

# **GREENLINK INTERCONNECTOR, PEMBROKESHIRE: HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT UPDATE**



*View east inland across landfall site at Freshwater West beach*



Prepared by Dyfed Archaeological Trust  
for Arup





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## GREENLINK INTERCONNECTOR, PEMBROKESHIRE: HISTORIC ENVIRONMENT DESK- BASED ASSESSMENT UPDATE

Gan / By

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## **GREENLINK INTERCONNECTOR, PEMBROKESHIRE: HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT UPDATE**

### **SUMMARY**

*DAT Archaeological Services were commissioned by Arup to prepare a Historic Environment Desk-Based Assessment for the land based elements of the proposed Greenlink Interconnector Project proposals. This project aims to provide an electrical connection between Ireland and GB national grids via a subsea cable. Landfall for the cable will be at Freshwater West and it will run to the Pembroke Power Station in Pembrokeshire (Roughly NGR SM 8783 0039 to SM 9350 0239).*

*To determine the archaeological potential of the site area a 2km buffer zone around all elements and options for the scheme was used to search for designated archaeological and historical remains and a 1km buffer zone for non-designated remains.*

*Eight Scheduled Ancient Monuments lie within 2km of the Greenlink Interconnector Project, of which only two will have their settings affected by the proposals during construction. These are the site of the Neolithic burial chamber of the Devil's Quoit (PE020) and the gravel Bay Anti-Aircraft Battery (PE494). The works in their vicinity will include a drilling site for directional drilled cable and potential areas of open-cut for the cables north of the drilling site. Following completion these areas will be backfilled and returned to agricultural land and so impacts will be temporary.*

*There are numerous listed buildings within the 2km area with only the Grade II listed war memorial overlooking Freshwater West having any significant temporary setting impacts during construction. The edges of two Conservation Areas (Angle and Pembroke Dock) just encroach into the west and eastern sides of the 2km buffer zone. It is considered that neither of these will be impacted upon by the development proposals. The majority of the Greenlink Interconnector Project lies within the Milford Haven Waterway Registered Landscape of Historic Interest. The scale of the proposals, the fact that the proposals are mostly only temporary impacts and the existing landscape character of this part of the registered landscape (containing both the Valero Oil refinery and Pembroke power Station) is such that impacts are considered negligible. There are no designated Historic Park and Garden within 2km of the scheme.*

*Numerous non-designated known archaeological and historical sites lie within the 1km buffer zone around the Greenlink Interconnector Project area. These include quite a number of Mesolithic and Neolithic flints scatters (as well as the Devil's Quoit Neolithic tomb). Bronze Age burial mounds, burnt mounds and flint scatters are known in the 1km (and 2km) buffer zones. Iron Age sites relate to scheduled promontory forts in the wider 2km area. There are very few Roman sites. Early medieval are focussed on the existing church sites at Pwllcrochan and Rhoscrowther. Medieval sites either relate to agriculture or existing settlements sites and farms. Post medieval and modern sites are by far the most numerous recorded and relate both to existing settlement and farms, agricultural activity, industrial activity (including the oil refinery and power station) and defence sites from World War II.*

*Previous disturbance to the proposed HDD site, HVDC cable routes and Converter Station Options is relatively limited. The HDD site was partially built on during World War II for ancillary buildings for the nearby gun emplacement. The HVDC cable route options mostly run through agricultural fields (including the field in*

*which the Devil's Quoit lies) or run alongside existing roads. The routes alongside roads will have suffered previous disturbance from road construction, drainage and services. The agricultural fields will have suffered limited disturbance from agricultural practices such as ploughing.*

*Converter Station option 1 lies in a low lying agricultural field south of the Pembroke Power Station substation. This area may have been partially landscaped when the Power Station was built on its northeastern side and potentially directly adjacent to the substation. Option 2 lies in a rough pasture field with a reservoir in its northwestern corner. Option 3 lies within a grassed field. All of these areas will have suffered limited previous disturbance from agricultural practices.*

*Three former house sites lie within the Greenlink Interconnector area, two on the road west of Wallaston Cross: Vine Cottage which survives as a ruin; and the former site of Hoplass Cottages; and the third which formerly lay within the Converter Station Option 2 area.*

*It is recommended that further archaeological works should be undertaken in advance of the scheme being taken forward. This should involve geophysical survey of all suitable areas of the site area including the HDD site, the Devil's Quoit field, the HVDC cable where it crosses agricultural land and whichever Converter Station Option areas are being taken forward. Where HVDC cable routes run along roads it needs to be confirmed if working easements will be needed for these or whether the cable will be laid in the verges and access will be along the existing roads (in this case no geophysical survey would be necessary).*

*The results of the surveys should identify the presence of archaeological features and enable a further scheme of archaeological investigation to be developed or a redesign of the proposals to avoid archaeological remains. Where significant archaeology is identified and where it will be disturbed then further investigation and possible excavation (preservation through record) may be required in advance of the development commencing. If no or few remains are identified then an archaeological watching brief should be maintained during the development programme. The nature of any such required archaeological works would need to be discussed with the Development Management section of Dyfed Archaeological Trust section in their capacity as archaeological advisors to the local planning authorities.*

*Overall the desk-based assessment has not identified any significant constraints to any of the proposed HVDC cable route options, the HDD site or the Converter Station Options. It would be better archaeologically to avoid placing the HVDC cables through open agricultural land and choose routes along existing roads where possible. Ideally the cable would be drilled through the field containing the Devil's Quoit. Following completion of the installation of the cable, the HDD site and HVDC cable route should be backfilled and the ground returned to as it is now creating only a temporary impact on the surrounding historic environment during the construction process. The Converter Station options will involve permanent structures being built, although as they lie close to the Pembroke Power Station in an area where such structures are already present, including numerous overhead high voltage and smaller power lines, the impact on the historic environment will be quite limited.*

## **1 INTRODUCTION**

### **1.1 Project Proposals and Commission**

- 1.1.1 DAT Archaeological Services were commissioned by Ove Arup and Partners Ltd (Arup) to prepare a Historic Environment Desk-Based Assessment to support the development of the Greenlink Interconnector project. This project aims to provide an electrical connection between Ireland and GB national grids via a subsea cable. Landfall for the cable will be at Freshwater West and it will run to the Pembroke Power Station in Pembrokeshire (Roughly NGR SM 8783 0039 to SM 9350 0239).
- 1.1.2 The Historic Environment Desk-Based Assessment for the Greenlink Interconnector will inform design development of the scheme and inform a non-statutory Environmental Report that will be prepared to support the submission of a planning application in March 2019.
- 1.1.3 In 2013 an archaeological desk-based assessment was prepared by DAT Archaeological Services for the precursor project referred to as 'Greenwire' (Davies 2013). This Historic Environment Desk-Based Assessment provides an update to this earlier report to include new searches of archaeological and historical data for the new scheme and to adhere to more recent guidance and planning laws.
- 1.1.4 This desk-based assessment specifically addresses potential cultural heritage constraints for the Onshore Wales elements of the project (as opposed to any marine archaeological constraints which will be addressed in a separate report. This report will thus consider the following elements of the project, as defined by Arup in their letter requesting a tender for the work dated 09/07/2018:
- The landfall of the cable route to the Mean Low Water Springs mark;
  - A 250m buffer around the various proposed HVDC (High Voltage Direct Current) cable route options being considered from Freshwater West to Pembroke Power Station; and
  - The HDD (Horizontal Directional Drilling) Site near the landfall at Freshwater West and potential Converter Station sites around Pembroke Power Station.

### **1.2 Scope of the Project and Methodology**

- 1.2.1 The scope of the assessment follows the Standard and Guidance For Historic Environment Desk-Based Assessment as laid down by the Chartered Institute for Archaeologists (CIfA 2014). The standard is stated as:

*Desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area. Desk-based assessment will be undertaken using appropriate methods and practices which satisfy the stated aims of the project, and which comply with the Code of conduct and other relevant regulations of CIfA. In a development context desk-based assessment will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do so), and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact.*

- 1.2.2 A desk-based assessment is defined by CIfA as:

*a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage assets and, in England, the nature, extent and quality of the known or potential archaeological, historic, architectural and artistic interest. Significance is to be judged in a local, regional, national or international context as appropriate.*

- 1.2.3 A written scheme of investigation (WSI) for the historic environment desk-based assessment has been prepared by DAT Archaeological Services, which has been approved by the Development management section of Dyfed Archaeological Trust in their capacity as advisors to the local planning authority, prior to the commencement of the works (Appendix I). The overall work was summarised as:

*The preparation of a desk-based assessment for the proposed Greenlink Interconnector project between Freshwater West and Pembroke Power Station, Pembrokeshire. The report will assess the potential impact that the development might have on any underlying archaeological remains within study areas around the landfall site, proposed cable routes and Converter Stations to provide a suitable assessment of the wider impact of the development on the historic environment and potential archaeology within the site areas. The study areas will be of sufficient size to enable small amendments to the cable routes, as well covering access and other necessary associated construction infrastructure. The assessment will be presented within a report that will be submitted with the planning application for the proposed development.*

- 1.2.4 The desk-based assessment will involve the preparation of a stand-alone report. The report will be prepared using relevant information from a number of sources, building on and updating the previous report for the precursor 'Greenwire' project (Davies 2013) and will comprise the following elements:

- Updated search of Dyfed Archaeological Trust Historic Environment Record data and other relevant information (DAT HER in Llandeilo);
- Updated search of National Monuments Record of Wales information as held by the Royal Commission on the Ancient and Historic Monuments of Wales in Aberystwyth (RCAHMW offices in Aberystwyth);
- Bibliographic, cartographic and photographic information held at the National Library of Wales and information held at the Local Studies Library;
- Identification of any Scheduled Ancient Monuments, Listed Buildings, Parks and Gardens, Historic Landscape Character Areas or Conservation Areas within or in the vicinity of the site area (Cadw, DAT, NRW);
- Relevant web-based information;
- Site visit and walkover survey;
- Assessment of the archaeological potential of the area; and
- Assessment of likely impacts on any identified remains (or potential remains) and likely requirements, if any, for further stages of archaeological work.

- 1.2.5 Search areas of 1km for non-designated historic assets and 2km for designated historic assets (scheduled monuments, listed buildings, Registered Historic Parks and Gardens, Registered Historic Landscapes, Conservation Areas) have been used around the combined HVDC cable route options, the HDD drilling site at Freshwater West and the Converter Station options at Pembroke Power Station. The locations of the cable route options and the HDD site and Converter Stations options have been taken from the plan as supplied in the tender documentation (reference SK005 dated 2018-06-28) and recent plans showing preferred route options as supplied by Arup. The possible cable route option through the Valero site as shown on the original plan (reference SK005 dated 2018-06-28) has been removed for this assessment as it has been confirmed that this option is no longer being pursued.
- 1.2.6 The buffer zones will provide information on known historic assets within the vicinity of the Greenlink Interconnector Project proposals in order to provide sufficient overview of the nature of the areas heritage and ascertain archaeological potential of the site area.
- 1.2.7 For the purposes of planning policy in Wales, the historic environment is defined as
- All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and deliberately planted or managed,*
- and a 'historic asset' is
- An identifiable component of the historic environment. It may consist or be a combination of an archaeological site, a historic building or area, historic park and garden or a parcel of historic landscape. Nationally important historic assets will normally be designated (Welsh Government 2017).*
- 1.2.8 This report contains information about the historic environment and historic assets in the vicinity of the proposed development site, which will assist the archaeological advisors to the planning authority in their decision about what, if any, archaeological mitigation will be required. Further guidance on how the planning system considers the historic environment and assets during development plan preparation and decision making on planning and Listed Building (LBC) applications can be found in. *Planning Policy Wales: Technical Advice Note 24: The Historic Environment* (Welsh Government 2017; available online).

