add that the objectives of desk-based assessment are:
- An assessment of available information to determine the extent and character of heritage assets, in local, regional and national contexts.
 - An assessment of the significance of heritage assets considering all of the cultural heritage values that people associate with it, or which prompt them to respond to it.
 - An assessment of impact (physical or visual) on heritage assets and their setting.
 - The careful consideration and presentation of mitigation recommendations aimed at reducing the impact of the development on heritage assets and their setting.
 - Finally, the presentation of this information in a written report and the preparation and deposition of an archive of data generated by the assessment in line with professional standards.

1.3 Legislative Framework

- 1.3.1 *Planning Policy Wales* (PPW 10th Edition) sets out the land use planning policies of the Welsh Government. Chapter 6 sets out the Welsh Government's policy towards the historic environment. It states "The historic environment of Wales is made up of individual historic features, archaeological sites, historic buildings and historic parks, gardens, townscapes and landscapes, collectively known as historic assets. The most important of these historic assets have statutory protection through scheduling, listing or designation as a conservation area. Other assets are included in formal registers, which identify them as being of special historic interest. Many others make a positive contribution to local character and sense of place. Some, such as buried archaeological remains, have still to be identified. It is important to protect what is significant about these assets and sustain their distinctiveness. Historic assets should be the subject of recording and investigation when they are affected by proposals that alter or destroy them. Historic assets are a non-renewable resource." (PPW 2018, 123-129).
- 1.3.2 Underpinning PPW are a series of legislative powers and TANs. *The Planning (Wales) Act 2015* sets out a series of legislative changes to deliver reform of the planning system in Wales, to ensure that it is fair, resilient and enables development. The 2015 Act also introduces a mandatory requirement to undertake pre-application consultation for certain types of development. The *Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016* defines in *Schedule 4(l)* the parameters and definitions for the requirement of pre-application consultation by Welsh Ministers, particularly in response to the effect of statutory designated monuments, buildings, and parks and gardens.
- 1.3.3 Advice on archaeology and buildings in the planning process is contained in Welsh Office Circular 60/96 Planning and the Historic Environment: Archaeology and Welsh Office Circular 1/98 Planning and the Historic Environment, which updates Welsh Office Circular 61/96 Planning and the Historic Environment: Historic Buildings and Conservation Areas following the Shimizu (U.K.) Ltd. v. Westminster City Council Judgement (February 1997). Detailed advice on Environmental Impact Assessment is contained within Welsh Office Circular 11/99 Environmental Impact Assessment.

- 1.3.4 Any works affecting an ancient monument and its setting are protected through implementation of the *Ancient Monument and Archaeological Areas Act 1979*. In Wales the 1979 Act has been strengthened by *The Historic Environment (Wales) Act 2016*. The 2016 Act makes important improvements for the protection and management of the Welsh historic environment. It also stands at the centre of an integrated package of secondary legislation (Annexes 1-6), new and updated planning policy and advice, and best-practice guidance on a wide range of topics (TAN 24 Historic Environment). Taken together, these will support and promote the careful management of change in the historic environment in accordance with current conservation philosophy and practice. Following adoption of the TAN 24 Historic Environment on 31st May 2017, *Welsh Office Circulars 60/96 Planning and the Historic Environment: Archaeology*; *61/96 Planning and the Historic Environment: Historic Buildings and Conservation Areas*; and *1/98 Planning and the Historic Environment* have been cancelled.
- 1.3.5 The *Ancient Monument and Archaeological Areas Act 1979* and *The Historic Environment (Wales) Act 2016* sets out a presumption in favour of preservation *in-situ* concerning sites and monuments of national importance (scheduled/listed), and there exists in the current Planning Policy Wales (Chapter 6) a presumption in favour of preservation *in-situ* of all types of heritage assets.
- 1.3.6 Cadw are the Welsh Government body responsible for determining applications for Scheduled Monument Consent (SMC) and is a statutory consultee for certain types of developments affecting Scheduled Ancient Monuments, World Heritage Sites and Registered Historic Parks, Gardens and Landscapes, Strategic Environmental Assessments and scoping opinions for Environmental Impact Assessments (PPW 2016). Cadw published their *Conservation Principles* for the sustainable management of the historic environment in Wales in 2011. These principles provide the basis upon which Cadw discharges its statutory duties, makes decisions or offers advice about changes to historic assets. Cadw further advise that the *Conservation Principles* should also be used by others (including owners, developers and other public bodies) to assess the potential impacts of a development proposal on the significance of any historic asset/assets and to assist in decision-making where the historic environment is affected by the planning process (PPW 2016).
- 1.3.7 Important or historic hedgerows (and boundaries) are protected under *The Environment Act 1995 (section 95)*. The *Hedgerow Regulations 1997* (under the 1995 Act) provides protection and guidance for those development/agricultural activities outside of planning. The regulations permit the removal of any hedgerow (including any length of hedgerow) for 'carrying out development for which planning permission has been granted' provided the loss of the hedgerow has been properly assessed against the benefits of the proposed development.

1.3.8 Following review in 1998, a simplified set of assessment criteria was proposed where all substantially complete boundaries (hedgerows) that predate 1845 were to be afforded consideration/protection. The Environment, Transport and Regional Affairs Committee's Report 'The Protection of Field Boundaries' 1999 was acknowledged by Government but no amendments were made to the 1997 regulations. Judicial Review of the application in 2002 of the regulations (Flintshire County Council v NAW and Mr J T Morris) has clarified the interpretation of some of the criteria (see *The Hedgerow Regulations 1997, Schedule 1, Part 2 Archaeology and History* and Section 1.5 below).

1.4 Assessment Methodology (heritage assets)

1.4.1 The assessment of the historic environment includes the interrogation of a number of sources (but not limited to):

- Statutory designated monuments, buildings and landscapes (including conservation areas, parks, gardens and battlefields).
- Regional Historic Environment Record (HER).
- National Monuments Record (NMR).
- Aerial photographic archives.
- Local and national archives.
- Cartographic and documentary sources.

1.4.2 Information on statutory designated sites (World Heritage Sites, Scheduled Ancient Monuments, Listed Buildings, Conservation Areas, Registered Landscapes, Battlefields, Parks and Gardens) was obtained from Cadw (received 10/06/19) and accessed through Cof Cymru - National Historic Assets of Wales (a Welsh Government online mapping resource). Information recorded on the Regional Historic Environment Record (Enquiry received 04/06/19) and National Monuments Record (Enquiry number RC19-0426) were assessed as was collections of aerial photographs held by the Central Register of Air Photography for Wales (received 04/06/19). Cartographic Archives held by The National Library of Wales were also consulted (Enquiry number P16833).

1.4.3 The assessment reviewed the existing information pertaining to the Historic Environment based on a 1km study area centred on NGR SM (1)86652 (2)01391. A selection of statutory designated sites were assessed outside the study area (up to 5km) for the impact to their setting (see Figure 1).

1.4.4 Important or historic hedgerows were assessed according to current legislation that details the following criteria:

- The hedgerow marks the boundary, or part of the boundary, of at least one historic parish or township; and for this purpose, "historic" means existing before 1850.
- The hedgerow incorporates an archaeological feature which is (a) included in the schedule of monuments compiled by the Secretary of State under Section 1 (schedule of monuments) of the Ancient Monuments and Archaeological Areas Act 1979(7); or (b) recorded at the relevant date in a Historic Environment Record.

- The hedgerow (a) is situated wholly or partly within an archaeological site included or recorded as mentioned in paragraph 2 or on land adjacent to and associated with such a site; and (b) is associated with any monument or feature on that site.
 - The hedgerow (a) marks the boundary of a pre-1600 AD estate or manor recorded at the relevant date in a Historic Environment Record or in a document held at that date at a Record Office; or (b) is visibly related to any building or other feature of such an estate or manor.
 - The hedgerow (a) is recorded in a document held at the relevant date at a Record Office as an integral part of a field system pre-dating the Inclosure Acts; or (b) is part of, or visibly related to, any building or other feature associated with such a system, and that system (i) is substantially complete; or (ii) is of a pattern which is recorded in a document prepared before the relevant date by a local planning authority, within the meaning of the 1990 Act, for the purposes of development control within the authority's area, as a key landscape characteristic.
 - There are other criteria relating to rights of way and ecology.
- 1.4.5 Heritage assets are categorised according to the only values that are nationally agreed in the *Department of Transport/Welsh Office/Scottish Office Design Manual for Roads and Bridges Vol. 11 Section 3 Part 2 (HA 208/07 Cultural Heritage) 2007*, amended 2009 (DMRB 2007). A cultural heritage asset is an individual archaeological site or building, a monument or group of monuments, an historic building or group of buildings, an historic landscape etc., which, together with its setting, can be considered as a unit for assessment. Heritage assets are assessed according to the following criteria:
- 1.4.6 Understanding value is subjective beyond any statutory or registered designation and is based on the professional experience and knowledge of the assessor. Other factors do contribute to the overall assessment of value (and significance) of heritage assets and the assessment criteria below contributes to an overall robust assessment framework.

| Value | | | Criteria |
|-------|------------|------------------------|--|
| A* | Very High | International/National | World Heritage Sites (including nominated sites). Assets of acknowledged international importance. Assets that can contribute significantly to acknowledged international research objectives. |
| A | High | National | Scheduled Monuments (including proposed sites). Undesignated assets of schedulable quality and importance. Assets that can contribute significantly to acknowledged national research objectives. |
| B | Medium | Regional | Designated or undesignated assets that contribute to regional research objectives. |
| C | Low | Local | Designated and undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives. |
| D | Negligible | Local | Assets with very little or no surviving archaeological interest. |
| U | Unknown | Unknown | The importance of the resource has not been ascertained. |

Table 1. Factors for assessing the value of heritage assets (after Table 5.1 DMRB 2009).

| Effect | Category | | | | | |
|-----------|------------------|------------------|------------------|---------------------|---------------------|---------|
| | A* | A | B | C | D | U |
| Very High | Very Significant | Very Significant | Very Significant | Significant | Significant | Unknown |
| High | Very Significant | Very Significant | Very Significant | Significant | Significant | Unknown |
| Moderate | Very Significant | Very Significant | Significant | Significant | Slight Significance | Unknown |
| Low | Very Significant | Significant | Significant | Slight Significance | Slight Significance | Unknown |
| None | None | None | None | None | None | None |

Table 2. Significance of effect to heritage assets (matrix).

1.4.7 The criteria below is adapted from notes made in Annex 2 of the DMRB Vol. 11 Section 3 Part 2 (HA 208/07 Cultural Heritage) 2007 that refer to the Scheduling Criteria as set out by the Ancient Monument and Archaeological Areas Act 1979 and The Historic Environment (Wales) Act 2016 and finally Stage 4 Evaluating Relative Importance as set out in ASIDOHL2, Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process (2nd Edition 2007). While comprehensive, the criteria should not be regarded as definitive, rather they are indicators which contribute to a wider judgement based on the professional experience of the assessor and the circumstance and context of the assessment and heritage asset.

1.4.8 **Rarity:** there are some monument categories, which in certain periods are so scarce that all surviving examples which still retain some archaeological potential should be preserved. This should be assessed in relation to what survives today, since elements of a once common type may now be rare.

- Very high: sole survivor of its type.
- High: very few sites of this type are known.
- Medium: the site is not unusual, but cannot be considered common.
- Low: the site is quite common.

1.4.9 **Documentation and association:** the significance of a heritage asset may be enhanced by the existence of records of previous investigations or, in the case of more recent monuments, by the supporting evidence of contemporary written records. Furthermore, any important historical associations relating to the heritage asset, such as institutions, cultural figures, movements or events, will enhance value. The survival of documentation and/or historic association that increases our understanding of a heritage asset will raise its importance, though this is difficult to quantify owing to the extremely varied nature of documentary and historical material. Therefore, a professional judgment is given based on the actual amount or importance of evidence and its academic value.

- Very High: a highly significant, authentic and nationally well-known association(s) and/or complete documentary record, or exceptionally important sources available.
- High: a significant, authentic and regionally well-known association(s) and/or considerable quantity of relevant material, or highly important sources available.