### **1.3 Abbreviations**

- 1.3.1 All sites recorded on the regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites recorded on the National Monument Record (NMR) held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) are identified by their National Primary Record Number (NPRN). Scheduled Monument (SM). Altitude is expressed to Ordnance Datum (OD). HDD – Horizontal Directional Drilling. HVDC – High Voltage Direct Current.
- 1.3.2 References to cartographic and documentary evidence and published sources will be given in brackets throughout the text, with full details listed in the sources section at the rear of the report.

## 1.4 Illustrations

- 1.4.1 Printed map extracts are not necessarily reproduced to their original scale. North is towards the top of the page unless otherwise indicated.

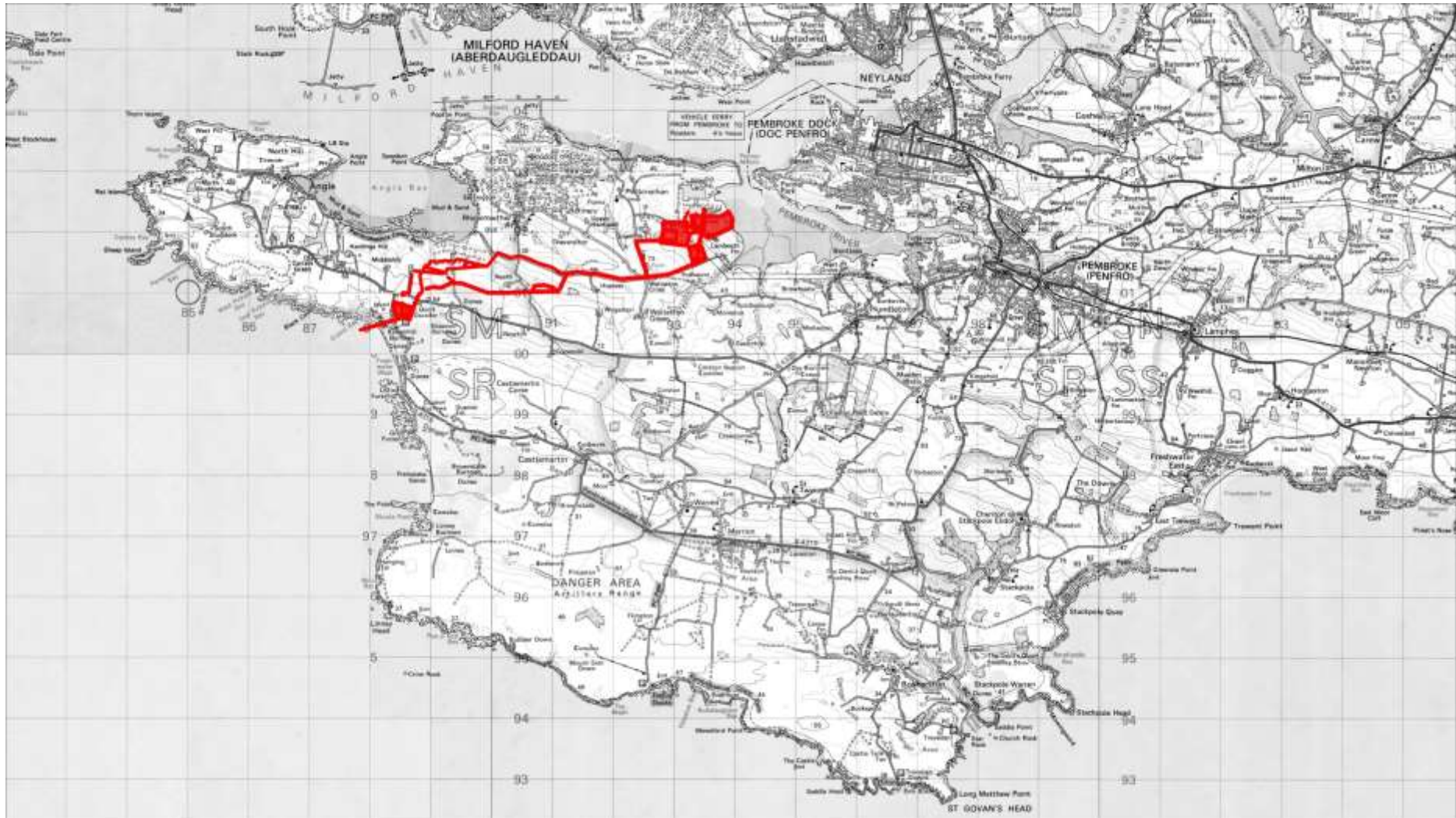
## 1.5 Timeline

- 1.5.1 The following timeline (Table 1) is used within this report to give date ranges for the various archaeological periods that may be mentioned within the text.

Period	Approximate date	
Palaeolithic –	c.450,000 – 10,000 BC	Prehistoric
Mesolithic –	c. 10,000 – 4400 BC	
Neolithic –	c.4400 – 2300 BC	
Bronze Age –	c.2300 – 700 BC	
Iron Age –	c.700 BC – AD 43	
Roman (Romano-British) Period –	AD 43 – c. AD 410	Historic
Post-Roman / Early Medieval Period –	c. AD 410 – AD 1086	
Medieval Period –	1086 – 1536	
Post-Medieval Period <sup>1</sup> –	1536 – 1750	
Industrial Period –	1750 – 1899	
Modern –	20th century onwards	

**Table 1:** Archaeological and Historical Timeline for Wales

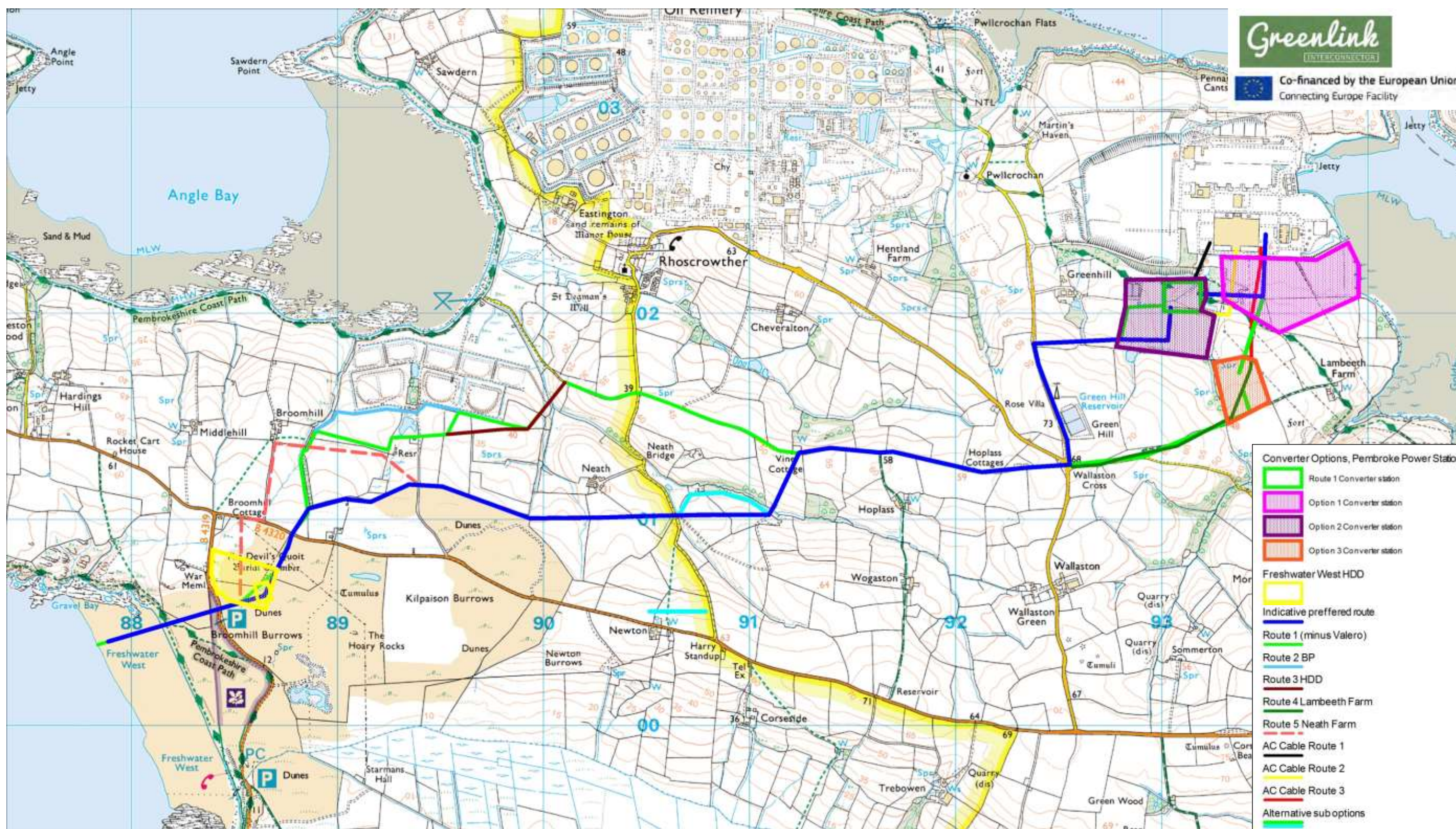
<sup>1</sup> The post-medieval and Industrial periods are combined as the post-medieval period on the Regional Historic Environment Record as held by Dyfed Archaeological Trust



**Figure 1:** Location Map for the proposed Greenlink Interconnector Project site, Pembrokeshire  
(with options for cable routes/connector stations in red)

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**Figure 2:** Map showing the various proposed cable routes and Converter Station areas for the Greenlink Interconnector Project, Pembrokeshire, information provided by client)

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## **2 RELEVANT PLANNING POLICY RELATING TO THE HISTORIC ENVIRONMENT**

### **2.1 National Policies and Guidance**

2.1.1 The Ancient Monuments and Archaeological Areas Act 1979 was previously the primary legislation for protecting archaeological remains and Scheduled Ancient Monuments. This has recently been superseded by the The Historic Environment (Wales) Act 2016 which has three main aims as defined by Cadw:

- to give more effective protection to listed buildings and scheduled monuments;
- to improve the sustainable management of the historic environment; and
- to introduce greater transparency and accountability into decisions taken on the historic environment.

2.1.2 The new Act amends the Ancient Monuments and Archaeological Areas Act 1979 and also the Planning (Listed Buildings and Conservation Areas) Act 1990. It is supported by a number of planning guidance documents, a number of which are still in preparation. The Act most specifically provides better safeguards for the protection of Scheduled Ancient Monuments, Listed Buildings and Historic Parks and Gardens. It will also include further guidance on place names.

2.1.3 TAN 24 The Historic Environment was adopted on 31<sup>st</sup> May 2017 which replaced Circular 60/96 'Planning and the Historic Environment and Circular 61/96 'Planning and the Historic Environment: Historic Buildings and Conservation Areas'. This states that 'The purpose of this TAN is to provide guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning and Listed Building (LBC) applications. This TAN provides specific guidance on how the following aspects of the historic environment should be considered:

- World Heritage Sites
- Scheduled monuments
- Archaeological remains
- Listed buildings
- Conservation areas
- Historic parks and gardens
- Historic landscapes
- Historic assets of special local interest'

2.1.4 Advice and decisions on planning applications affecting nationally significant historic environment features (or designated historic assets) is provided by Cadw acting on behalf of Welsh Government.