- Moderate: an authentic, but less significant, perhaps locally well-known association(s) and/or some relevant material, or moderately important sources available.
 - Low: unauthenticated or a little known association(s) and/or little relevant material, or only modestly important sources available.
 - None: no known associations and/or relevant material available.
- 1.4.10 **Group Value:** relates to the diversity (or similarity) of elements including their structural and functional coherence. The value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement and cemetery) or with monuments of different periods.
- Very high: largely complete interconnected complex of heritage assets or landscapes (e.g UNESCO World Heritage Site).
 - High: significant survival of an interconnected complex of heritage assets.
 - Moderate: some surviving elements of an interconnected complex of heritage assets; some disintegration has occurred.
 - Low: single or unconnected/unrelated groups of heritage assets.
- 1.4.11 **Survival/Condition:** the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features. The Historic Environment Records (HERs) of the four Welsh Archaeological Trusts note the condition of sites according to the following criteria:
- Intact: the site is intact.
 - Near intact: the site is nearly intact.
 - Damaged: the site has been moderately damaged.
 - Near destroyed: the site has nearly been destroyed.
 - Destroyed: the site has been destroyed.
 - Restored: the site has been restored.
 - Moved: the site has been moved (usually finds).
 - Not known: the condition of the site is not known.
- 1.4.12 To these criteria, we can add the following assessment:
- Very Good: elements surviving in very good condition for their class.
 - Good: elements surviving in good or above average condition for their class.
 - Moderate: elements surviving in moderate or average condition for their class.
 - Fair elements surviving in fair or below average condition for their class.
 - Poor elements surviving in poor condition for their class.

1.4.13 The **Magnitude of the Direct Effects** are outcomes resulting from an assessment of the impact of the proposed development on the heritage asset or landscape. The direct effect of a course of action (e.g. development) can only be assessed once the assessment criteria above has been completed and potential outcomes fully understood (as far as any development proposal or construction design is reasonably understood). The direct effect of the proposed development on heritage assets has been assessed using the following criteria:

- Very high: total loss of the integrity of the heritage asset(s).
- High: significant loss of integrity to the heritage asset(s), significant reduction of group and rarity values.
- Moderate: some loss of integrity to heritage asset(s) and reduction in value.
- Low: slight loss of integrity to heritage asset(s) and value.
- None: no perceived or identified effect, or loss in value.
- Beneficial: development will protect, preserve or enhance the heritage asset resulting in an increase in value.

1.4.14 Assessing **Indirect Effects (visual)** to heritage assets is intrinsically linked to setting and significance (see section 1.6). The criteria below are adapted from standard EIA evaluation criteria and Stage 3 Assessment of Indirect Impacts of Development as set out in *ASIDOHL2, Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process (2nd Edition 2007)*. Assessment is confined to sites of International, National and in some cases Regional value.

- Very severe: the key views and/or essential lines of sight to and from the heritage asset are dominated or obscured by the development resulting in severance of cultural heritage links.
- Severe: the key views and/or essential lines of sight to and from the heritage asset are interrupted by the development resulting in partial severance of cultural heritage links.
- Considerable: the key views and/or essential lines of sight to and from the heritage asset are significantly visible resulting in limited severance of cultural heritage links.
- Moderate: the key views and/or essential lines of sight to and from the heritage asset are visible resulting in some severance of cultural heritage links.
- Slight: the key views and/or essential lines of sight to and from the heritage asset are noticeable resulting in diminished cultural heritage links.
- Very slight: the key views and/or essential lines of sight to and from the heritage asset are noticeable resulting in little discernible severance of cultural heritage links.
- None: the key views and/or essential lines of sight to and from the heritage asset are not noticeable resulting in no severance of cultural heritage links.

1.5 Assessment Methodology (setting and significance)

1.5.1 The *Setting of Historic Assets in Wales 2017 (The Historic Environment (Wales) Act 2016, Annex 6)* explains what **setting** is, how it contributes to the **significance** of a historic asset and why it is important. It also outlines the principles used to assess the potential impact of development or land management proposals on the settings of World Heritage Sites, ancient monuments (scheduled and unscheduled), listed buildings, registered historic landscapes, parks and gardens, and conservation areas. These principles, however, are equally applicable to all individual historic assets, irrespective of their designation.

1.5.2 Certain major developments require pre-application consultation with the local planning authority and, where specialist advice is required, the Welsh Ministers through Cadw. Any development likely to directly or indirectly (visual) effect a statutory designated heritage asset or high value undesignated heritage asset and its setting will likely require 'consultation before grant of permission' under the *Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016, schedule 4 (1)(i) and (ii)* if the proposed development meets any of the following criteria:

- development likely to affect the site of a registered historic park or garden or its setting.
- development is within a registered historic landscape that requires an Environmental Impact Assessment and ASIDOHL2.
- development likely to have an impact on the outstanding universal value of a World Heritage Site.
- development is within a distance of 0.5 kilometres from any point of the perimeter of a scheduled monument.
- development is within a distance of 1 kilometre from the perimeter of a scheduled monument and is 15 metres or more in height, or has an area of 0.2 hectares or more.
- development is within a distance of 2 kilometres from the perimeter of a scheduled monument and is 50 metres or more in height, or has an area of 0.5 hectares or more.
- development is within a distance of 3 kilometres from the perimeter of a scheduled monument and is 75 metres or more in height, or has an area of 1 hectare or more.
- development is within a distance of 5 kilometres from the perimeter of a scheduled monument and is 100 metres or more in height, or has an area of 1 hectare or more.

1.5.3 An assessment of the impact of the proposed development on the setting of the statutory designated heritage asset or high value undesignated heritage asset will be required if any of the criteria in 1.5.2 above are met. The assessment of the setting of heritage assets follows the four-stage approach detailed in the *Setting of Historic Assets in Wales 2017 (The Historic Environment (Wales) Act 2016, Annex 6)*:

- Stage 1: Identify the historic assets that might be affected by a proposed change or development and their significance.

- Stage 2: Define and analyse the settings to understand how they contribute to the ways in which the historic assets are understood, appreciated and experienced.
 - Stage 3: Evaluate the potential impact of a proposed change or development on those settings.
 - Stage 4: Consider options to mitigate the potential impact of a proposed change or development on those settings.
- 1.5.4 The assessment of **significance** is intrinsically linked to the setting (see paragraphs 1.5.1 to 1.5.3 above) and value (see criteria in section 1.5 above) of a heritage asset/registered landscape, park and garden.
- 1.5.5 The significance of an historic asset embraces all of the cultural heritage values that people associate with it, or which prompt them to respond to it. These values tend to grow in strength and complexity over time, as understanding deepens and people's perceptions evolve (*Conservation Principles for the sustainable management of the historic environment in Wales 2011, p10*).
- 1.5.6 There are four values that need to be considered when assessing significance and these are set out in *Cadw's Conservation Principles for the sustainable management of the historic environment in Wales*:
- 1.5.7 **Evidential value:** relates to those elements of a heritage asset that can provide evidence about past human activity, including its physical remains or historic fabric. These may be visible and relatively easy to assess, or they may be buried below ground, under water or be hidden by later fabric. These remains provide the primary evidence for when and how a heritage asset was made or built, what it was used for and how it has changed over time. The unrecorded loss of historic fabric represents the destruction of the primary evidence. Additional evidential values can be gained from documentary sources, pictorial records and archaeological archives or museum collections. To assess the significance of this aspect of an asset, all this evidence needs to be gathered in a systematic way and any gaps in the evidence identified.
- 1.5.8 **Historical value:** a heritage asset might illustrate a particular aspect of past life or it might be associated with a notable family, person, event or movement. These illustrative or associative values of a heritage asset may be less tangible than its evidential value but will often connect past people, events and aspects of life with the present. Of course, the functions of a heritage asset are likely to change over time and so the full range of changing historical values might not become clear until all the evidential values have been gathered together. Historical values are not so easily diminished by change as evidential values and are harmed only to the extent that adaptation has obliterated them or concealed them.
- 1.5.9 **Aesthetic value:** relates to the way in which people draw sensory and intellectual stimulation from a heritage asset. This might include the form of a heritage asset, its external appearance and how it lies within its setting. It can be the result of conscious design or it might be a seemingly fortuitous outcome of the way in which a heritage asset has evolved and been used over time, or it may be a combination of both. The form of an asset normally changes over time. Sometimes earlier pictorial records and written descriptions will be more powerful in many people's minds than what survives today. Some important viewpoints may be lost or screened, or access to them may be temporarily denied.

- 1.5.10 To assess this aspect of an asset, again the evidence of the present and past form must be gathered systematically. This needs to be complemented by a thorough appreciation on site of the external appearance of an asset in its setting. Inevitably understanding the aesthetic value of a heritage asset will be more subjective than the study of its evidential and historical values. Much of it will involve trying to express the aesthetic qualities or the relative value of different parts of its form or design. It is important to seek the views of others with a knowledge and appreciation of the heritage asset on what they consider to be the significant aesthetic values.
- 1.5.11 **Communal value:** relates to the meanings that a heritage asset has for the people who relate to it, or for whom it figures in their collective experience or memory. It is closely linked to historical and aesthetic values but tends to have additional or specific aspects. Communal value might be commemorative or symbolic. For example, people might draw part of their identity or collective memory from a heritage asset, or have emotional links to it. Such values often change over time and they may be important for remembering both positive and uncomfortable events, attitudes or periods in Wales's history. Heritage assets can also have social value, acting as a source of social interaction, distinctiveness or coherence; economic value, providing a valuable source of income or employment; or they may have spiritual value, emanating from religious beliefs or modern perceptions of the spirit of a place.
- 1.5.12 The first stage of assessing significance is by understanding the value of the heritage asset by carefully considering its history, fabric and character and then comparing these values with other similarly designated or types of heritage asset locally, regionally or if necessary nationally. The outcome of this process is a Statement of Significance, which is partly a subjective exercise based on the assessor's experience and knowledge.

2 Baseline

2.1 Location, Topography and Geology

- 2.1.1 The proposed development site is centred on NGR SM (1)86652 (2)01391 located at East Pickard Bay in the parish of Angle, Pembrokeshire, which lies in the Pembrokeshire Coast National Park. The site is located within the Southeast corner of the disused RAF Angle Airport (NPRN 308209), which is now turned over to agricultural land. The proposed communication cable route extends 400m to mean low water at East Pickard Bay, crossing beneath the Wales Coast Path (Figure 1). Note the offshore section of the communication cable is assessed within the documents supporting the marine licence for the mWave Project.
- 2.1.2 The geology of the proposed development is the Milford Haven Group of interbedded Argillaceous and sandstone. These are sedimentary rocks formed approximately 408 to 427 million years ago in the Devonian and Silurian Periods. These sedimentary rocks are fluvial in origin; its beds and deposits formed from detrital material reflecting past riverine and estuarine environments (British Geological Survey 2019).

2.2 Conservation Areas

- 2.2.1 Whilst the proposed development does not sit within a conservation area, it lies in reasonably close proximity (1.8km) to the village of Angle, which was designated as a Conservation Area in 1997 as “a good example of Norman settlement of long village street flanked by burgage plots and outlying strip fields” (PCNP 2011a).

2.3 Registered Landscapes, Parks and Gardens

- 2.3.1 The proposed development is situated within the Milford Haven Waterway Historic Landscape which was added to the Register of Landscapes of Outstanding Historic Interest in Wales in 1998. There it is described as ‘The classic ria, drowned river valley and estuary in Wales, with an unsurpassed concentration of remains reflecting maritime conquest, settlement, commerce, fishing, defence and industry spanning the prehistoric to modern periods. The area includes: Iron Age promontory forts; Early Christian and Viking place names; Norman coastal castle-boroughs; medieval castles and later gentry residences; Milford and Pembroke dock planned settlements; recent and modern quays; jetties and landing places; coal mines; limestone quarries; military and naval fortifications; oil terminals; jetties, refineries and power stations’ (Murphy & Ludlow, 2002).
- 2.3.2 The Historic Landscape is subdivided into a series of distinctive Historic Landscape Character Areas (HLCAs). The proposed cable route runs through three of these HLCAs: West Angle to Freshwater West Coastal Strip (HCLA352) which features the Wales Coast Path, Rhoscrowther (HCLA341), and Angle Airfield (HLCA343). The Historic Landscape was originally bounded on its South side by the B4320 road that runs E/W down the middle of the Angle Peninsula and follows the line of an ancient Ridgeway. However, it was extended in 2002 to include these additional areas.

- 2.3.3 West Angle to Freshwater West Coastal Strip (HCLA352) consists of approximately a 7km strip of high sea cliff topped by a narrow band of moor, scrub and rough ground. The historic landscape of the coastal strip is characterised by its many and varied defensive sites dating from the 16th century through to the 20th century (LANDMAP 2019).
- 2.3.4 Rhoscrowther (HCLA341) stretches along the southern banks of the Milford Haven waterway from Hundleton in the east to the far west of the Peninsula. The landscape is predominantly agricultural fields and it features a significant number of heritage assets, with prehistoric sites being particularly well represented (LANDMAP 2019).
- 2.3.5 The Wales Coastal Path runs along the West Angle to Freshwater West Coastal Strip (HCLA352). The Pembrokeshire Coast National Park Local Development Plan states that “where there is a possibility that development may cause significant visual intrusion, impacts should be assessed as applicable from... the Coast Path.” (PCNP, 2010). Therefore this assessment should consider the effects of the development area on the setting and visibility of the Wales Coast Path.
- 2.3.6 Angle Airfield (HLCA343) consists of farmland reclaimed from the World War 2 Angle airfield. All the airfield buildings within this area have been demolished (some World War 2 buildings are utilised as farm buildings in the neighbouring area) and apart from small sections the concrete runways and roads removed. The land has been restored to pasture and is divided by banks and wire fences. (LANDMAP 2019)

2.4 General – Archaeological and Historical

Prehistoric – up to 43 AD

- 2.4.1 The earliest finds discovered within the 1km study area are from the Mesolithic period. A series of flints scatters including flint cores, scrapers and debitage flakes have been discovered on the cliff top above West Pickard Bay (DAT 3100, 3062, 3063, 7412) (Jacobi 2014). The high frequency of finds makes it likely that there was a flint-working site at West Pickard.
- 2.4.2 There is further evidence of Mesolithic activity at nearby South Studdock where there have been a significant number of lithics findspots, including a total of six possible flint-working sites (DAT 9844, 11397, 3971, 2972, 3067, 3068, 3104, 3105) demonstrating high levels of Mesolithic activity on the Angle Peninsula (Page 2004). These latter sites have not been included in the present assessment as they are outside the 1km study area.
- 2.4.3 A Neolithic polished rhyolite stone axe (PRN3098) was discovered within the study area, near the Old Windmill site in 1932. Whilst the original was returned to the owner, a cast was made by National Museums Wales (Dyfed Archaeological Trust HER).
- 2.4.4 The most significant Neolithic site in the wider area is the Scheduled Ancient Monument known as Devil’s Quoit or Newton Cromlech (SAM PE020, PRN3071). Situated 1.8km to the East of the study area, Devil’s Quoit is an impressive chambered tomb consisting of a wedge-shaped capstone supported by two large side stones, with a further presumed side stone lying on adjacent ground. The capstone measure 2.5m x 2m and is held 1.6m above the present ground surface by the side stones (CADW).

- 2.4.5 As well as its national importance as a well-preserved example of its type with significant archaeological potential, Devil's Quoit has immense group value, particularly within Pembrokeshire where there are a relatively high number of Chambered Tombs. When studied together these monuments can enhance our understanding of the wider Neolithic ritual landscape (Cook 2004). Whilst Devil's Quoit lies outside the 1km study area its high importance means that it will be included in this assessment.
- 2.4.6 A Bronze Age ring cairn was identified at West Pickard (DAT13058) as a cropmark in an aerial photograph, however the site is not visible on the ground. Further activity of the period is evidenced by a number of Bronze Age round barrows at nearby Kilpaison Burrows, which lies c.1km to the east of the study area. The most well-known of these is barrow DAT 3079, which was excavated in 1925. The hollowed-out barrow is 13m in diameter with a standing stone measuring 0.6m high and a smaller, prone stone at its centre. The excavation revealed one intact primary cremation in a circular hole between the two megaliths and five secondary cremations dated to the Bronze Age. In its upper deposits an extended inhumation was discovered that dated to the Early-medieval period (Fox 1926, Cook 2004. DAT HER). The barrow lies 400m south of Devil's Quoit, 500m to the East lies a cemetery of a further three Bronze Age barrows (DAT 47441). As the Kilpaison Burrows sites lie outside the 1km study area, and they are not Scheduled, they are not included in the current assessment.
- 2.4.7 The Iron Age promontory fort, known as West Pickard Camp (SAM PE167, DAT309) is situated within the 1km study area, in close proximity (200m to the west) of the proposed communication cable route. The Scheduled Ancient Monument (SAM) is perched on a promontory above West Pickard Bay, c. 40m above sea level. It is protected by the cliff edge to the west and south and has a curving bank and ditch to the north and east with an entrance at its mid-point. The bank is 1.3m high internally and 3m externally above the ditch. The internal area of the fought is c. 52m E-W and c. 60m N-S (DAT HER). The site is one of a number of similar local defensive sites of the period, the nearest being just c. 1.9km away, at Sheep Island (SAM PE411). The site is important for its group value, as well as its archaeological potential to enhance our understanding of later prehistoric defensive organisation and settlement (CADW).
- Roman & Early-medieval*
- 2.4.8 Whilst there is apparently no evidence for Roman presence on the Angle Peninsula, save for one sherd of pottery found on Sheep Island (DAT7413), significant Early-medieval activity is evidenced at West Angle Bay, c.2km north west of the study area. Geophysical survey and excavation revealed remains of a well-preserved cist cemetery within an oval compound. Enclosing this is a larger rectangular ditched enclosure, which is present on the Ordnance Survey 1st Edition map and provides the boundary of the scheduled area (SAM PE554, PRN409858) (Schlee 2008). Historic references to a 'St Anthony's Chapel' in this location and the field name of 'Church Field' on the 19th century tithe map have preserved awareness of the site, whilst the discovery of human remains from the eroding cliff edge gave rise to the archaeological investigations in 2005/6. Whilst the site is outside the 1km study area, as a Scheduled Ancient Monument it has been included within the assessment.

Medieval

- 2.4.9 There are no medieval sites within the 1km study area. However, the village of Angle, c.0.8km north of the study area, was established in the 11th century following the Norman Conquest. The place name reflects its topographical position in a nook or 'angle' on the south side of the Milford Haven Waterway. It is a well-preserved example of Norman settlement with a central street, burgage plots and outlying strip fields.
- 2.4.10 The surrounding Manor of Angle, which is probably reflected in the current parish boundary, was established, probably concurrently, as a mesne lordship of the Lordship of Pembroke (NRW website, LANDMAP).
- 2.4.11 By the late medieval period, the village featured a concentration of high-status medieval buildings reflecting its strategic importance and consequent wealth. These sites include the hall house known as Angle Castle (SAM PE069, LB17149), St Mary's Church tower (LB5921), the Sailor's Chapel (LB17147), the tower house known as Old Rectory (SAM PE067, LB5923) and a medieval dovecote (SAM PE067, LB5922). Due to their significance as nationally designated sites these will be included in this assessment.
- 2.4.12 There are also numerous medieval ecclesiastical sites on the Angle Peninsula including St Mary's Chapel (PRN7597), St. Ellen's Well (PRN3094) and Sheep Island medieval Monastery (PRN3066).

Post-medieval

- 2.4.13 Within the study area, the Grade II listed 'Old Windmill' (LB5926) lies c.0.5km to the NW of the proposed development area. A windmill is first recorded here in c.1600 (CADW) and appears on an Admiralty map in 1748 (Figure 3). The strip field adjacent to the North of the windmill site is described on the 1842 Tithe Map as 'Windmill Hill' (Figure 4). The 1st Edition Ordnance Survey map (Figure 5) described the site as 'Old Windmill' suggesting that it had probably fallen into disuse by this date. The building was substantially altered in c.1941 to accommodate a machine gun post. The remains today consist of a cylindrical base with walls constructed of local stone, surviving to a height of 5m, of probable c. 18th Century date (CADW).
- 2.4.14 The remains of Bangeston Manor lie just under a kilometre North of the proposed development area. The site includes the mansion (NPRN21605), Home Farm (DAT30885), associated outbuildings (NPRN22520) and fishpond (DAT15914). The site lies directly North of the development area and within the 1km study area. Probably of 17th/ 18th Century date the mansion house was possibly L-shaped in plan and constructed of red sandstone rubble with brick window heads (NMR). Bangeston was already in a ruinous state by 1810 when it was visited by Richard Fenton (Fenton 1811). The 1842 Tithe Map informs us that the development area sits within the "Banjeison Demesne Farm" lands (Appendix III).
- 2.4.15 Further Post-medieval sites within the study area include a 'Bathing Pool' (DAT524978) and Seamen's Graves (DAT 8973), both located at West Pickard Bay and marked on the First Edition Ordnance Survey map (Figure 5). A Post-Medieval trackway (DAT32766) and two small quarries (DAT32769, 32770) have also been noted near West Pickard Bay.

- 2.4.16 Around 1.8km to the west of the study area, East Blockhouse (SAM PE398, DAT 3061) is one of two 16th Century defensive structures built on either side of the Milford Haven Waterway in response to the threat of Spanish or French invasion. East and West “Blockhouses” are both marked as significant landmarks on the 1578 map of Pembrokeshire (Figure 2). The survival of these structures is rare; East Blockhouse is one of only a few in the UK and therefore has significant value (Crane 2012). The building was repurposed in the Second World War as a gun emplacement. Whilst it is outside the 1km study area, as a Scheduled Ancient Monument East Blockhouse will be included in this assessment.
- 2.4.17 The Angle Peninsula continued to be an important defensive post for the protection of the Milford Haven Waterway with the construction of the impressive Palmerston forts in the mid-19th Century at Chapel Bay (SAM PE333), Thorne Island (LB17169) and Fort Popton (SAM PE446) .

Modern

- 2.4.18 The proposed development site is situated on the SE corner of RAF Angle Airfield. In 1941 the RAF opened Angle Airfield (NPRN308209) in No 10 Group Fighter Command with No. 32 Squadron arriving the following day to protect Pembroke Dock and escort convoys near the Welsh Coast (DAT HER). It consisted of 3 runways, the main E/W runway was 1,600 yards, NW/SE runway was 1,200 yards and the NE/ SW runway was 1,000 yards. It also had a T2 hangar, four blister hangars and five ‘frying pan’ hard standings (ibid). The 1943 RAF Angle Site Plan (Figure 6) illustrates the layout of the site in detail and shows that within the SE corner of the site, where the proposed development site is located, there was a concentration of six dispersal pens.
- 2.4.19 Much of the airfield was cleared in 1990, and the land has since been turned over to agriculture. However, the layout of the airfield can still be seen in the field boundaries. One dispersal pen (DAT44602) has survived along with a pad for a blister hangar and fragments of the perimeter track and runway. The remaining dispersal pens are evident in aerial photographs up to the point of the 1990 clearance however they are not now evident on the ground.
- 2.4.20 In addition to the main airfield or ‘Aerodrome’, The Angle Airfield site includes a number of dispersed sites which can be seen on the 1943 plan (Figure 6). These include Site No 1 with barracks and ablutions (DAT 102548), Site No 2 (Communal site) with sick quarters, recreational facilities and provisions stores (DAT 102549), Site No 3 Quarters for officers and sergeants housed largely in Nissen huts (DAT 102550), Site No 4 Airmen's and officers barracks and Site No 5 Ex WAAF site, formerly Laing and Nissen huts (DAT 102551) (DAT HER).
- 2.4.21 Furthermore, there are a large number of defences surrounding the airfield, within the wider 1km study area. The Battle Headquarters (NPRN 270755) and the Old Windmill gun emplacement (LB5926, DAT101388) lie 0.5km to the NW of the development site. There are pillboxes to the east (NPRN270756) and to the north west of the airfield and a number of anti-aircraft batteries (DAT33438, DAT44607, DAT28651, DAT44603, DAT111268) and lookouts (DAT32765, DAT32767, DAT32768) along the cliff edge to the South.