2.1.5 This report will also make reference to other guidance documents published by Cadw, namely: Conservation Principles (March 2011); Heritage Impact Assessment in Wales (May 2017); Managing Historic Character in Wales (May 2017); and Setting of Historic Assets in Wales (May 2017).

## 2.2 Local Policies

2.2.1 The proposed Greenlink Interconnector Project proposals lies within both the Pembrokeshire Coast National Park Authority (between the landfall site and the road to Neath Farm) and Pembrokeshire County Council for the remainder of the route.

### 2.2.2 **Pembrokeshire Coast National Park Authority** (PCNPA)

2.2.2.1 The Historic Environment is subject to the relevant policies and procedures as laid out in the Pembrokeshire Coast National Park Local Development Plan (LDP) (end date 2021) (adopted September 2010). The LDP is presently in review.

2.2.2.2 'National Park Purposes and Duty and the Spatial Strategy' Policy 1 states

*Development within the National Park must be compatible with:*

- a) the conservation or enhancement of the natural beauty, wildlife and **cultural heritage** of the Park..

2.2.2.3 The LDP references the special qualities of the park and specifically refers to the **Historic Environment** in two policies:

**Policy 13: Historic Landscapes Parks and Gardens**

**Policy 14: Protection of Buildings of Local Importance**

2.2.2.4 The PCNP LDP defines cultural heritage and the historic environment as follows:

*Cultural Heritage*

*The cultural heritage of Pembrokeshire Coast National Park includes all evidence of past human activity, as well as people's responses to, and associations with those activities. It includes the aesthetic appreciation as well as the physical evidence of people's activities, and is embodied in language, art, and the meaning and interpretation which we give to our landscape and historic environment. It is all around us, providing a context for our daily lives and influencing regional and local identity.*

*Historic Environment*

*The historic environment of the Pembrokeshire Coast National Park encompasses all those material remains that our ancestors have created on land and coast. It ranges from historic landscapes, parks and gardens, distinctive field patterns and thoroughfares through to historic settlements, traditional buildings, ancient monuments and buried archaeological sites. It provides a constant reminder of past human enterprise, a source of enjoyment and learning and combines with the natural environment and habitats of the National Park to give us a unique sense of place, daily inspiration and an important asset for the future.*

2.2.2.5 The PCNPA LDP goes further to discuss the Historic Environment in sections 1.17 – 1.21 where it states:

1.17. The historic environment of the Pembrokeshire Coast National Park is exceptionally rich and varied. The resource ranges from famous individual sites like Pentre Ifan or Carew Castle to the preserved multi-period landscapes of the Preselis. More recent archaeology includes the important evidence of a military presence in Pembrokeshire.

1.18. Some individual sites and monuments are given statutory protection by their status as Scheduled Ancient Monuments. Similarly, some historic buildings are protected as being designated as Listed

Buildings. However, these sites make up a small proportion of the overall historic resource of the Park.

1.19. There are more than 5500 sites or features recorded within the National Park in the Sites and Monuments Record. Of these, around 1500 are either Listed Buildings or Scheduled Ancient Monuments. This means that more than  $\frac{3}{4}$  of sites recorded inside the Park boundaries do not have statutory protection.

1.20. These features were prized by people visiting the Park and residents who live there.

1.21. The National Park also includes a series of Landscapes of Special Historic Interest in Wales and Historic Parks and Gardens and 14 Conservation Areas.

- 2.2.2.6 Overall the PCNPA LDP recognises the historic environment as an important aspect of the region that needs to be protected. It notes that many archaeological and historical sites do not have any statutory protection, yet are a prized resource of the Park, but the LDP does not make any specific reference to policies regarding the specific protection of such sites. Due to the LDP having been adopted in 2010, it does not make reference to the Historic Environment Act (Wales) 2016 and is thus out of date, although is under review.

### 2.2.3 **Pembrokeshire County Council Policies**

- 2.2.3.1 The Historic Environment is subject to the relevant policies and procedures as laid out in the Pembrokeshire County Council (PCC) Local Development Plan (LDP) (up to 2021) (adopted February 2013). The PCC LDP is also presently under review.

- 2.2.3.2 The historic environment is referenced throughout the document in numerous policies, emphasising its significance to the county. The main policy references to the Historic Environment are outlined in policy GN.38:

***GN.38 Protection and Enhancement of the Historic Environment:***  
*Development that affects sites and landscapes of architectural and/or historical merit or archaeological importance, or their setting, will only be permitted where it can be demonstrated that it would protect or enhance their character and integrity*

*6.154 Pembrokeshire has a rich and varied historic environment made up of architectural, historical and archaeological features that are integral to its quality and distinctiveness. The historic environment enhances quality of life, forging cultural identity and community cohesion and is a major asset to Pembrokeshire's visitor economy. This policy builds on national policy, to draw attention to the scale and significance of these assets within Pembrokeshire and to protect, preserve and enhance these features and designations. It ensures that Pembrokeshire's historic environment including formally designated sites together with buildings and features of local importance and interest, and their setting, are appropriately protected and enhanced. Development that may detrimentally affect the character or integrity of such areas will not be permitted.*

*6.155 The special qualities of the historic environment can be derived from numerous other factors, in addition to those listed in formal designations, such as the form, scale or grouping of buildings; vistas and visual composition of the townscape/landscape; architectural detailing; building materials; trees and other landscape features. Many of these features make an important contribution to the character and appearance of local communities.*

*Pembrokeshire's towns and villages contain many buildings that are of local importance and which make a significant contribution to the character and quality of the local area.*

*The Council will seek to ensure that necessary change is accommodated without sacrificing the essential integrity, coherence and character of the landscape and will have particular regard to potential developments that, alone or in combination, would have a significant impact on landscapes included in the Register of Landscapes of Historic Interest in Wales.*

*6.156 In assessing development that may affect archaeological remains the Council will take into account:*

- 1. Information (including from the Historic Environment Record (HER), held by Dyfed Archaeological Trust) on the character, extent and importance of the remains,*
- 2. The extent to which the proposed development is likely to impact upon them,*
- 3. The means of mitigating the effect of the proposed development by redesign to achieve physical preservation in situ.*

*6.157 Areas and sites of national significance are protected by national policy including Listed Buildings, Conservation Areas, Scheduled Ancient Monuments, Landscapes of Historic Interest and Historic Parks and Gardens. In addition to national policy adopted Conservation Area Character Appraisals will also be a material consideration when determining planning applications.*

- 2.2.3.4 The PCC LDP defines cultural heritage (within which it defines the historic environment) as follows:

*Cultural Heritage*

*This encompasses the historic environment, cultural legacy and linguistic heritage. The historic environment includes archaeology, ancient monuments, listed buildings, conservation areas, historic parks, gardens and landscapes and the broad social history that has helped to shape local distinctiveness. Linguistic heritage includes the Welsh language and different dialects, recognising that the linguistic heritage of Pembrokeshire includes both Welsh and English languages, with the Landsker line representing the broad divide between these two traditions. Together the historic, cultural and linguistic heritage form cultural heritage which contributes towards a sense of cultural identity*

### **3 LOCATION, TOPOGRAPHY AND GEOLOGY**

- 3.1 The Greenlink Interconnector project proposals cover a roughly 6.3km east to west strip through the southwestern part of Pembrokeshire from the landfall site at Freshwater West beach through to the Pembroke Power Station (Roughly NGR SM 8783 0039 to SM 9350 0239).
- 3.2 The site lies within Pembrokeshire, the western part within the Pembrokeshire Coast National Park. The majority lies within the planning jurisdiction of Pembrokeshire County Council.
- 3.3 The subject of this report covers the area from the landfall site on Freshwater West beach to the Pembroke Power Station. To the east of the landfall site will be the HDD site (Horizontal Directional Drilling area), which will comprise the drill site and a storage area. The field within which the HDD site will be located is confirmed, although the exact location of the drill site has not been determined as yet.
- 3.4 A number of options for the routes of the High Voltage Direct Current (HVDC) cable have been proposed, running from the landfall site, through the HDD site and onto the Converter Station at Pembroke Castle. The cable will be inserted in a mix of directional drilling and open-cut trench. The majority of the proposed routes will follow existing roadlines, with the cable being proposed to be located in the verges adjacent to the roads.
- 3.5 Three locations for the Converter Station at Pembroke Power Station are being considered. Two lie in close proximity to the existing large substation building, with the third option being located slightly further to the south in a field directly north of the road to Lambeeth.
- 3.6 The topography of the proposed HVDC routes rises sharply upwards from the landfall site on the beach, running uphill roughly northeast towards the area of the Devil's Quoit cromlech. The proposed cable route will then run north beneath the B4320 onto a north facing slope overlooking Angle Bay, before turning eastwards and running along the side of the slope, either to the north or south of Neath Farm. Should the route follow the existing road lines in this area the topography could be described to be gently undulating. At the eastern end of the scheme the HVDC cable will circuit the relatively small hill called Green Hill. One route passes along the southern side which is relatively level before heading north to the Converter Station option site close to Lambeeth farm (Option 3) or head over the hill to Option 1, immediately south of the Pembroke Power Station substation. The second option will pass to the west of Green Hill, running downhill towards Pwllcrochan before turning east again along a roughly level route to the Converter Station Option 2 southwest of Pembroke Power Station. The route options will pass through sand dunes to the west before crossing agricultural land (mostly pasture) or running along roadside verges to the Converter Station sites.
- 3.7 The HDD site lies in a roughly level field on a very slight southwestern facing slope. The field is presently improved pasture land.
- 3.8 Converter Station Option 1 site lies within pastureland on a north facing slope heading down to the level of Pembroke Power Station. The area is relatively level in its northern half but quite steep to the south. The eastern end of the Option 1 area runs down to the mouth of the Pembroke River.
- 3.9 Converter Station Option 2 lies within a slightly undulating field at a level above the Pembroke Power Station. An existing covered reservoir lies in the northwestern part of the field. It is presently used as rough pasture.

- 3.10 Converter Station Option 3 lies within a relatively level field which is presently improved pasture (it appears to be planted grass for silage, but may have been an early stage arable crop for winter harvest).
- 3.11 The proposed Greenlink Interconnector Project crosses a number of different geological bedrock types all of which are sedimentary, including Ludlow Rocks (sandstones), Milford Haven Group sandstones, Ridgeway Conglomerate, Skrinkle Sandstone, Avon Group Limestone and Mudstone, and Black Rock Subgroup and Gully Oolite Formation Limestone.
- 3.12 Superficial Geological deposits within the area include Tidal Flat Deposits of Sand, Silt and Clay on the northern edge and Blown Sand (dunes) across the majority of the western and south western parts of the scheme.