2.4.22 Further afield, an anti-aircraft battery at Gravel Bay 0.6km east of the study area is designated as a Scheduled Ancient Monument due to its excellent preservation (SAM PE494).

2.5 Previous Studies

- 2.5.1 There have been no previous archaeological studies within the development area. However, RAF Angle Airfield and its associated sites have been included in national and regional studies of 20th Century Military sites.
- 2.5.2 The Defence of Britain Project was carried out by the Council for British Archaeology between 1995 and 2001 with an objective to record the 20th Century militarised landscape to inform heritage agencies regarding their future preservation.
- 2.5.3 Dyfed Archaeological Trust carried out a further CADW funded regional survey in 2011-12 centred specifically on military airfields and their associated sites according to contemporary Air Ministry Plans (Pyper & Page 2012).
- 2.5.4 More detailed archaeological surveys have been undertaken on the Battle Headquarters (E35708) and the Old Windmill Gun Emplacement (E54460) (Page & Scott 1998a & b) to the north of the development area.

2.6 Cartographic and Pictorial Evidence

- 2.6.1 The earliest map of Pembrokeshire is dated to 1578 (Christopher Saxton) and details the Angle Peninsula with the locations of 'Nangle', the "Blockhowse", "Shepe Isle" and "Ladye chap". (Figure 2)
- 2.6.2 The Admiralty map of 1748 by Lewis Morris marks both the Old Windmill and Bangeston Manor. The map highlights the prominent position of the Angle Peninsula at the head of the Milford Haven Waterway (Figure 3).
- 2.6.3 The Angle Parish tithe map of 1842 (Figure 4) shows that the development area sits within open fields within the 'Banjeison Demesne'. The field name was Little Ranghill and it was at this time laid to pasture. The land was rented by John Thomas and was owned, along with the rest of the land at Angle at this time, by Squire John Mirehouse. The medieval open field system around Angle village are also visible on the tithe map. The open-field system was the prevalent agricultural system in Britain for much of the medieval period. The system was based on a manor, estate or village holding several large open fields divided into furlongs, narrows strips of land, each worked by tenanted farmers
- 2.6.4 The 1st Edition Ordnance Survey Map (1888-1913) (Figure 5) shows no change to the field layout in the location of the development area. Also within the 1km study area, it details the location of the 'Camp' at West Pickard and marks the 'Seaman's Graves' above West Pickard Bay. A Coastguard Station is marked at Bangeston Manor.
- 2.6.5 The Air Ministry 1943 Site Plan of RAF Angle (Figure 6) is incredibly detailed with regard to the layout of the military site and the usage of individual buildings. It illustrates that the development site is located in the SE corner of the airfield perimeter road in close proximity to the location of one of the former dispersal pens and its associated track. The plan also details the Pillbox and a number of other features directly to the East of the development area.

- 2.6.6 The latest edition of the Ordnance Survey map shows Angle Airfield with its runways, perimeter track and dispersal pens shown as a dotted outline. The map shows that the line of the hedgerow adjacent to the proposed control centre has shifted to the west slightly from its pre-Airfield position.

2.7 Aerial Photographic Evidence

- 2.7.1 Aerial photographic (AP) coverage clearly shows the development site in relation to the RAF Angle Airfield. As described above the development area is in close proximity to the dispersal pens located in the SE of the Airfield (Plates 1 and 2).
- 2.7.2 The 1950 AP shows the Airfield and its ancillary buildings in good condition. By the 1968 AP it appears that the runways are still in fairly good condition but that the land has already been turned back to agriculture, with different land use visible in different sections of the airfield. The same is true in the subsequent 1973, 1978 and 1983 APs in which plough marks are increasingly visible across the runways and perimeter track.
- 2.7.3 Interestingly the dispersal pens appear to be still intact in the 1983 AP prior to their removal in the 1990 clearance of the site.

2.8 Site Visit

- 2.8.1 A walkover survey was conducted on 20/06/19. The development area was photographed from key views (Plates 3-6). Heritage assets within the immediate area were photographed and a note on their condition made. No visual interruption or effects were noted to the viewsheds from/to West Pickard Camp (SAM PE167, DAT309).
- 2.8.2 The survey was undertaken in good clear weather and strong sunlight.
- 2.8.3 No new heritage assets were identified.

3 Identified Heritage Assets

3.1 Sites of Archaeological and Historical Interest

3.1.1 A total of 50 heritage assets have been identified. One heritage asset has been identified within the development area; RAF Angle Airfield (NPRN 308209) included with a further 39 heritage assets within a 1km (radius) study area; and for the purposes of the assessment of setting and significance of heritage assets with a value of A or higher, a total of 11 have been identified within a 5km (radius) study area.

3.1.2 The development area is located within the Milford Haven Waterway Historic Landscape, specifically the West Angle to Freshwater West Coastal Strip (HCLA352) which features the Wales Coast Path and Rhoscrowther (HCLA341). In addition, the Angle Village Conservation Area sits within the 5km (radius) study area.

Table 3. Identified heritage assets

| ID | Name | NGR | Period | Type | Designation | Designation ID | Value |
|--|---------------------------------------|--------------|---------------|---------------------|-------------|----------------|-------|
| NPRN22520 | Bangeston Outbuilding | SM87400164 | Post Medieval | Stable | None | None | D |
| NPRN21605, DAT3070 | Bangeston Mansion, Site Of | SM87460167 | Post Medieval | House | None | None | D |
| NPRN33259, NPRN270510, DAT4386, LB5926 | Angle Windmill | SM8668201944 | Post Medieval | Windmill | LB Grade II | LB5926 | B |
| NPRN270759 | Gun Emplacement, Angle | SM87160127 | Post Medieval | Gun Emplacement | None | None | C |
| NPRN270756, DAT101389 | Pillbox, Angle | SM86870132 | Post Medieval | Pillbox | None | None | C |
| NPRN270755, DAT44599, DAT101387 | Battle Headquarters, Angle | SM86710193 | Post Medieval | Battle Headquarters | None | None | C |
| NPRN270746 | Weapons Pit, West Pickard Camp, Angle | SM86280103 | Post Medieval | Weapons Pit | None | None | C |
| NPRN270745 | Weapons Pit, West Pickard Camp, Angle | SM86270104 | Post Medieval | Weapons Pit | None | None | C |
| NPRN270754, DAT44607 | Gun Emplacement, Angle | SM86710109 | Post Medieval | Gun Emplacement | None | None | C |
| NPRN92623, DAT3099, SAM PE167 | West Pickard Camp | SM86240102 | Iron Age | Hillfort | SAM | PE167 | A |
| NPRN308209, DAT33439, HLCA343 | Angle Airfield, Angle | SM85810170 | Modern | Airfield | None | None | C |

| | | | | | | | |
|--------------------------|--|--------------|------------------|---------------------|------|------|---|
| NPRN421549, DAT101390 | Aircraft Dispersal Pen, Angle Airfield | SM86390134 | Modern | Blast Pen | None | None | C |
| NPRN524978 | Bathing Pool, West Pickard Bay | SM8593701128 | Post Medieval | Swimming Pool | None | None | D |
| DAT32766 | Post Medieval Trackway, Angle | SM86370128 | Post Medieval | Trackway | None | None | D |
| DAT32782 | Post Medieval Pond, Angle | SM8631701311 | Post Medieval | Pond | None | None | D |
| DAT33438, E79852 | Modern Battery, Angle | SM86330105 | Modern | Battery | None | None | C |
| DAT32765 | Modern Lookout, West Pickard Camp, Angle | SM86250103 | Modern | Lookout | None | None | C |
| DAT8973 | Post Medieval Inhumation, West Pickard Bay | SM86160117 | Post Medieval | Inhumation | None | None | C |
| DAT32767 | Modern Lookout, Angle | SM86160122 | Modern | Lookout | None | None | C |
| DAT32768 | Modern Lookout, Angle | SM86140125 | Modern | Lookout | None | None | C |
| DAT32769 | Post Medieval Quarry, Angle | SM86100122 | Post Medieval | Quarry | None | None | D |
| DAT32770 | Post Medieval Quarry, Angle | SM86010119 | Post Medieval | Quarry | None | None | D |
| DAT3100 | Prehistoric Findspot, Pickard, Angle | SM8601 | Prehistoric | Findspot | None | None | D |
| DAT3098 | Neolithic Findspot, Old Windmill, Angle | SM8601 | Neolithic | Findspot | None | None | D |
| DAT28651 | Modern Searchlight Battery, Black Cove, Angle | SM86980092 | Modern | Battery | None | None | C |
| DAT44603, DAT110426 | Modern Anti Aircraft Battery, Angle | SM87210126 | Modern | Battery | None | None | C |
| DAT102482 | Modern Building Complex, Raf Angle | SM86760172 | Modern | Building Complex | None | None | C |

| | | | | | | | |
|---|---|--------------|-----------------------|------------------|-------------------|----------------|---|
| DAT15914 | Post Medieval Fishpond, Bangeston | SM872017 | Post Medieval | Fishpond | None | None | C |
| DAT30885 | Home Farm For Bangeston Mansion, Bangeston | SM87310158 | Post Medieval | Farm | None | None | C |
| DAT101388 | Modern Gun Emplacement, RAF Angle [Within Old Windmill) | SM8668601945 | Modern | Gun Emplacement | None | None | C |
| DAT111268, DAT102552 | Modern Searchlight Battery, Angle | SM86450206 | Modern | Battery | None | None | C |
| DAT44617, DAT102546 | Modern Air Raid Shelter | SM86430206 | Modern | Air Raid Shelter | None | None | C |
| DAT102549 | Modern Military Camp, Raf Angle Site No 2 | SM87650151 | Modern | Military Camp | None | None | C |
| DAT7412 | West Pickard Mesolithic/ Neolithic Findspot | SM8402 | Mesolithic/ Neolithic | Findspot | None | None | D |
| DAT3062 | West Pickard Mesolithic/ Neolithic Findspot | SM8402 | Mesolithic/ Neolithic | Findspot | None | None | D |
| DAT3063 | West Pickard Mesolithic/ Neolithic Findspot | SM8402 | Mesolithic/ Neolithic | Findspot | None | None | D |
| DAT13058 | Cropmark Of Ring Cairn | SM855014 | Bronze Age | Ring Cairn | None | None | C |
| NPRN94972, DAT3090, SAM PE069, LB17149 | Angle Castle, Angle | SM86540286 | Medieval | Hall | SAM, LB Grade II* | PE069, LB17149 | A |
| NPRN103062, DAT 3088, SAM PE068, LB5923 | Old Rectory' Tower House, Angle | SM86610300 | Medieval | Tower House | SAM, LB Grade I | PE068, LB5923 | A |
| NPRN308966, DAT23825, LB17147 | The Sailors' Chapel, Angle | SM8663902926 | Medieval | Chapel | LB Grade I | LB17147 | A |
| NPRN22517, DAT3089, SAM PE067, LB5922 | Dovecote, Angle | SM86600307 | Medieval | Dovecote | SAM, LB Grade II | PE 067, LB5922 | A |

| | | | | | | | |
|--|---|------------|-------------------|-----------------------|------|-------|---|
| NPRN270761, DAT 14355, SAM PE494 | Anti Aircraft Battery, Gravel Bay | SM88260077 | Modern | Battery | SAM | PE494 | A |
| NPRN305358, DAT 3071, SAM PE020 | Devil's Quoit, Newton Cromlech | SM88650084 | Neolithic | Chambered Tomb | SAM | PE020 | A |
| DAT3065, SAM PE411 | Castle's Bay Promontory Fort | SM84550182 | Iron Age | Hillfort | SAM | PE411 | A |
| NPRN409858, DAT35095, SAM PE554 | Early Medieval Cemetery, West Angle Bay | SM85150309 | Early Medieval | Cemetery | SAM | PE554 | A |
| NPRN103035, DAT3061, SAM PE398 | East Blockhouse, Angle | SM84110278 | Post Medieval | Blockhouse | SAM | PE398 | A |
| NPRN92682, DAT7655, SAM PE333 | Chapel Bay Fort | SM858036 | Post Medieval | Fort | SAM | PE333 | A |
| NPRN300447, DAT7734, SAM PE446 | Fort Popton | SM893038 | Post Medieval | Fort | SAM | PE446 | A |
| DAT43918, HLCA352 | East Angle To Freshwater West | SM845022 | N/A | Historic Landscape | None | None | A |
| DAT43920, HLCA341 | Rhoscrowther | SM901014 | N/A | Historic Landscape | None | None | A |

4 Assessment of Heritage Assets

4.1 Potential Direct Impacts of the Development on Heritage Assets

- 4.1.1 The potential impact of the proposed development on heritage assets has been assessed using the design information provided by Bombora WavePower Ltd. The potential direct impact of the development on heritage assets is confined to two sites, RAF Angle Airfield (NPRN 308209) and the West Angle to Freshwater West Coastal Strip (HLCA352). The potential direct effect on RAF Angle Airfield (NPRN 308209) has been assessed as having a Low Magnitude of Effect, with the significance of direct effect assessed as Slight Significance. The plans for the installation of the temporary onshore facilities include a topsoil strip of an area measuring 12m x 18m in the area of former RAF dispersal pens. However, the site visit confirmed that the dispersal pens were completely removed during the 1990 clearance operation.
- 4.1.2 The potential direct effect on the West Angle to Freshwater West Coastal Strip Historic Landscape Area (HLCA352) have been assessed as having a Low Magnitude of Effect, with the significance of direct effect assessed as Slight Significance. The plans for installing the cable route are largely not intrusive, however where it crosses beneath the Wales Coastal Path a small amount of excavation is required. It is considered very unlikely that this excavation will uncover any archaeological remains.
- 4.1.3 The remaining heritage assets have been assessed as having no direct effect from the proposed development.

4.2 Potential Indirect Impacts of the Development on Heritage Assets

- 4.2.1 For the purposes of the assessment of indirect impacts from the proposed development on heritage assets only sites of International and National importance have been assessed. Three heritage assets have been assessed as having an indirect effect by the proposed development: West Angle to Freshwater West Coastal Strip Historic Landscape Area (HLCA352), Rhoscrowther Historic Landscape Area (HLCA341) and RAF Angle Airfield Historic Landscape Area (HLCA343, NPRN 308209).
- 4.2.2 West Angle to Freshwater West Coastal Strip (HLCA352) is a historic landscape character area that runs along the cliff top of the South side of Angle Peninsula and has the Wales Coast Path running through it. The proposed cable route will be visible from this historic landscape area and have been assessed as having a Very Slight indirect effect.
- 4.2.3 Rhoscrowther (HLCA341) is a historic landscape character area that borders the Coastal Strip. The proposed cable route runs along a field boundary through this area. Whilst there is potential for an indirect effect, the site visit confirmed that the cable will be completely screened by the existing very thick vegetation and that therefore the indirect effect is reduced to 'None'.
- 4.2.4 The temporary onshore facilities sit within the SE corner of the RAF Angle Airfield Historic Landscape Area (HLCA343, NPRN 308209). In addition to the direct effect that will be imposed by the proposed ground works, the potential for a Very Slight indirect effect is applicable to the remainder of the site.
- 4.2.5

Table 4. Assessment of direct and indirect effects on heritage assets

| ID | Name | NGR | Period | Type | Designation | Designation ID | Value | Rarity | Documentation/Association | Group Value | Survival/Condition | Magnitude of Direct Effect | Significance of Direct Effect | Magnitude of Indirect Effect | Setting Effect Yes/No |
|--|--|--------------|---------------|---------------------|-------------|----------------|-------|--------|---------------------------|-------------|----------------------|----------------------------|-------------------------------|------------------------------|-----------------------|
| NPRN22520 | Bangeston Outbuilding | SM87400164 | Post Medieval | Stable | None | None | D | Low | Low | Moderate | Near destroyed/Poor | None | None | None | No |
| NPRN21605, DAT3070 | Bangeston Mansion, Site Of | SM87460167 | Post Medieval | House | None | None | D | Medium | Low | Moderate | Near destroyed/Poor | None | None | None | No |
| NPRN33259, NPRN270510, DAT4386, LB5926 | Angle Windmill | SM8668201944 | Post Medieval | Windmill | LB Grade II | LB5926 | C | Medium | Moderate | Moderate | Damaged/Moderate | None | None | None | No |
| NPRN270759 | Gun Emplacement, Angle | SM87160127 | Post Medieval | Gun Emplacement | None | None | C | Low | Moderate | Moderate | Not known | None | None | None | No |
| NPRN270756, DAT101389 | Pillbox, Angle | SM86870132 | Post Medieval | Pillbox | None | None | C | Low | Moderate | Moderate | Near intact/Moderate | None | None | None | No |
| NPRN270755, DAT44599, DAT101387 | Battle Headquarters, Angle | SM86710193 | Post Medieval | Battle Headquarters | None | None | C | Medium | Moderate | Moderate | Intact | None | None | None | No |
| NPRN270746 | Weapons Pit, West Pickard Camp, Angle | SM86280103 | Post Medieval | Weapons Pit | None | None | C | Low | Moderate | Moderate | Not known | None | None | None | No |
| NPRN270745 | Weapons Pit, West Pickard Camp, Angle | SM86270104 | Post Medieval | Weapons Pit | None | None | C | Low | Moderate | Moderate | Not known | None | None | None | No |
| NPRN270754, DAT44607 | Gun Emplacement, Angle | SM86710109 | Post Medieval | Gun Emplacement | None | None | C | Low | Moderate | Moderate | Damaged | None | None | None | No |
| NPRN92623, DAT3099, SAM PE167 | West Pickard Camp | SM86240102 | Iron Age | Hillfort | SAM | PE167 | A | High | None | High | Near intact/Moderate | None | None | None | No |
| NPRN308209, DAT33439, HLCA343 | Angle Airfield, Angle | SM85810170 | Modern | Airfield | None | None | C | Medium | Moderate | Moderate | Near destroyed/Poor | Low | Slight significance | Slight | Yes |
| NPRN421549, DAT101390 | Aircraft Dispersal Pen, Angle Airfield | SM86390134 | Modern | Blast Pen | None | None | C | Low | Moderate | Moderate | Intact | None | None | None | No |
| NPRN524978 | Bathing Pool, West Pickard Bay | SM8593701128 | Post Medieval | Swimming Pool | None | None | D | Low | Low | Low | Not known | None | None | None | No |

| ID | Name | NGR | Period | Type | Designation | Designation ID | Value | Rarity | Documentation/Association | Group Value | Survival/Condition | Magnitude of Direct Effect | Significance of Direct Effect | Magnitude of Indirect Effect | Setting Effect Yes/No |
|------------------------|---|--------------|---------------|------------------|-------------|----------------|-------|--------|---------------------------|-------------|-------------------------|----------------------------|-------------------------------|------------------------------|-----------------------|
| DAT32766 | Post Medieval Trackway, Angle | SM86370128 | Post Medieval | Trackway | None | None | D | Low | Low | Low | Not known | None | None | None | No |
| DAT32782 | Post Medieval Pond, Angle | SM8631701311 | Post Medieval | Pond | None | None | D | Low | Low | Moderate | Near destroyed/ Poor | None | None | None | No |
| DAT33438, | Modern Battery, Angle | SM86330105 | Modern | Battery | None | None | C | Low | Moderate | Moderate | Destroyed | None | None | None | No |
| DAT32765 | Modern Lookout, West Pickard Camp, Angle | SM86250103 | Modern | Lookout | None | None | C | Low | Moderate | Moderate | Near destroyed/ Poor | None | None | None | No |
| DAT8973 | Post Medieval Inhumation, West Pickard Bay | SM86160117 | Post Medieval | Inhumation | None | None | C | Low | Low | Low | Not known | None | None | None | No |
| DAT32767 | Modern Lookout, Angle | SM86160122 | Modern | Lookout | None | None | C | Low | Moderate | Moderate | Near destroyed/ Poor | None | None | None | No |
| DAT32768 | Modern Lookout, Angle | SM86140125 | Modern | Lookout | None | None | C | Low | Moderate | Moderate | Near destroyed/ Poor | None | None | None | No |
| DAT32769 | Post Medieval Quarry, Angle | SM86100122 | Post Medieval | Quarry | None | None | D | Low | Low | Low | Not known | None | None | None | No |
| DAT32770 | Post Medieval Quarry, Angle | SM86010119 | Post Medieval | Quarry | None | None | D | Low | Low | Low | Not known | None | None | None | No |
| DAT3100 | Prehistoric Findspot, Pickard, Angle | SM8601 | Prehistoric | Findspot | None | None | D | Medium | None | Low | Moved | None | None | None | No |
| DAT3098 | Neolithic Findspot, Old Windmill, Angle | SM8601 | Neolithic | Findspot | None | None | D | Medium | None | Low | Moved | None | None | None | No |
| DAT28651 | Modern Searchlight Battery, Black Cove, Angle | SM86980092 | Modern | Battery | None | None | C | Low | Moderate | Moderate | Destroyed | None | None | None | No |
| DAT44603, DAT110426 | Modern Anti Aircraft Battery, Angle | SM87210126 | Modern | Battery | None | None | C | Low | Moderate | Moderate | Near destroyed/ poor | None | None | None | No |
| DAT102482 | Modern Building Complex, Raf Angle | SM86760172 | Modern | Building Complex | None | None | C | Medium | Moderate | Moderate | Near Destroyed/ poor | None | None | None | No |
| DAT15914 | Post Medieval Fishpond, Bangeston | SM872017 | Post Medieval | Fishpond | None | None | D | Low | Low | Low | Not known | None | None | None | No |

| ID | Name | NGR | Period | Type | Designation | Designation ID | Value | Rarity | Documentation/Association | Group Value | Survival/Condition | Magnitude of Direct Effect | Significance of Direct Effect | Magnitude of Indirect Effect | Setting Effect Yes/No |
|-------------------------------------|---|--------------|-----------------------|------------------|-------------------|----------------|-------|--------|---------------------------|-------------|---------------------|----------------------------|-------------------------------|------------------------------|-----------------------|
| DAT30885 | Home Farm For Bangeston Mansion, Bangeston | SM87310158 | Post Medieval | Farm | None | None | D | Low | Low | Low | Not known | None | None | None | No |
| DAT101388 | Modern Gun Emplacement, RAF Angle [Within Old Windmill] | SM8668601945 | Modern | Gun Emplacement | None | None | C | Low | Moderate | Moderate | Damaged/Moderate | None | None | None | No |
| DAT111268, DAT102552 | Modern Searchlight Battery, Angle | SM86450206 | Modern | Battery | None | None | C | Low | Moderate | Moderate | Near destroyed/Poor | None | None | None | No |
| DAT44617, DAT102546 | Modern Air Raid Shelter | SM86430206 | Modern | Air Raid Shelter | None | None | C | Low | Moderate | Moderate | Near intact/ fair | None | None | None | No |
| DAT102549 | Modern Military Camp, Raf Angle Site No 2 | SM87650151 | Modern | Military Camp | None | None | C | Medium | Moderate | Moderate | Damaged/Fair | None | None | None | No |
| DAT7412 | West Pickard Mesolithic/ Neolithic Findspot | SM8402 | Mesolithic/ Neolithic | Findspot | None | None | D | Medium | None | Moderate | Moved | None | None | None | No |
| DAT3062 | West Pickard Mesolithic/ Neolithic Findspot | SM8402 | Mesolithic/ Neolithic | Findspot | None | None | D | Medium | None | Moderate | Moved | None | None | None | No |
| DAT3063 | West Pickard Mesolithic/ Neolithic Findspot | SM8402 | Mesolithic/ Neolithic | Findspot | None | None | D | Medium | None | Moderate | Moved | None | None | None | No |
| DAT13058 | Cropmark Of Ring Cairn | SM855014 | Bronze Age | Ring Cairn | None | None | B | Low | Low | Moderate | Poor | None | None | None | No |
| NPRN94972, DAT 3090, PE069, LB17149 | Angle Castle, Angle | SM86540286 | Medieval | Hall | SAM, LB Grade II* | PE069, LB17149 | A | High | Moderate | High | Near destroyed/Poor | None | None | None | No |
| NPRN103062, DAT 3088, PE068, LB5923 | Old Rectory' Tower House, Angle | SM86610300 | Medieval | Tower House | SAM, LB Grade I | PE068, LB5923 | A | High | Moderate | High | Intact/ Good | None | None | None | No |
| NPRN308966, DAT 23825, LB17147 | The Sailors' Chapel, Angle | SM8663902926 | Medieval | Chapel | LB Grade I | LB17147 | A | High | Moderate | Moderate | Intact/ Very Good | None | None | None | No |