## **4. ARCHAEOLOGICAL AND HISTORICAL INFORMATION**

### **4.1 Scheduled Ancient Monuments**

- 4.1.1 There are eight scheduled monuments within a 2km buffer zone around the Greenlink Interconnector Project proposals (Table 2; Figure 3).
- 4.1.2 The closest scheduled monuments to the scheme lie at the western end of the proposals closest to the cable route and proposed HDD site and include the Devil's Quoit (PE020) chambered tomb which lies in the field directly north of the HDD site and proposed HVDC cable route options run to the west or east of the monument within the same field. The monument now comprises three upright supporting stones and a fourth which is now recumbent, with a large capstone on top. The capstone has slumped to the west where one of the uprights has collapsed. There is a worn area around the stones presumably formed by livestock movement.
- 4.1.3 The Gravel Bay anti-aircraft battery (PE494) survives as a series of small brick and concrete structures in a field to the west of the HDD site and north of the proposed HVDC cable route. The buildings are in a relatively good state of preservation.
- 4.1.4 Approximately 1.9km west of the proposals lies West Pickard Camp (PE167), an Iron Age coastal Promontory Fort. It is considered unlikely that there will be any significant intervisibility between this site and the proposals.
- 4.1.5 To the north of the HVDC cable route and northwest of Rhoscrowther village lie the remains of the Eastington medieval Manor House (PE400). The remains lie within an area enclosed by field boundaries and vegetation in a relatively low point of land with no intervisibility with the development proposals. The existing oil refinery and storage tank area lies immediately north and northeast of the Manor House.
- 4.1.6 To the north of Pwllcrochan and northwest of the proposed Converter Station options lies Lewiston Hall inland promontory fort (PE400), again likely to be the remains of an Iron Age defended enclosure. The scheduled monument lies on an east facing slope above Martin's Haven and due to topography and vegetation, there is very limited, if any intervisibility between the site and the Greenlink Interconnector project proposals. The oil refinery and Pembroke Power Station site lie in closer proximity to the monument.
- 4.1.7 Wallaston Round barrow cemetery (PE064), comprising the remains of four Bronze Age burial mounds lies some 900m to the south of the proposed HVDC cable route at Wallaston Cross. Close to the southeast of these lies the Corston Beacon Round Barrow (PE059) another Bronze Age burial mound, some 1.5km south-southeast of Wallaston Cross. These monuments survive as upstanding mounds close to the road to Angle. There will be some intervisibility with the line of the HVDC cable route, and limited intervisibility with the Converter Station Option 3.
- 4.1.8 The final scheduled monument lies to the north of Pembroke Power Station, West Pennar Camp (PE262) the remains of an earthwork enclosure. The date of this feature is not certain. Aerial photographic analysis undertaken as part of the assessment suggests that the western side of the enclosure may have been utilised during World War II when the Pennar Cants gun emplacement and searchlight battery was in use. The monument is likely to have some intervisibility with the Converter Station Options 1 and 2 and parts of the line of the HVDC cable. It should be

noted that between the proposals and the scheduled monument lies Pembroke Power Station.

SAM No.	Site Name	Site Type	NGR	Period
PE020	Devil's Quoit Burial Chamber	Chambered tomb	SM8865500841	Prehistoric
PE059	Corston Beacon Round Barrow	Round barrow	SM9331599990	Prehistoric
PE064	Wallaston Round Barrows	Round barrow	SM9260900366	Prehistoric
PE167	West Pickard Camp	Promontory Fort – coastal defence	SM8624901032	Prehistoric
PE262	West Pennar Camp	Enclosure	SM9336903035	Prehistoric
PE263	Eastington Manor House	Manor House	SM9008302530	Medieval
PE400	Enclosure & Earthworks at Lewiston Hall	Promontory Fort - inland	SM9211403101	Prehistoric
PE494	Gravel Bay anti-aircraft battery	Defence Battery	SM8823500774	Post Medieval/ Modern

**Table 2:** Scheduled Monuments within 2km of the Greenlink Interconnector Project proposals

## 4.2 Listed Buildings

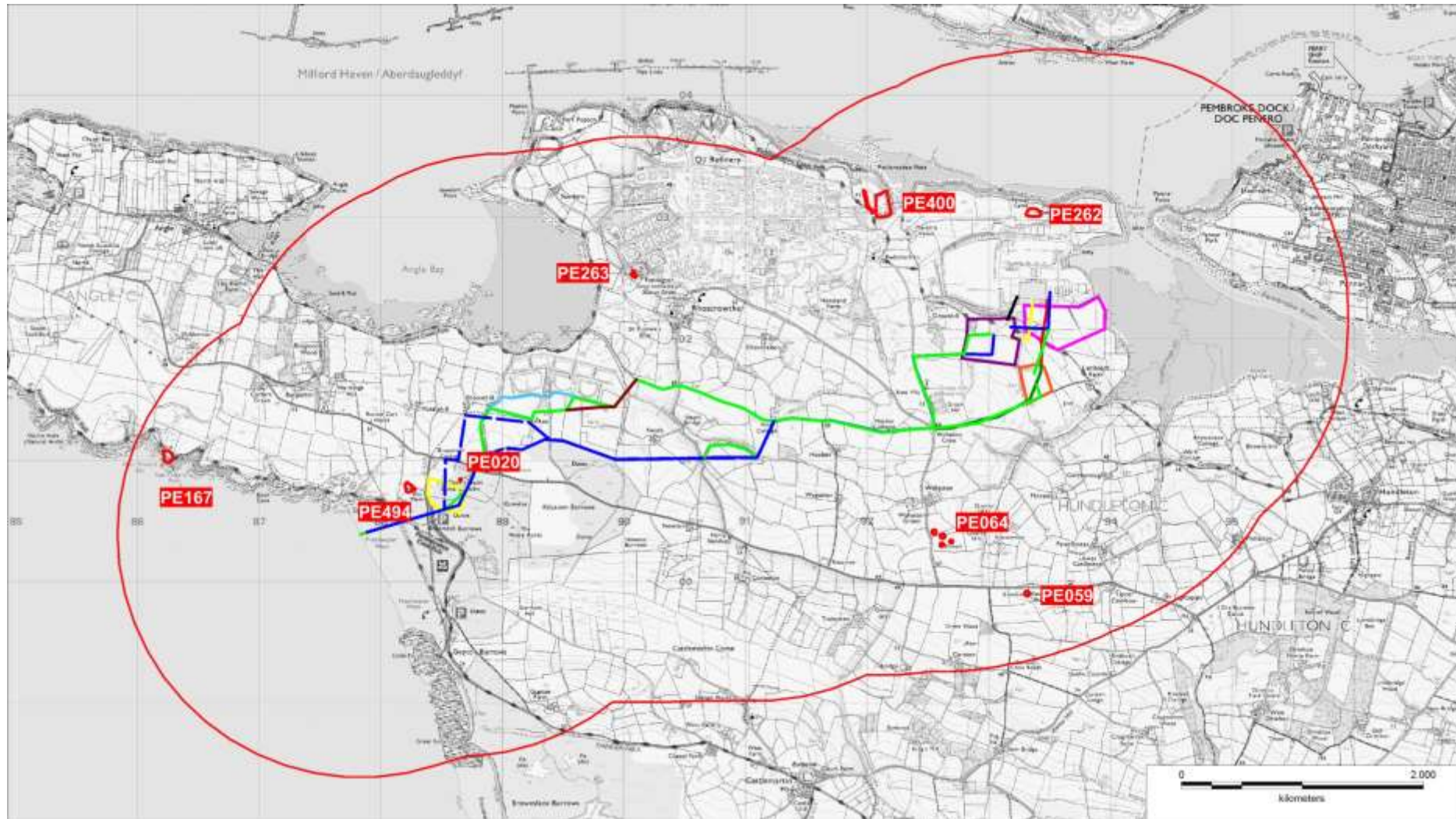
- 4.2.1 There are 26 listed buildings in the 2km buffer zone around the Greenlink Interconnector Project proposals (see Table 3; Figure 4).
- 4.2.2 Of these, only two of them are listed higher than Grade II: The Tower House at Eastington Manor (LB6594, Grade I); and The former Church of Saint Mary at Pwllcrochan (LB6587; Grade II\*). Neither of these structures will be intervisible with the Greenlink Interconnector proposals.
- 4.2.3 Of the remaining 24 listed buildings there will be quite a number with some intervisibility with the proposals, although only the Grade II war memorial at Broomhill Burrows (LB17162) will have any clear views across the site.

LB Number	Building Name	Parish	NGR	Grade
6594	The Tower At Eastington Manor House	Hundleton	SM9009702512	<b>Grade I</b>
6587	Former Church Of Saint Mary, Pwllcrochan	Hundleton	SM9205102657	<b>Grade II*</b>
16583	Seaweed Hut on foreshore Freshwater West	Castlemartin	SR8857399387	Grade II
17162	War Memorial Broomhill Burrows	Angle	SM8836000734	Grade II
17166	Rocket Cart House Hardings Hill	Angle	SM8791701315	Grade II
17167	Lookout Tower Hardings Hill	Angle	SN8792001310	Grade II
5926	Windmill adapted as machine-gun post Remains of Old Windmill Hubberton	Angle	SN8668601945	Grade II
5954	Corse Bridge and attached Walled Channel Gupton Burrows Bridge	Castlemartin	SR8855199736	Grade II
6563	Brownsate Farmhouse, Goldborough	Hundleton	SM9538001188	Grade II