| ID | Name | NGR | Period | Type | Designation | Designation ID | Value | Rarity | Documentation/Association | Group Value | Survival/Condition | Magnitude of Direct Effect | Significance of Direct Effect | Magnitude of Indirect Effect | Setting Effect Yes/No |
|--|---|------------|----------------|-----------------------------------|-------------------------------|----------------|-------|--------|---------------------------|-------------|----------------------|----------------------------|-------------------------------|------------------------------|-----------------------|
| NPRN22517, DAT 3089, SAM PE067, LB5922 | Dovecote, Angle | SM86600307 | Medieval | Dovecote | SAM, LB Grade II | PE 067, LB5922 | A | High | Moderate | High | Intact/ Very Good | None | None | None | No |
| NPRN270761, DAT 14355, SAM PE494 | Anti Aircraft Battery, Gravel Bay | SM88260077 | Modern | Battery | SAM | PE494 | A | Low | Moderate | Moderate | Near intact/ Good | None | None | None | No |
| NPRN, 305358, DAT3071, SAM PE020 | Devil's Quoit, Newton Cromlech | SM88650084 | Neolithic | Chambered Tomb | SAM | PE020 | A | High | Moderate | High | Intact/ Very Good | None | None | None | No |
| DAT3065, SAM PE411 | Castle's Bay Promontory Fort | SM84550182 | Iron Age | Hillfort | SAM | PE411 | A | High | Moderate | High | Damaged/ Fair | None | None | None | No |
| NPRN409858, DAT35095, SAM PE554 | Early Medieval Cemetery, West Angle Bay | SM85150309 | Early Medieval | Cemetery | SAM | PE554 | A | High | Moderate | High | Damaged/ Fair | None | None | None | No |
| NPRN103035, DAT3061, SAM PE398 | East Blockhouse, Angle | SM84110278 | Post Medieval | Blockhouse | SAM | PE398 | A | Rare | Moderate | High | Near Destroyed/ Poor | None | None | None | No |
| NPRN92682, DAT7655, SAM PE333 | Chapel Bay Fort | SM858036 | Post Medieval | Fort | SAM | PE333 | A | High | Moderate | High | Restored/ Very Good | None | None | None | No |
| NPRN300447, DAT7734, SAM PE446 | Fort Popton | SM893038 | Post Medieval | Fort | SAM | PE446 | A | High | Moderate | High | Intact/ Good | None | None | None | No |
| HLCA352 | West Angle To Freshwater West Coastal Strip | SM845022 | N/A | Historic Landscape Character Area | Registered Historic Landscape | HLCA352 | A | Medium | High | High | Intact/ Very Good | Low | Slight Significance | Very Slight | Yes |
| HLCA341 | Rhoscrowther | SM901014 | N/A | Historic Landscape Character Area | Registered Historic Landscape | HLCA352 | A | Medium | High | High | Intact/ Very Good | Low | None | None | No |

4.2.6 The last column "Setting Effects Y/N" identifies those heritage assets that may have indirect visual impacts to the setting of the monument (Stage 1 as set out in *Setting of Historic Assets in Wales 2017 (The Historic Environment (Wales) Act 2016, Annex 6)*).

4.3 Setting and Significance – Stage 1

- 4.3.1 Potential indirect impacts of the development on heritage assets are confined to the impacts upon the setting of International and National value heritage assets (A* and A class), these include Scheduled Ancient Monuments, Registered Landscapes, Parks and Gardens and sometimes Grade I and I* Listed Buildings. Grade II and II* buildings are considered if their setting includes or is included with a Registered Landscape or Park and Garden.
- 4.3.2 For the purposes of the assessment of setting and significance of heritage assets with a value of A or higher, only one has been identified within a 1km (radius) study area (SAM PE167 West Pickard Camp). A further 11 Value A sites were considered for assessment within a 5km study area, but were discarded as too distant, had no setting or direct line of sight to the proposed development area. Only one Value B site (LB5926, Angle Windmill) has been included because its setting includes or is included within a Registered Landscape.
- 4.3.3 For the purposes of the assessment of setting and significance of Registered Landscapes, Parks and Gardens, the development site is wholly within the Milford Haven Waterway Landscape of Outstanding Historic Interest which is therefore considered to have a possible effect; in particular HLC352 West Angle to Freshwater West, HLC341 Rhoscrowther and HLC343 Angle Airfield.

4.4 Defining and Evaluating the Setting and Significance of Heritage Assets – Stage 2 and 3

- 4.4.1 Section 2.3, 2.4 and 2.5 above set out the context and extent of the identified heritage assets, which contribute to the Stage 1 and 2 assessment of setting and significance. Section 3 sets out the value and Section 4.1 and 4.2 the direct and indirect effects, which also contribute to the overall understanding of heritage assets and their setting (Stage 2 assessment of setting and significance).
- 4.4.2 The assessment of the Cumulative Visual Effect is the culmination of the assessment of value, degree of change and corresponding effects. This is partly a subjective exercise based on the assessor’s experience and knowledge.

Table 5. Stage 3 Assessing value and significance of indirect visual effects on the setting of heritage assets

| ID | Name | Value | Evidential Value | Historical Value | Aesthetic Value | Communal Value | Type of visual effect/change | Magnitude of Effect | Significance of Effect | Cumulative Visual Effect |
|---|---|-------|------------------|------------------|-----------------|----------------|------------------------------|---------------------|------------------------|--------------------------|
| LB5926, NPRN33259, NPRN270510, DAT4386 | Angle Windmill | B | Moderate | Moderate | Moderate | Moderate | None | None | None | None |
| SAM PE167, NPRN92623, DAT3099 | WEST PICKARD CAMP | A | High | High | High | High | None | None | None | None |
| HLCA352 | West Angle to Freshwater West Coastal Strip | A | High | High | High | High | Very Slight interruption | Low | Significant | Very Slight |
| NPRN308209, DAT33439, HLCA343 | Angle Airfield | C | Low | Moderate | Low | Low | Very slight interruption | Low | None | None |
| HLCA341 | Rhoscrowther | A | High | High | High | High | None | None | None | None |

4.5 Summary of Significance and Setting

- 4.5.1 The proposed development area is located within the Milford Haven Landscape of Outstanding Historic Interest. In particular the control centre sits within Angle Airfield (HLCA343, NPRN 308209) and the cable route crosses both Rhoscrowther (HLCA341) and West Angle to Freshwater West Coastal Strip (HLCA352).
- 4.5.2 East Angle to Freshwater West (HLCA352) has been assessed as having Very Slight visual effect. The Wales Coast Path runs along this Historic Landscape Character Area and it is important that visibility and setting of this well used public route in particular is assessed as per the PCNP Regional Development Plan. The proposed cable route will be laid on the surface from East Pickard Bay up the side of the cliff before running beneath the Wales Coast Path and then on the surface beside an existing stone wall and hedgerow boundaries where it will be hidden by vegetation until it reaches the temporary onshore facilities. The cable will be visible from the Wales Coast Path where the path passes East Pickard Bay. The setting of HLCA352 will therefore have an effect and has been assessed as Very Slightly affected by the development.
- 4.5.3 The site visit confirmed that there will be no setting effect to Rhoscrowther (HLCA341) due to the very thick vegetation that will conceal the cable route. The site visit also confirmed that there will be no setting effect to Angle Airfield (HLCA343) due to the very high field boundaries and vegetation that will conceal the onshore facilities from the Angle Airfield site.

5 Mitigation Recommendations

- 5.1.1 The assessment has identified the potential direct and indirect effects of the proposed development together with an assessment of the setting and significance of high value heritage assets. The potential direct impact of the development on heritage assets is confined to two sites, RAF Angle Airfield (NPRN 308209, HLCA343) and the West Angle to Freshwater West Coastal Strip (HLCA352).
- 5.1.2 The Magnitude of Direct Effect on RAF Angle Airfield has been assessed as Low with the Significance of Direct Effect assessed as Slight Significance. The groundworks for the installation of the temporary control centre entail a topsoil strip of an area measuring 12m x 18m. The site visit confirmed that the dispersal pens were completely removed during the 1990 clearance operation described above. The extent of the clearance is unclear but must have been extensive to clear the area of the dispersal pens back to agricultural use. The potential for buried archaeology in this area must now be considered Low to None and it is unlikely that any archaeological remains will be disturbed during the proposed ground works. No further archaeological mitigation is required.
- 5.1.3 The West Angle to Freshwater West Coastal Strip has also been assessed as having a Low Magnitude of Direct Effect with the Significance of Direct Effect assessed as Slight Significance. The plans for installing the cable route are largely unobtrusive, however, where it crosses beneath the Wales Coastal Path a small amount of excavation may be required. The area of the coastal path is already disturbed, and it is considered the potential for archaeological remains to survive here is Low to None. No further archaeological mitigation is required.
- 5.1.4 Only one heritage asset has been assessed as having an indirect effect by the proposed development: West Angle to Freshwater West Coastal Strip (HLCA352), which has been assessed cumulatively as having Very Slight Indirect Visual Effect. The assessment being largely concerned with the visibility of the proposed cable route from the Wales Coast Path. The setting will also be Very Slightly affected at East Pickard Bay as visibility of the surrounding historic landscape is a key contributor to its significance. However, the effect will be minimised in both areas by the use of existing hedgerows, stone wall and vegetation to screen the proposed cable route reducing the potential indirect impact.

6 Assessment of Residual Impacts

- 6.1.1 No mitigation is deemed necessary for the potential direct effects on Angle Airfield (NPRN30829) or West Angle to Freshwater Coastal Strip (HLCA352) as it is considered unlikely that archaeological remains will be disturbed during the proposed ground works.
- 6.1.2 The proposed development will have a Very Slight indirect and setting effect on West Angle to Freshwater West Coastal Strip (HLCA352). However, the temporary nature of the project means that these indirect and setting effects will be reversed once the development has been removed at the end of the lifespan of the project.