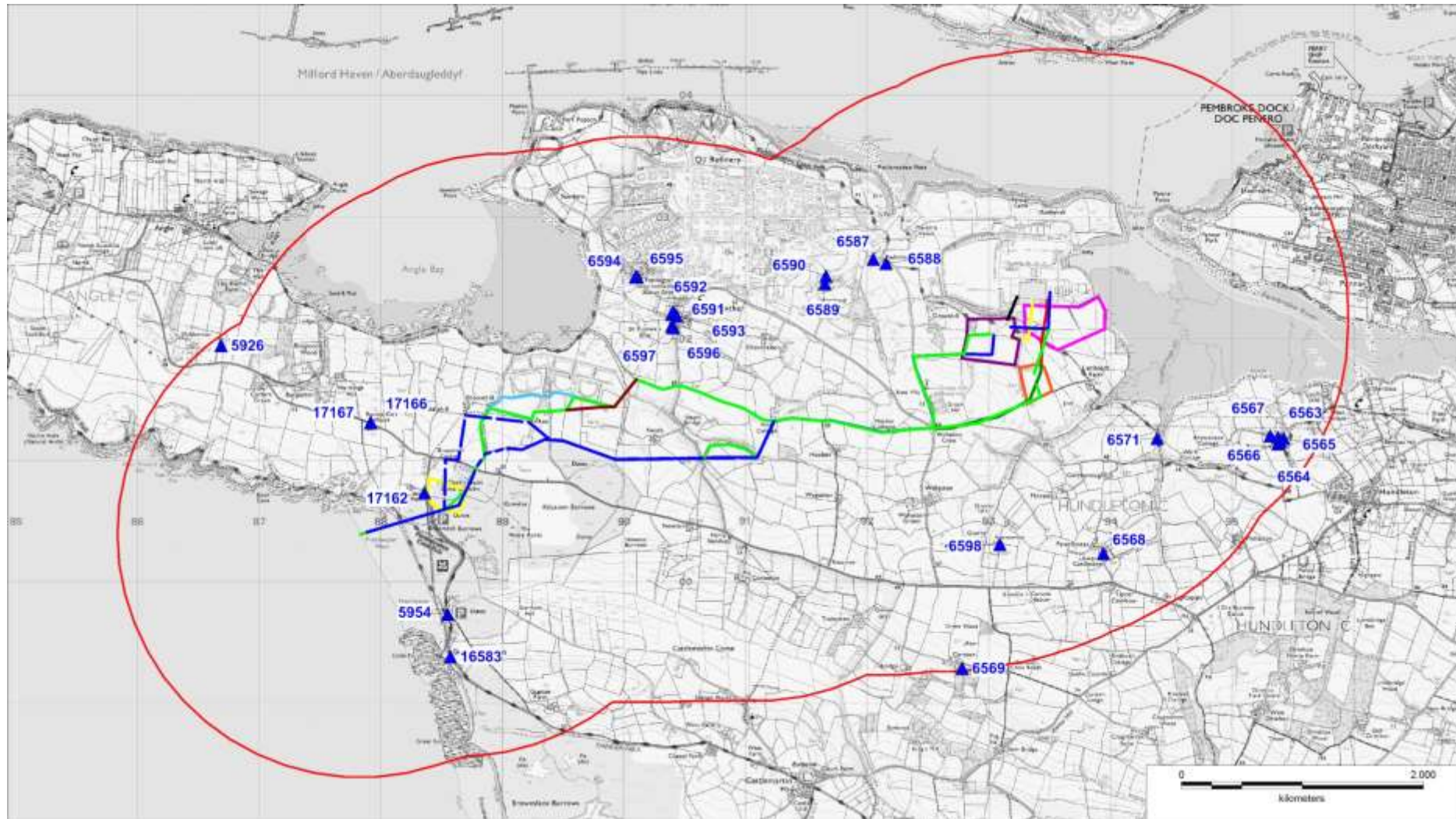
	Road (N Side), Brownslate			
6564	Range Of Outbuildings On S Side Of Entry Court At Brownslate Farm, Goldborough Road N Side, Brownsla	Hundleton	SN9539901158	Grade II
6565	Outbuilding At Ne Corner Of Front Yard At Brownslate Farm, Goldborough Road (N Side) Brownslate	Hundleton	SM9542501184	Grade II
6566	Cartshed To S Of Brownslate Farm, Goldborough Road (N Side), Brownslate	Hundleton	SM9538001138	Grade II
6567	Barn To W Of Brownslate Farmhouse, Goldborough Road (N Side), Brownslate	Hundleton	SM9531701203	Grade II
6568	Lower Castleton Farmhouse, B4320 (N Side), Castleton	Hundleton	SM9394500234	Grade II
6569	Corston House (Hotel), Corston	Hundleton	SR9278299291	Grade II
6571	Limekiln Close To S End Of Goldborough Pill, Goldborough Road (N Side), Goldborough	Hundleton	SM9438701183	Grade II
6588	Former National School Building, Pwllcrochan	Hundleton	SM9215602621	Grade II
6589	Stone Building (Now Used As A Barn) At Old Henllan, Pwllcrochan	Hundleton	SM9165302455	Grade II
6590	Garden Arch At Old Henllan, Pwllcrochan	Hundleton	SM9166102517	Grade II
6591	Church Of St.Decumanus, Rhoscrowther	Hundleton	SM9039502204	Grade II
6592	Shaft And Base Of Churchyard Cross To N Of Parish Church	Hundleton	SM9040602225	Grade II
6593	Church Hall, Rhoscrowther School	Hundleton	SM9043302192	Grade II
6595	Eastington Farmhouse Including Range Of Outbuildings To Se, Rhoscrowther	Hundleton	SM9011002508	Grade II
6596	Hilton Farmhouse, Rhoscrowther	Hundleton	SM9039502108	Grade II
6597	Range Of Outbuildings At Hilton Farm	Hundleton	SM9040702092	Grade II
6598	Sommerton Farmhouse, B4320 (N Side), Sommerton	Hundleton	SM9309200311	Grade II

**Table 3:** Listed Buildings within within 2km of the Greenlink Interconnector Project proposals



**Figure 3:** Scheduled Monuments within a 2km buffer zone around the Greenlink Interconnector Project proposals

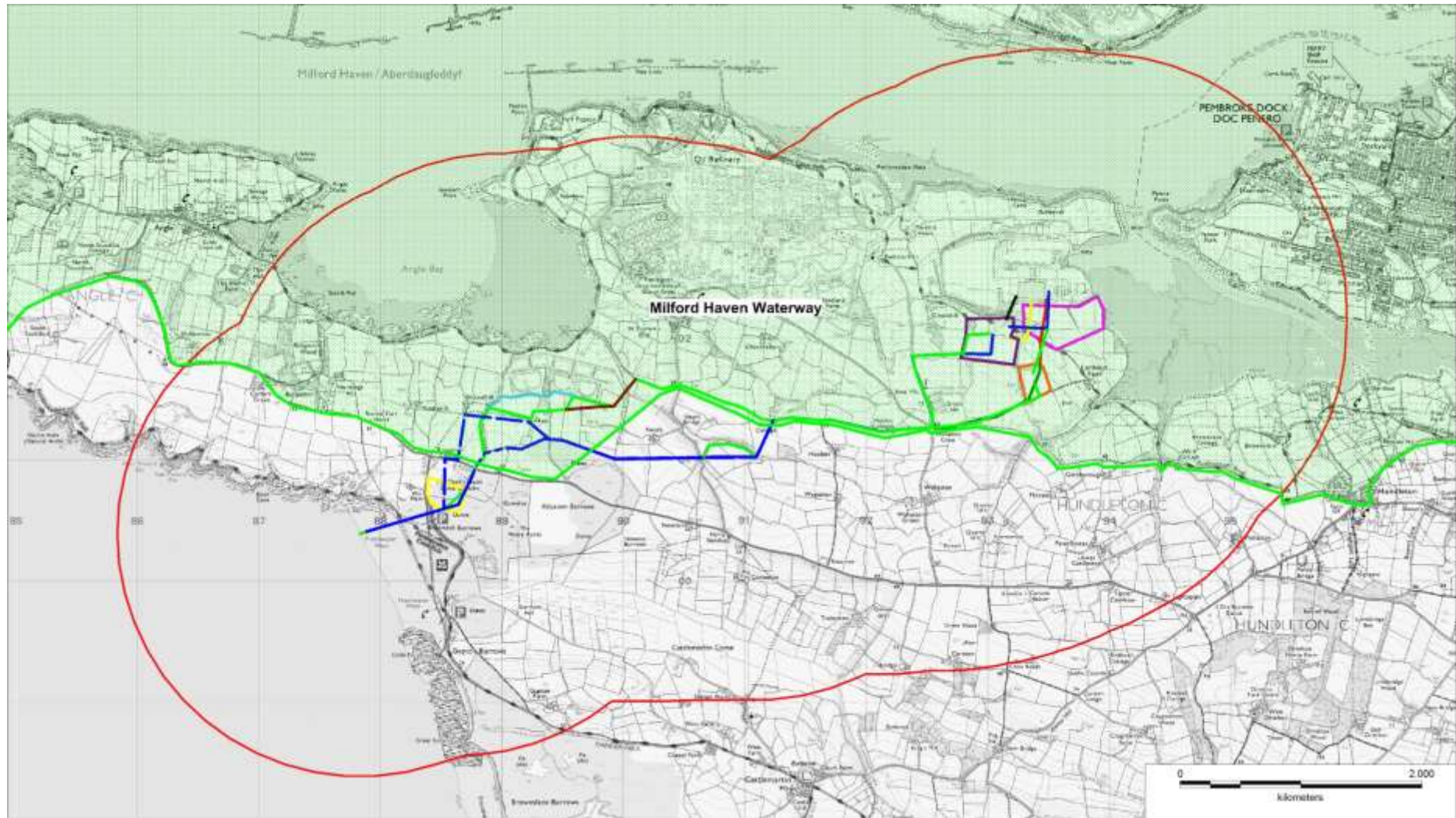
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**Figure 4:** Listed Buildings within a 2km buffer zone around the Greenlink Interconnector Project proposals

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**Figure 5:** Registered Landscape of Outstanding Historic Interest within the 2km buffer zone around the Greenlink Interconnector Project proposals

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### **4.3 Historic Landscape Areas, Conservation Areas and Historic Parks and Gardens**

4.3.1 The proposed development lies almost entirely within the registered Milford Haven Landscape of Outstanding Historic Interest (reference HLW (D) 3; Figure 5). This area covers the Milford Haven Waterway and the Cleddau rivers as far as Haverfordwest to the north and Pembroke through to Carew to the east.

4.3.2 The 1km Greenlink Interconnector Project proposals buffer zone also encompasses a number of non-registered Historic Landscape Character Areas (HLCA). The route lies almost entirely within the Rhoscrowther Historic Landscape Character Area (HLCA 341; Appendix II; Figure 6). It is summarised as containing the following:

*... a large agricultural historic landscape character area typified by large dispersed farms with regularly shaped fields. Hedges on banks are the most common boundary type, but towards the windswept western part of the area mortared stonewalls are present. There is a great variety in domestic building type, ranging in date from the medieval to the 20th century.*

4.3.3 The Converter Station Options 1 and 2 and associated HVDC cables also partially lie within the Pembroke Power Station Historic Landscape Character Area (HLCA 313; Appendix II; Figure 6).

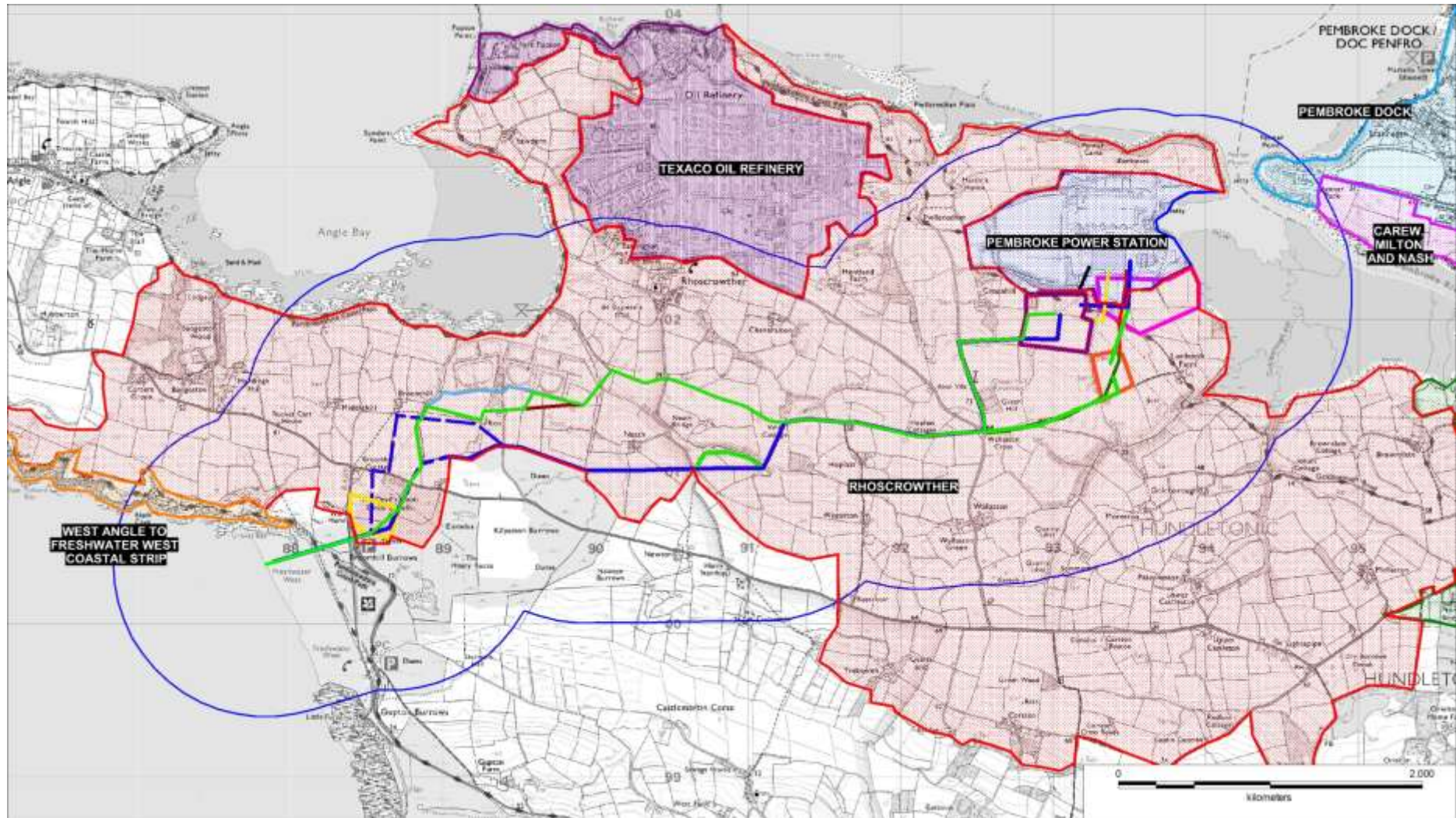
4.3.4 The other HLCA areas within the 1km buffer zone include part of the Texaco Oil Refinery (now Valero, HLCA 314); the West Angle to Freshwater West Coastal Strip (HLCA 352); and with Pembroke Dock (HLCA 306) and that of Carew, Milton and Nash (HLCA 338) just encroaching into the eastern part of the 1km buffer zone.

4.3.5 The Greenlink Interconnector Project proposals will obviously cause direct impacts to the Milford Haven Outstanding Landscape of Historic Interest, although the impacts will affect a very small part of its whole (with much of the impact being temporary and the remainder lying within the area of the Pembroke Power Station).

4.3.6 There are two Conservation Areas which just encroach into the 2km buffer zone around the Greenlink Interconnector Project proposals. The eastern edge of the Angle Conservation Area is present on the western side of the buffer zone and part of Pembroke Dock Conservation Area to the east. The distance from the development zone, intervening topography, vegetation and built environment is such that there is considered to be no intervisibility between them and the development area and they will not be considered further.

4.3.7 There are no Registered Historic Parks and Gardens within the 2km buffer zone





**Figure 6:** Historic Landscape Character Area within a 2km buffer zone around the Greenlink Interconnector Project proposals

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#### **4.4 Historic Environment Record and National Monuments Record Information and Archaeological and Historical Period Summaries**

##### ***Prehistoric*** (Palaeolithic, Mesolithic, Neolithic, Bronze Age and Iron Age)

- 4.4.1 Southern Pembrokeshire is known to contain archaeological resources relating to the Palaeolithic, although these are mostly stray finds or located in cave sites, protected from glaciers movements at the end of the last Ice Age. Although no known sites from that period are located within the search area, the potential remains for remains of Palaeolithic date to be present within the development area cannot be discounted.
- 4.4.2 The Dyfed Historic Environment Record contains references for a number of non-specific prehistoric sites (Table 4; Figure 7). A number of these refer to worked flint finds recovered from the area which cannot be better ascribed an archaeological period (PRNs 7753, 8466 and 8500). There are also eight burnt mounds recorded in the area (PRNs 3074, 3230, 3231, 3233, 3234, 3239 and 3254). Burnt mounds are typically of Bronze Age date and will be discussed below in the section regarding Bronze Age sites.
- 4.4.3 Numerous Mesolithic flint tools and objects have been found at the western end of the proposed development area (PRNs 503, 3083, 3084, 12223 and NPRN 524740; Table 5; Figure 8). Some of these are in very close proximity to both the HDD Site and cable route. Although Mesolithic activity has predominantly been found near to the coast or along water courses, recent archaeological investigations have started to demonstrate that flint working sites do exist further inland as found at Great Nash, near Llangwm in Pembrokeshire (Day and Meek, 2016). For this area of Pembrokeshire Mesolithic activity is confined to flint working sites or find scatters and there are no known settlement sites. It is very rare to find buried features of this period. One of the findspots relates to two shale beads which appeared identical to perforated shale beads found at the very important Mesolithic flint working site at Nab Head (PRN 3081).
- 4.4.4 There are several finds and earthworks associated with the Neolithic in the search area (Table 5; Figure 8), most notably the Devil's Quoit burial chamber (PRN 3071/NPRN 305358; SAM PE020) which lies in the field directly north of the HDD site and through which proposed HVDC cable routes will pass. There are numerous findspots of Neolithic date in the area, again mostly concentrated at the western end of the proposals, including a broken stone axe (PRN 3073), flint artefacts from Broomhill Burrows (PRNs 3073 and 3075) as well as a shell midden here (PRN 7592).
- 4.4.5 Further sites which could be Mesolithic or Neolithic in date are found throughout the search area (Table 5; Figure 8), including areas immediately adjacent to the HDD Site, including a flint working site and scatter (PRN's 3103 and 11383 respectively) and PRN's 3235, 3236, 3237, 3238, 3243, 3250 and 3255 within the 1km buffer zone around the Greenlink Interconnector Project proposals. This indicates quite a high potential for further finds of these dates to be encountered across the entire Greenlink Interconnector Project area.
- 4.4.6 There is a single Neolithic or Bronze Age site recorded on the Dyfed HER, PRN 7594 (Table 6), comprising a series of finds including stone tools, pottery and a midden found within Kilpaison Burrows southeast of the Devil's Quoit.
- 4.4.7 Bronze Age sites are well represented on the HER and NMR and include a number of general findspot sites around the Greenlink Interconnector Project area (PRNs 504, 3076 and 3085; Table 6, Figure 9). A Bronze Age

hoard site has also been recovered from Freshwater West beach (PRN 14393). There are numerous round barrows in the 1km buffer zone around the proposals area also, including the Scheduled Barrows at Wallaston (PE064; PRNs 3245, 3246, 3247, 3248, 47442; NPRNs 305283, 305284, 305285, 305286). There are also three round barrows within Kilpaison Burrows (PRN 3079, 11640, 11641, 11642, 47441; NPRN 305359). A pair of round barrows are also recorded near Lambeeth Farm at the eastern end of the area (PRNs 11694 and 48371). These represent burial mounds and indicate that Bronze Age settlement would have been present within the area, although such sites remain elusive. Three possible Bronze Age standing stone sites are also recorded in the 1km buffer zone (PRNs 4508, 7591 and 60432) although no standing stones survive and the records are either taken from antiquarian sources or documentary evidence. The eight burnt mound sites recorded in the 'Prehistoric' category (Table 4; Figure 7) are also most likely of Bronze Age date and add to the apparent wealth of Bronze Age sites in the vicinity of the Greenlink Interconnector Project area.

- 4.4.8 Iron Age sites are conversely less abundant within the 1km buffer zone (although it should be remembered that two further scheduled monuments of Iron Age date lie in the 2km buffer zone). The HER records three defended enclosures, the scheduled West Pennar Rath (PE262; PRN 3227; NPRN 305288); Lambeeth Promontory Fort (PRN 3244; NPRN 305288); an earthwork at Eastern Middle Park (PRN 33150); and a possible hillfort at Pennar Mouth (PRN 35093).
- 4.4.9 As noted in the HLC description for Rhoscrowther (Appendix 1) within which the proposed development area lies, the B4320 follows the line of a likely prehistoric trackway known as The Ridgeway road. The field systems that are laid out in respect of this route are therefore likely to be of some antiquity.

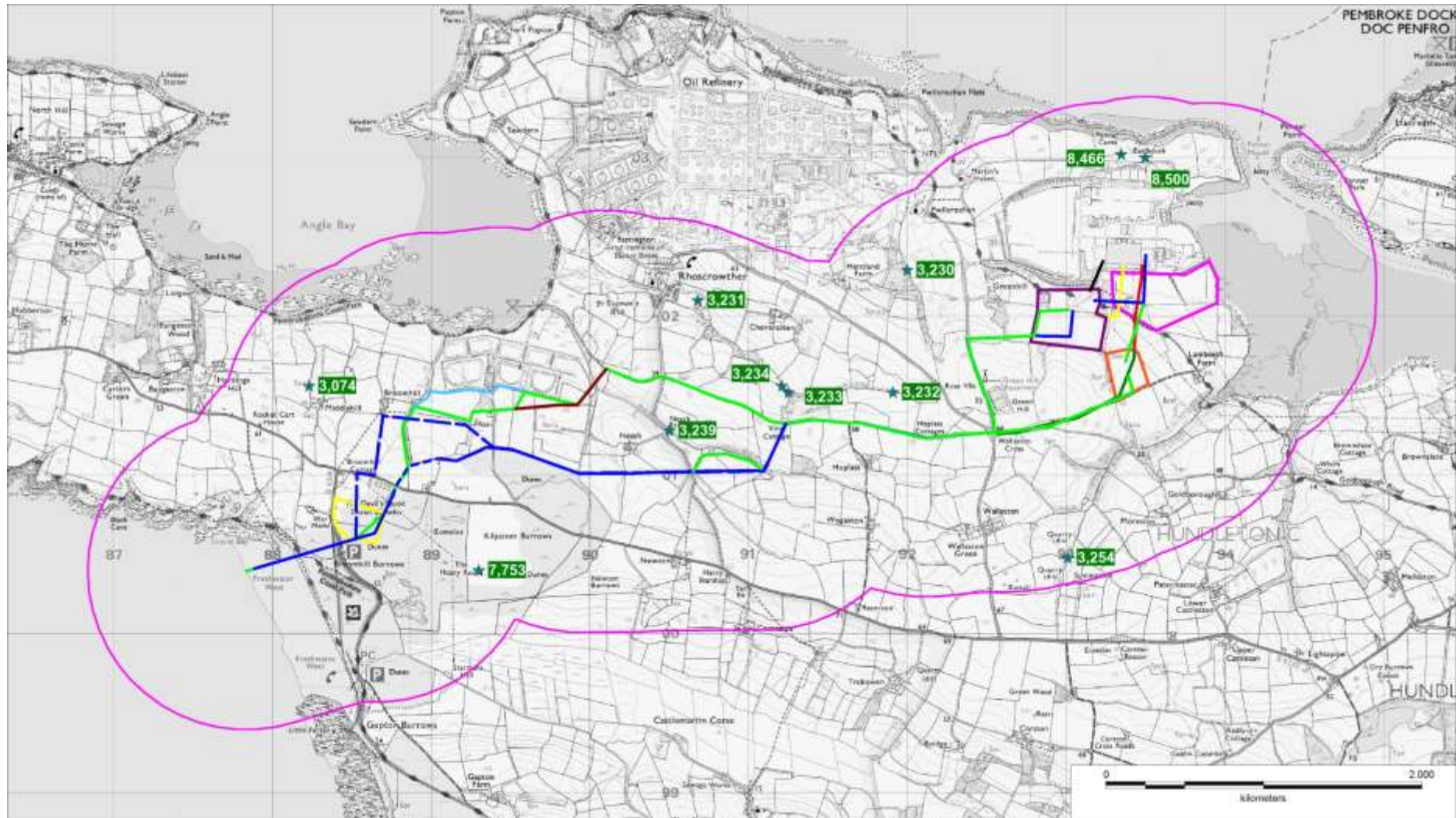
### ***Roman Period***

- 4.4.10 There are two HER records relating to the Roman period within the search area: a findspot from the Portable Antiquity Scheme (PAS) and another of pottery, glass and metalwork both in Kilpaison Burrows to the east of the Drilling Site (PRN 3086; NPRN 420312; Table 7; not illustrated).
- 4.4.11 During the previous assessment a possible Roman occupation site or Fort was identified from LiDAR data and a field visit, located in an area to the east of the Drilling Site (NGR SM 8950 0060). Further investigation demonstrated that it was unlikely the remains represented a Roman fort.
- 4.4.12 Further Lidar analysis by Gareth Roberts in 2018 has identified the possible alignment of a Roman road leading from an area close to the former oil storage tanks near Broomhill heading in a direction roughly following the road alignment via Neath Farm, Hoplass to Wallaston Cross and onwards towards Hundleton and Pembroke. Although it is very likely that there is far more Roman activity in this area than demonstrated by our existing knowledge, this potential Roman road alignment is very tentative as a number of oil pipelines have been inserted across this part of Pembrokeshire since the late 1930s and it is possible that the Lidar data is being misinterpreted.