7 Bibliography

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- LANDMAP: Natural Resources Wales accessed 04/06/2019 <https://landmap-maps.naturalresources.wales/>

8 Appendices

8.1 Appendix I Figures

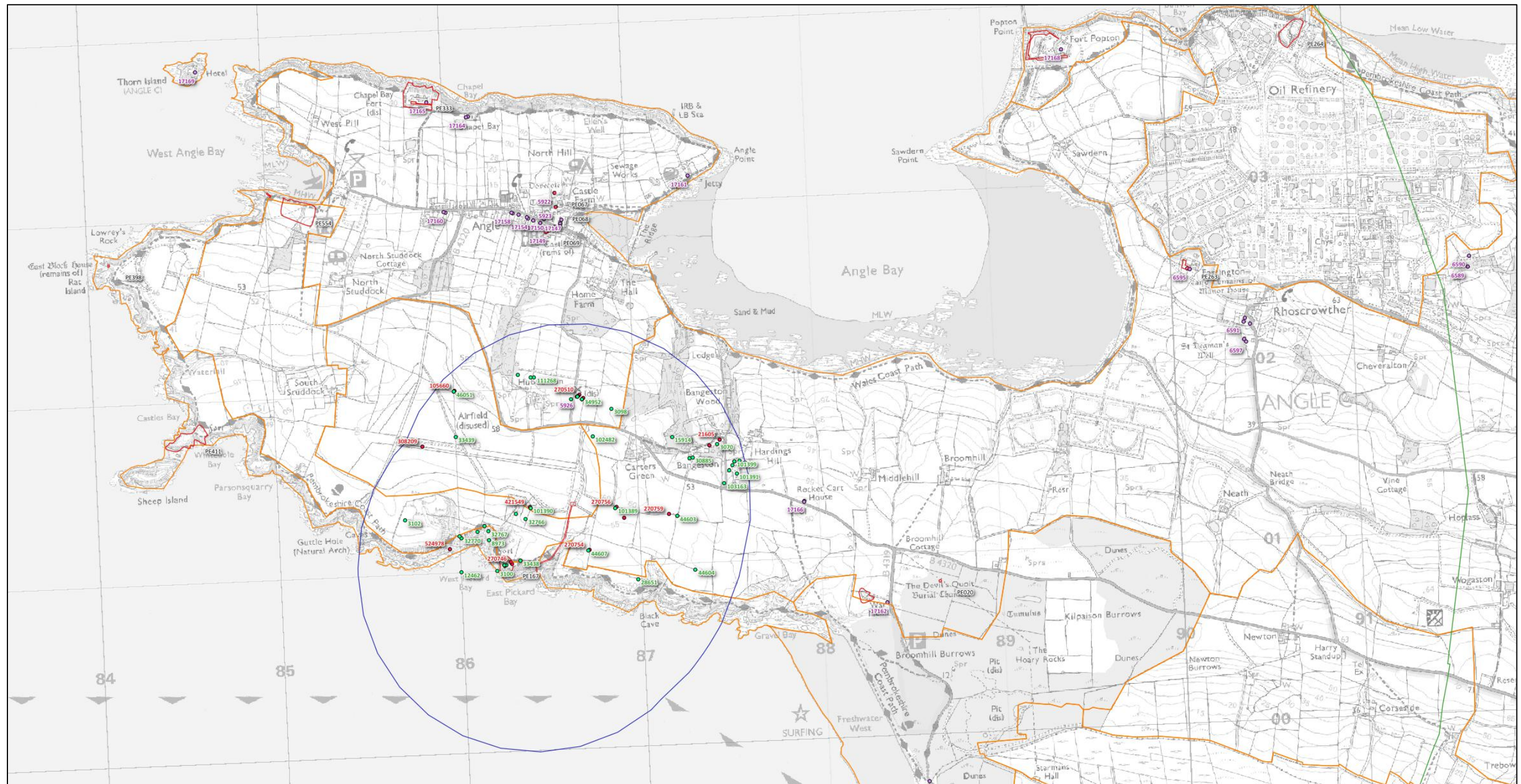


Figure 1. HER Assets (green spot), NMR Assets (red spot), Listed Buildings (blue spot), Schedule Ancient Monuments (red polygon) and HLCA (orange) in relation to the development area (red), 1km (radius) study area (blue) and 5km (radius) study area (green). Ordnance Survey base map produced under licence 100058761



Figure 2. Detail of Christopher Saxton's County Map of Pembrokeshire, 1758 showing 'Nangle' and 'The blockhowse' on either side of the Milford Haven Waterway © National Library of Wales

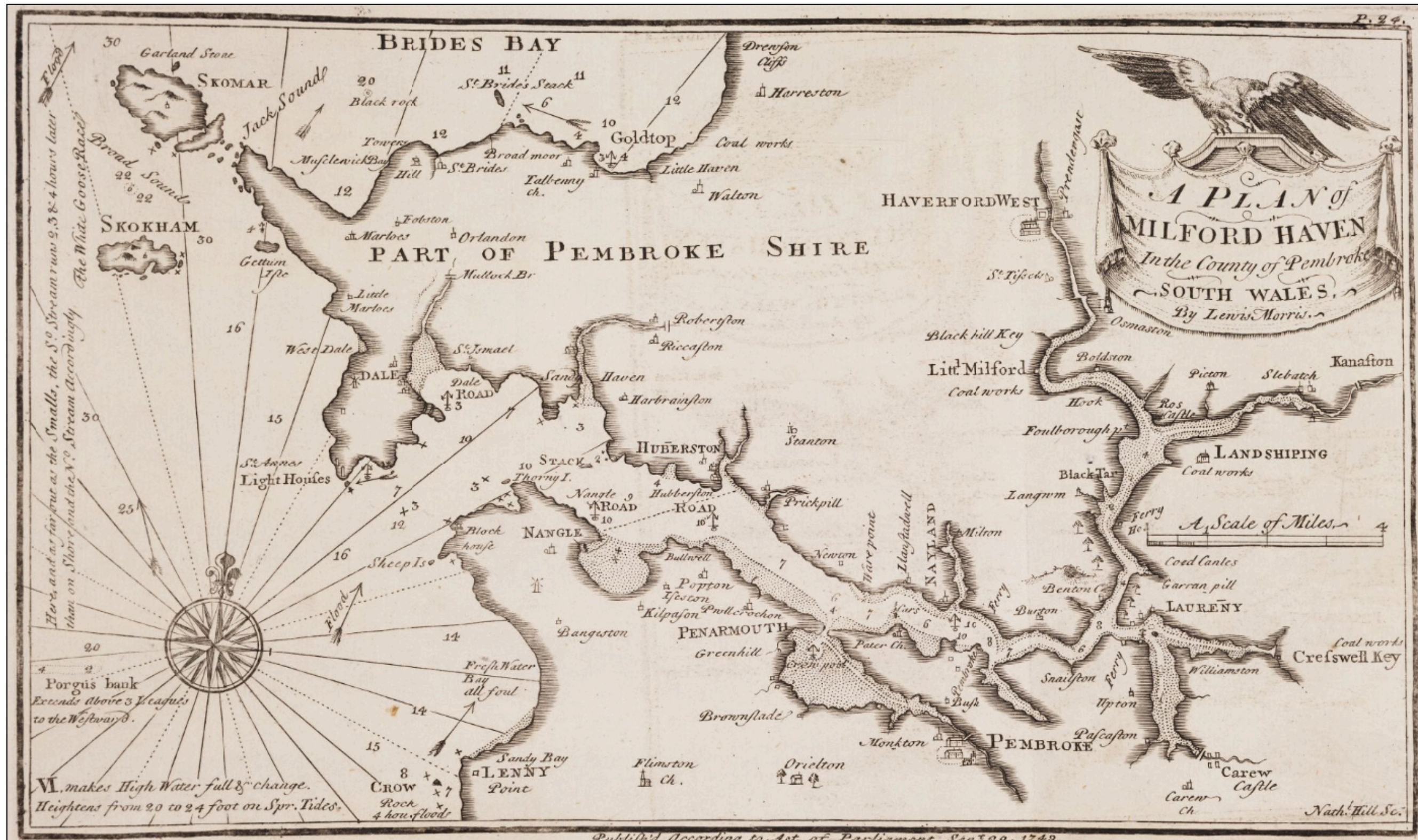


Figure 3. Admiralty Map of 1748 by Lewis Morris showing the locations of the 'Old Windmill' and 'Bangeston', both within the study area. © National Library of Wales

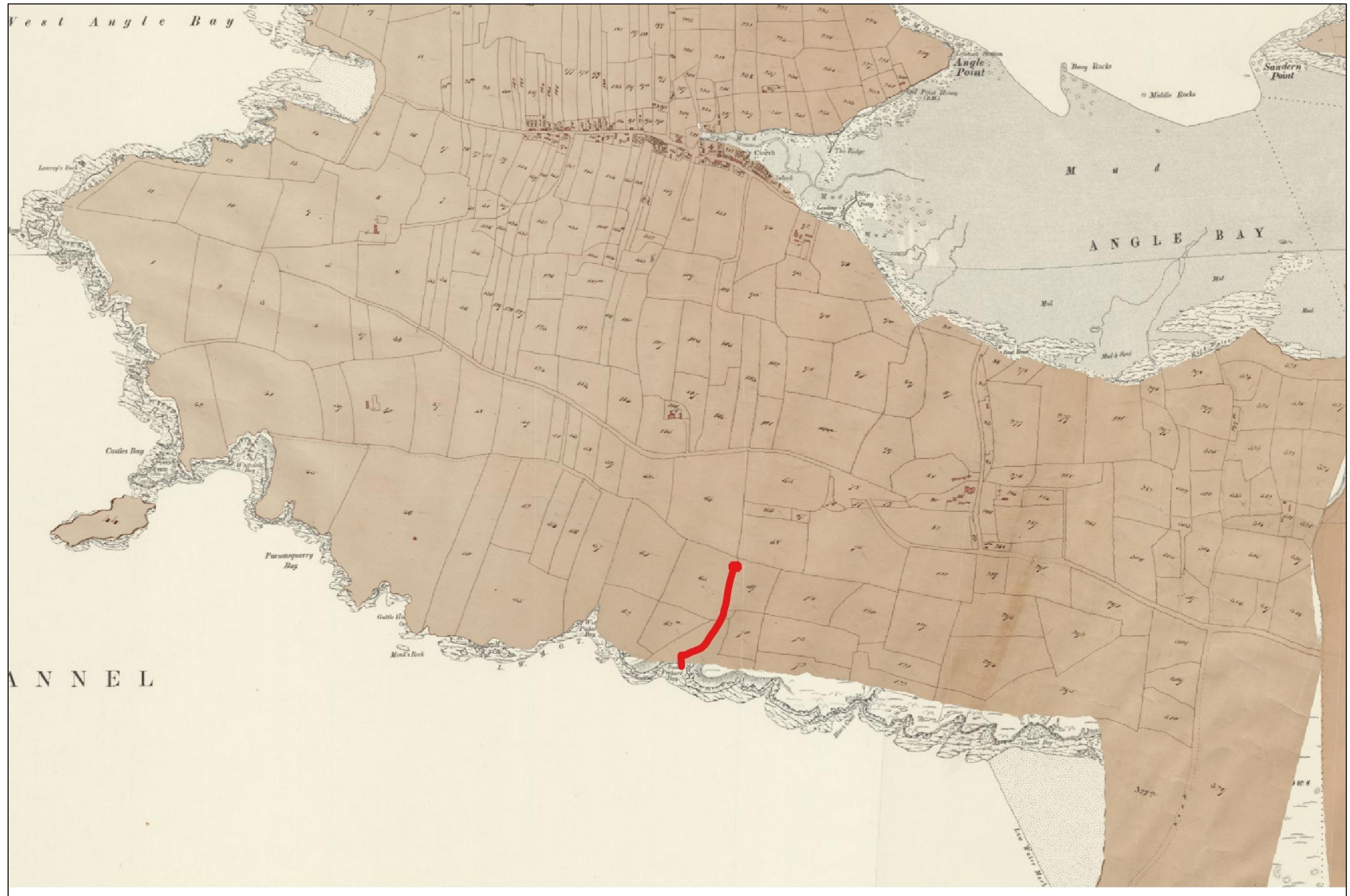


Figure 4. The 1842 Tithe Map of Angle Parish shows that the development area is situated within open fields of pasture and arable, which form a part of 'Banjeston Demesne' According to Fenton (1811), Bangeston Manor was already abandoned by this date. ©National Library of Wales



Figure 5. The 1st Edition Ordnance Survey Map is dated 1888-1913. There is no significant change from the tithe map but West Pickard 'Camp' and 'Old Windmill' are now marked.