PRN / NPRN	Site Name	Type	Summary Description	NGR	Period
3074	MIDDLEHILL	Burnt Mound	Burnt mounds are typically Bronze Age in date, associated with heating of water. Thought to be associated with cooking or feasting sites, brewing, industrial processes or sweat lodges – although this is still debated.	SM88230156	Prehistoric
3230	UPPER HENTLAND	Burnt Mound	As above	SM92000229	Prehistoric
3231	RHOSCROWTHER CHURCH	Burnt Mound	As above	SM90680210	Prehistoric
3232	HOPPLASS	Burnt Mound	As above	SM91910152	Prehistoric
3233	CHEVERALTON	Burnt Mound	As above	SM91250152	Prehistoric
3234	CHEVERALTON	Burnt Mound	As above	SM91210156	Prehistoric
3239	NEATH BRIDGE	Burnt Mound	As above	SM90500128	Prehistoric
3254	WALLASTON GREEN	Burnt Mound	As above	SM93010048	Prehistoric
7753	KILPAISON BURROWS	Findspot	Unclassified flint scrapers and a flint flake thought to have been recovered from close to flint scatter PRN 3077 and possibly associated with occupation site PRN 7594).	SM893004	Prehistoric
8466	WEST PENNAR RATH	Occupation Site	A collection of food debris, including cattle bones and oyster shells and sherd of possibly prehistoric pottery indicating a probable occupation site.	SM93350302	Prehistoric
8500	WEST PENNAR	Findspot	A retouched flint flake.	SM935030	Prehistoric

**Table 4:** Prehistoric sites recorded on the Historic Environment Record and National Monuments Record



**Figure 7:** Prehistoric sites recorded on the Historic Environment Record and National Monuments Record within a 1km buffer zone around the Greenlink Interconnector Project proposals

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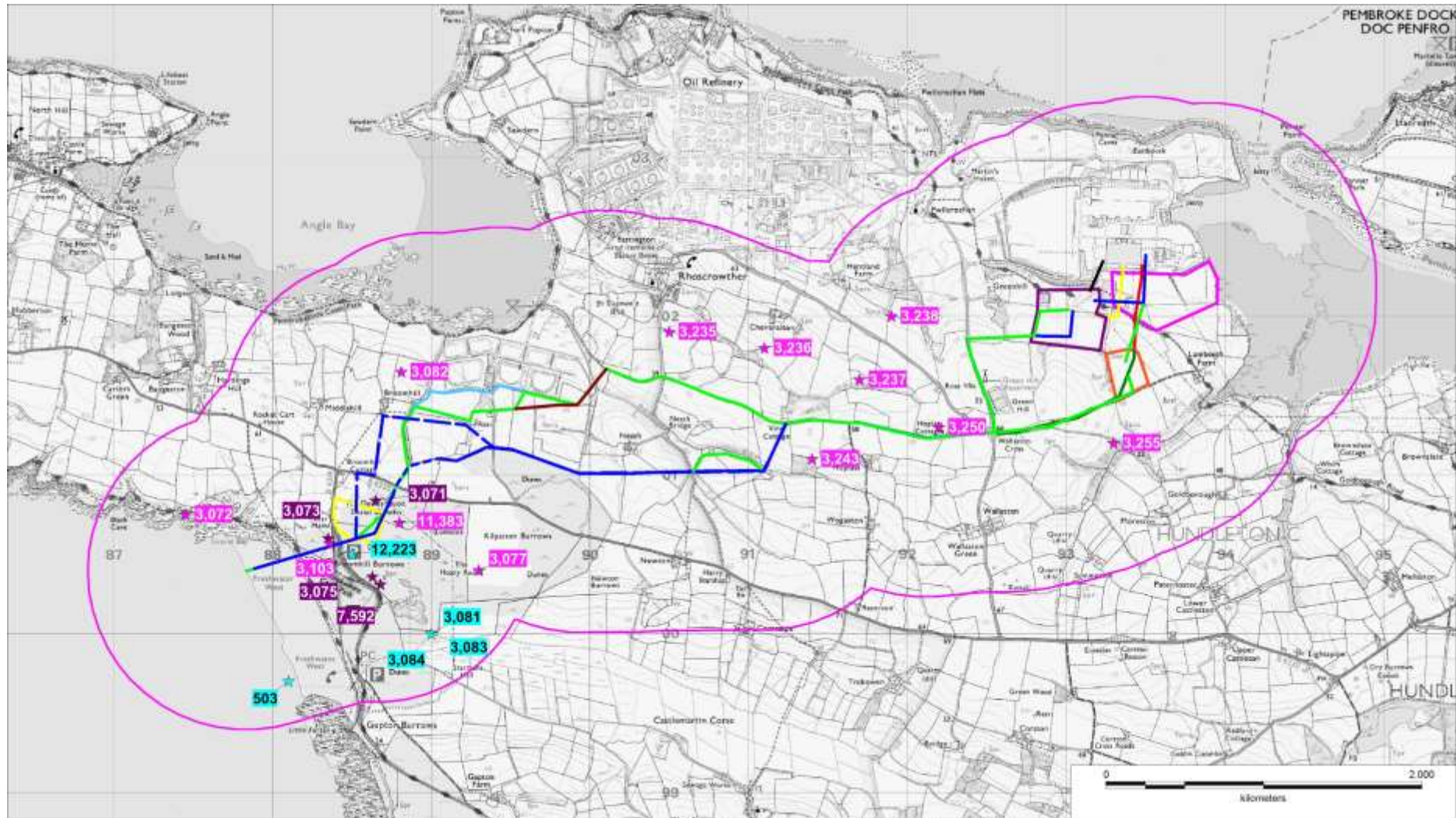
<b>PRN / NPRN</b>	<b>Site Name</b>	<b>Type</b>	<b>Summary Description</b>	<b>NGR</b>	<b>Period</b>
503	FRESHWATER WEST	Occupation Site	A flint tranchet axe, flint flakes and a flint implement recovered from a site eroding from below a peat exposure of Freshwater West beach. The peat above the site was sampled and a calibrated C14 date of 5250-4550 BC (Green 1998, 41) was obtained.	SR881997	Mesolithic
3081	KILPAISON BURROWS	Findspot	Two shale beads recovered from Kilpaison Burrows, which are identical to the shale beads that were apparently being manufactured at Nab Head. The exact findspot and the circumstances of recovery of these two beads are unknown.	SM8900	Mesolithic
3083	KILPAISON BURROWS	Findspot	A flint microlith, crescent type D24 (Horsham type).	SM8900	Mesolithic
3084	KILPAISON BURROWS	Lithic Scatter	A collection of flint scrapers, mostly thumb scrapers and convex scraper, and a broken sandstone disc recovered by A G Mathias at various times from Kilpaison Burrows.	SM8900	Mesolithic
12223	BROOMHILL BURROWS	Findspot	A flint core, 7 scrapers, a microlith, several implements and flakes collected from in Broomhill Burrows. This group appears to be part of a much larger collection donated to the Ashmolean Museum by P Grey.	SM885005	Mesolithic
524740	SUBMERGED FOREST, FRESHWATER WEST	Artefact Scatter, Submerged Forest	A flint tranchet axe, flint flakes and a flint implement have been recovered from a site eroding from below a peat exposure. The peat has been sampled and dated to a calibrated C14 date of 5250-4550 BC (Green 1998, 41). Charcoal was also recovered.	SR8834299870	Mesolithic
3071	DEVILS QUOIT; NEWTON CROMLECH	Chambered Tomb	A fine burial chamber, standing in the centre of a field of wind-blown sand burrows. The monument comprises of a large capstone, 2.75m x 2m, resting on a slab, 1m x 1.5m, with two further uprights measuring 1.5m x 1.5m, and 1m x 1.8m. NC 2003. Scheduled Monument PE020	SM88650084	Neolithic
3073	BROOMHILL BURROWS	Findspot	The butt end of a broken Neolithic axe of probable Group VIII type. The axe fragment may have been from a flint scatter 40m to the south (PRN 3103). NAP 2004.	SM88350060	Neolithic
3075	BROOMHILL BURROWS	Findspot	A collection of flints recovered during different collection episodes from a possible shell midden (PRN 7592). The flints included a whitened leaf-shaped arrowhead, a scraper	SM88630036	Neolithic

			combined with a pointed tool of unusual design recovered by A L Leach		
7592	BROOMHILL BURROWS	Midden		SM88680031	Neolithic
305358	DEVIL'S QUOIT; NEWTON CROMLECH	Chambered Tomb	A capstone, 3.7m by 2.4m and 0.5m thick, supported on the E by two upright orthostats 1.3m high, resting on a prostrate orthostat on the W. There is presently no trace of a mound, but a large, circular "agger" was noted in c.1810. A prostrate monolith.	SM88650084	Neolithic
3072	GRAVEL BAY	Flint Working Site	This record covers five flint scatters recorded by Wainwright as 'flint chipping floors' (Wainwright 1960-62, 50 Fig.1; 1963, plate x facing page 104) on the cliffs west of Freshwater West. Cores and over 20 struck flakes were recorded at each site.	SM87450075	Mesolithic, Neolithic
3077	KILPAISON BURROWS	Flint Working Site	A probable flint working site containing 2 cores, 4 scrapers, 2 choppers and a number of flint flakes. The exact findspot is uncertain, although A G O Mathias reported that there were 'two or three fine floors, where a considerable quantity of flint chippings were present.	SM893004	Mesolithic, Neolithic
3082	BROOMHILL	Flint Working Site	A flintworking site identified by Wainwright (1963, plate x facing p104). There are no details regarding any finds from this site.	SM88810165	Mesolithic, Neolithic
3103	LITTLE FURZENIP	Flint Working Site	Twenty one flints, including cores, primary flakes, flakes, a thumb scraper and a retouched blade, representing a flintworking site revealed in a wind-eroded hollow in blown sand dunes.	SM88360057	Mesolithic, Neolithic
3235	HILTON	Flint Working Site	This is one of several flintworking sites (see also PRNs 3229, 3236, 3237, 3238, 3243 and 3250) shown in the Rhoscrowther area on a distribution map of sites (Wainwright 1963, plate X opp p104). There are no details regarding any finds from this site.	SM905019	Mesolithic, Neolithic
3236	CHEVERALTON	Flint Working Site	This is one of several flintworking sites (see also PRNs 3229, 3235, 3237, 3238, 3243 and 3250) shown in the Rhoscrowther area on a distribution map of sites (Wainwright 1963, plate X opp p104). There are no details regarding any finds from this site.	SM911018	Mesolithic, Neolithic
3237	TILLEY COTTAGE	Flint Working Site	This is one of several flintworking sites (see also PRNs 3229, 3235, 3236, 3238, 3243 and 3250) shown in the Rhoscrowther area on a distribution map of sites (Wainwright 1963, plate X opp p104).	SM917016	Mesolithic, Neolithic