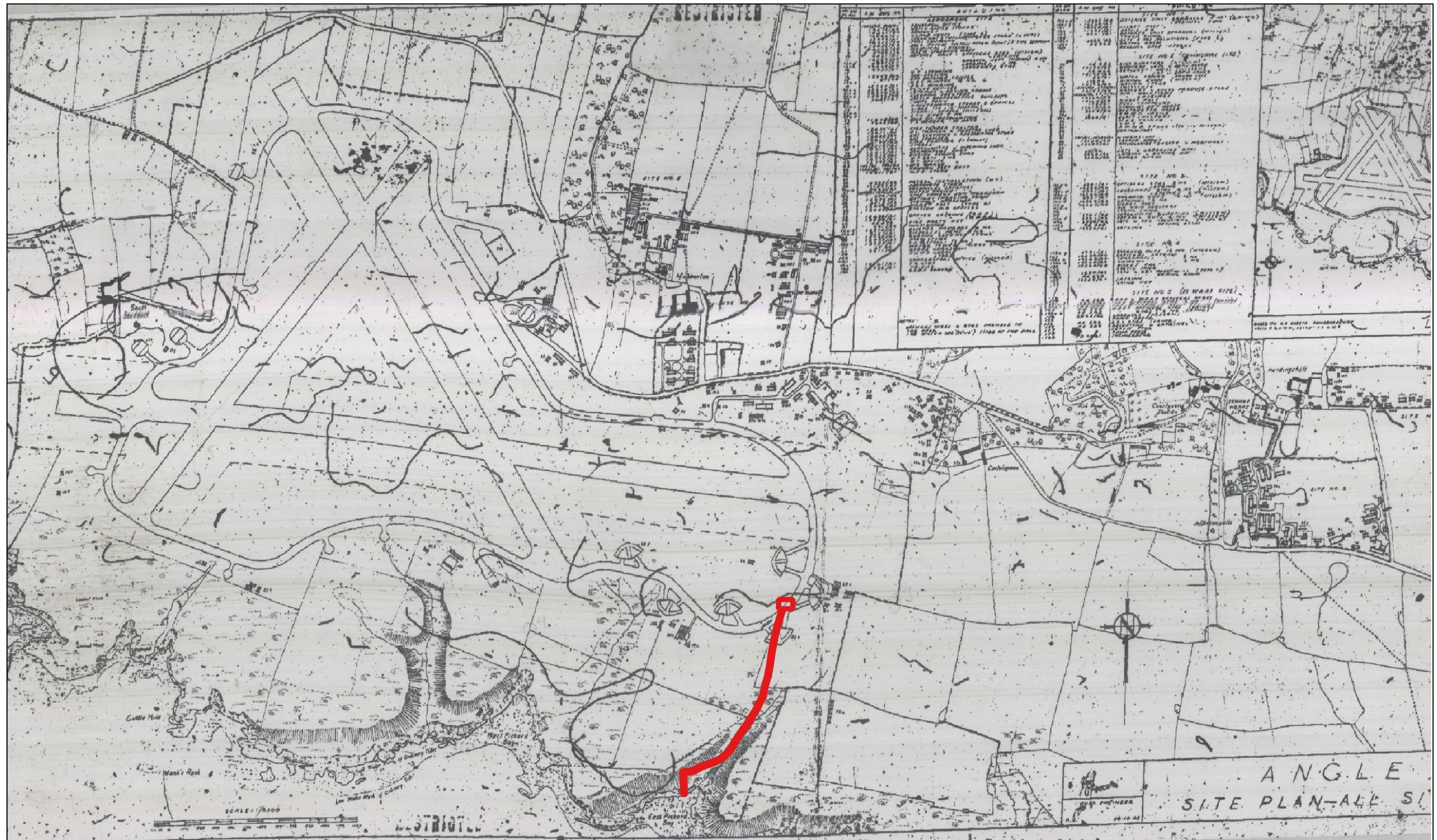


Figure 6. Air Ministry Site Plan of RAF Angle from 1943 shows the layout of the airfield and associated sites in great detail. Note the six dispersal pens in the SE corner of the airfield, only one of which survives. The proposed temporary control centre is situated in close proximity to the sites of the removed dispersal pens.

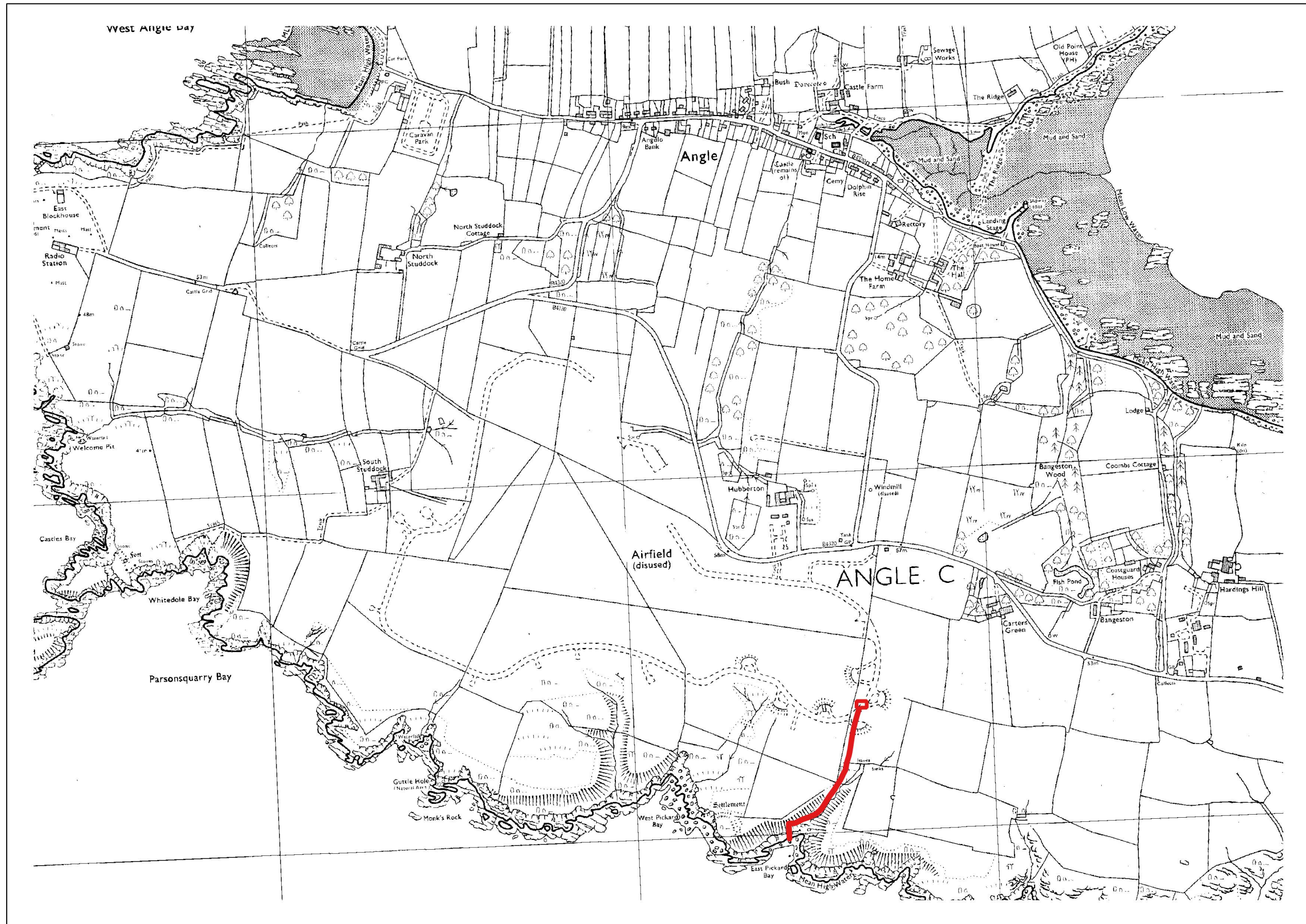


Figure 7. OS Latest Edition Map shows the disused airfield with the perimeter track and dispersal pens marked with dotted lines.

8.2 Appendix II Aerial Photographs

8.2.1 The following is a list of the aerial photographs with coverage of the study area held by the Central Registry of Air Photography for Wales (CRAPW). The images largely followed the chronology of historic maps. No new heritage assets were identified.

Table 6. Aerial photographic search results

| WO no | Sortie No | Date | Ph type |
|-------|-------------------|----------|---------|
| 1950 | 541 RAF 543 F4101 | 01/06/50 | B&W |
| 1950 | 541 RAF 543 F4103 | 01/06/50 | B&W |
| 1950 | 541 RAF 543 F4099 | 01/06/50 | B&W |
| 6831 | OS 68-034 F144 | 12/04/68 | B&W |
| 6831 | OS 68-034 F146 | 12/04/68 | B&W |
| 6831 | OS 68-034 F157 | 12/04/68 | B&W |
| 7371 | 73 221 F298 | 05/06/73 | B&W |
| 7804 | FSL7806 F3140 | 11/06/78 | COL |
| 7804 | FSL7806 F3141 | 11/06/78 | COL |
| 8301 | JAS5083 F192 | 30/07/83 | COL |
| 8301 | JAS5683 F30 | 12/08/83 | COL |

8.3 Appendix III Tithe Apportionment

Table 7. Apportionments relating to the Tithe Map for the Parish of Angle (1842)

| Parcel Number | Landowners | Occupiers | Name and Description of Lands and Premises | State of Cultivation | Quantities in Statute Measure | | | Amount of Rent- charge apportioned upon the several Lands, and to whom payable | | | | | | |
|---------------|----------------|-------------|--|----------------------|-------------------------------|----|----|--|---|---|-------------------------|---|---|---|
| | | | | | A. | P. | R. | Payable to Vicar | | | Payable to Appropriator | | | |
| | | | | | | | | £ | S | P | £ | S | P | |
| 69 | John Mirehouse | John Thomas | Little Ranghill, Banjeston Demesne | Pasture | 7 | - | - | - | - | - | - | - | - | - |
| 70 | John Mirehouse | John Thomas | Hill Piece, Banjeston Demesne | Arable | 5 | - | 10 | - | - | - | - | - | - | - |
| 71 | John Mirehouse | John Thomas | Cliff Land, Banjeston Demesne | Pasture | 7 | - | - | - | - | - | - | - | - | - |

Note. Quantities and Measures are listed in Acres, Roods and Perches (A.R.P.). An acre is 4,840 square yards. A rood is a rectangular area one furlong (10 chains or 40 rods/perches) long by one rod wide. There are 40 perches to a rood, and 160 perches to an acre. The amount (£) due is listed in Pounds, Shillings and Pence (£sd).

8.4 Appendix IV Plates



Plate 1. Aerial Photograph from 1950 showing Angle Airfield in a good condition. The six dispersal pens are visible in the south east corner. © Central Registry of Air Photography for Wales



Plate 2. Aerial photograph from 1978 showing Angle Airfield returned to agriculture with plough marks visible across the runways. The hedgerow boundary in the area of the proposed development area and dispersal pits has move slightly to the west compared to the 1st Edition map (Figure 5). © Central Registry of Air Photography for Wales



Plate 3. Looking East from Wales Coast Path towards location of proposed cable route which will run along stone wall boundary.



Plate 4. Looking SE towards proposed cable route where it will run from cliff edge towards existing fence line.



Plate 5. Looking south along existing boundary cable route location towards East Pickard Bay



Plate 6. Looking north west towards the location of the proposed onshore facilities

8.5 Appendix V

Acknowledgements and Copyright

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Abbreviations

- AP: Aerial Photograph
- CRAPW: Central Register of Air Photography for Wales
- DAT Dyfed Archaeological Trust
- HER: Historic Environment Record (curated by Dyfed Archaeological Trust)
- HLCA Historic Landscape Character Area
- LB: Listed Building
- LPA: Local Planning Authority
- NGR: National Grid Reference
- NMR: National Monuments Record (curated by RCAHMW)
- NPRN: National Primary Record Number (in NMR)
- PRN: Primary Record Number (in HER - curated by Dyfed Archaeological Trust)
- RCAHMW: Royal Commission on the Ancient and Historical Monuments of Wales
- SAM: Scheduled Ancient Monument

Yn rhan o'n hawydd i wella ansawdd ein gwasanaeth, rydym yn croesawu unrhyw adborth y gallwch ei ddarparu.

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