3238	TILLEY COTTAGE	Flint Working Site	This is one of several flintworking sites (see also PRNs 3229, 3235, 3236, 3237, 3243 and 3250) shown in the Rhoscrowther area on a distribution map of sites (Wainwright 1963, plate X opp p104). There are no details regarding any finds from this site.	SM919020	Mesolithic, Neolithic
3243	HOPCLASS	Flint Working Site	This is one of several flintworking sites (see also PRNs 3229, 3235, 3236, 3237, 3238 and 3250) shown in the Rhoscrowther area on a distribution map of sites (Wainwright 1963, plate X opp p104). There are no details regarding any finds from this site.	SM914011	Mesolithic, Neolithic
3250	HOPCLASS COTTAGE	Flint Working Site	This is one of several flintworking sites (see also PRNs 3229, 3235, 3236, 3237, 3238 and 3243) shown in the Rhoscrowther area on a distribution map of sites (Wainwright 1963, plate X opp p104). There are no details regarding any finds from this site.	SM922013	Mesolithic, Neolithic
3255	LAMBEETH	Flint Working Site	A flintworking site was shown in roughly in this location by Wainwright (1963, plate x opp p104), based on A L Leach's records.	SM933012	Mesolithic, Neolithic
11383	KILPAISON BURROWS	Flint Scatter	Five flint flakes recovered from Kilpaison Burrows. The findspot is uncertain.	SM888007	Mesolithic, Neolithic

**Table 5:** Mesolithic and Neolithic sites recorded on the Historic Environment Record and National Monuments Record





**Figure 8:** Mesolithic and Neolithic sites recorded on the Historic Environment Record and National Monuments Record within a 1km buffer zone around the Greenlink Interconnector Project proposals: Light blue- Mesolithic; Purple – Neolithic; Pink – Mesolithic /Neolithic

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<b>PRN / NPRN</b>	<b>Site Name</b>	<b>Type</b>	<b>Summary Description</b>	<b>NGR</b>	<b>Period</b>
7594	KILPAISON BURROWS	Occupation Site	A pounder stone, pottery sherds and sea shells, thought to be food debris, suggesting occupation activity. This site may be associated with flint working site (PRN 3077).	SM893004	Neolithic, Bronze Age
504	FRESHWATER WEST	Findspot	This record is confused and appears to combine two separate finds, a tanged and barbed arrowhead and a chert pebble - split for conversion into a core - from the Castlemartin Burrows area into a single record even though neither of them have an accurate location.	SR881997	Bronze Age
3076	KILPAISON BURROWS	Findspot	Sherds of pottery and an awl of Bronze Age date recovered from an area of 'shell strewn ground' (OS Card SM80 SE8), close to a flint working site containing Mesolithic and Neolithic material (PRN 3077). The pottery may be part of a cinerary urn.	SM893004	Bronze Age
3079	KILPAISON BURROWS	Round Barrow	A hollowed-out round barrow, 13m in diameter, with a standing stone 0.6m high near its centre. The site was excavated in 1925, when a primary cremation and five secondary cremations, all Bronze Age, were recovered. An extended inhumation of Dark Age date was also present.	SM8899900643	Bronze Age
3085	KILPAISON BURROWS	Findspot	Fragment of a cinerary urn of Bronze Age date recovered from an area containing flint material of the Mesolithic and Neolithic periods.	SM8900	Bronze Age
3245	WALLASTON ROUND BARROWS	Round Barrow	One of four round barrows at Wallaston, forming the round barrow cemetery PRN 47442. This is now a much spread mound, c.28m in diameter and 0.8m high. Scheduled Monument PE064	SM9255400417	Bronze Age
3246	WALLASTON ROUND BARROWS	Round Barrow	The best preserved of four round barrows at Wallaston that form the barrow cemetery PRN 47442. The mound is grass covered, 1.6m high and 35m in diameter and had an electric fence running across it when visited in 2003. Scheduled Monument PE 064A	SM9262700381	Bronze Age
3247	WALLASTON ROUND BARROWS	Round Barrow	The most easterly of a group of four barrow on Wallaston Farm forming barrow cemetery PRN 47442. The mound stands to a height of c.0.6m and is 25m in diameter.	SM9269900334	Bronze Age

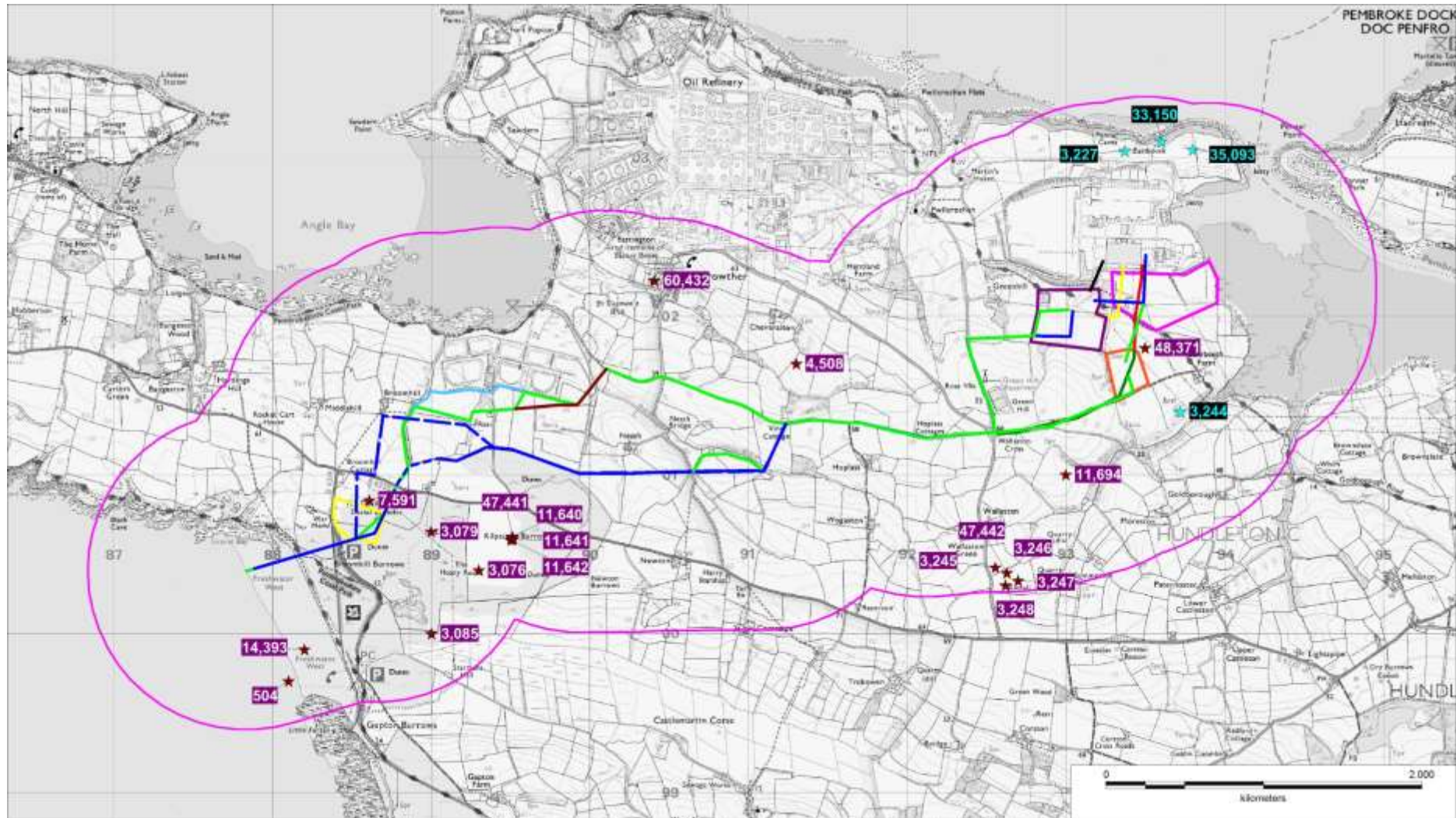
			Scheduled Monument PE 064B		
3248	WALLASTON ROUND BARROWS	Round Barrow	One of four round barrows on Wallaston Farm, forming barrow cemetery PRN 47442. This mound is c.0.6m high and 25m in diameter, spread by ploughing. NC 2003. Scheduled Monument PE 064C	SM9262000305	Bronze Age
4508	HORSE STONE PARK; HORSE STONE MOUNT	Standing Stone	A "Horse stone" field name taken from the parish tithe map, which may show that a standing stone formerly stood in the vicinity.	SM913017	Bronze Age
7591	BROOMHILL COTTAGES	Standing Stone	No standing stone apparent at the given grid reference.	SM88610084	Bronze Age
11640	KILPAISON BURROWS, ROUND BARROW	Round Barrow	A round barrow, 15m in diameter and 1.3m high. erosion on the west and south sides has exposed old red sandstone and carboniferous limestone boulders which make up the mound.	SM8951200611	Bronze Age
11641	KILPAISON BURROWS, ROUND BARROW	Round Barrow	A possible round barrow, represented by a semi-oval circular mound 12m by 7m, identifiable as a stonier area within a spread of small old red sandstone chips. at a field visit in 2005 the mound was difficult to identify due to the encroachment of the sand.	SM8951500594	Bronze Age
11642	KILPAISON BURROWS, ROUND BARROW	Round Barrow	A possible round barrow located in sand dunes and described as a slight swell in the ground surface with corresponding concentration of stone. The mound is now hidden due to the encroachment of the sand.	SM89500059	Bronze Age
11694	LAMBEETH FARM	Round Barrow	A possible burial mound recorded in the early 20th century. Its location is unknown.	SM9301	Bronze Age
14393	FRESHWATER WEST	Hoard	A hoard of 28 bronze objects found on Freshwater West beach in 1991. As well as 23 lumps of bronze the hoard contained fragments of 3 socketed axes of the South Welsh type, one broken tip of a Carp's tongue type sword.	SR882999	Bronze Age
47441	KILPAISON BURROWS	Round Barrow Cemetery	Group PRN for the three round barrows (PRNs 11640-42) in Kilpaison burrows.	SM8951300605	Bronze Age
47442	WALLASTON ROUND BARROWS	Round Barrow Cemetery	Group PRN for the four Wallaston round barrows (PRNs 3245-48). Scheduled Monument PE 064	SM9262700381	Bronze Age
48371	LAMBEETH FARM	Round Barrow Pair	Two round barrows were reportedly part-excavated here by WF Grimes in 1929, but no trace of them is now known.	SM93500180	Bronze Age



60432	SHAFT AND BASE OF CHURCHYARD CROSS TO N OF PARISH CHURCH	Standing Stone	Grade II listed standing stone considered to be a remnant of a churchyard cross. PRN 3242 is a duplicate record. See that record for a description of the monument. Grade II Listed Building	SM9040602225	Bronze Age
305359	KILPAISON BURROWS, BARROW	Round Barrow	A barrow, 13m in diameter and 0.8m high, exposed by a storm and excavated in 1925. A central cremation was placed in a pit dug into the old land surface, on either side of which were monoliths, one of which stands 0.8m high above the present.	SM88990063	Bronze Age
305283	WALLASTON ROUND BARROWS I	Round Barrow	A barrow, c.32m in diameter and 0.9m high in 1975, one three barrows (see also Nprn's305284, 305285) in a group of four which form a NW-SE alignment, the other (Nprn305286) lying to the S.	SM92550041	Bronze Age
305284	WALLASTON ROUND BARROWS II	Round Barrow	A barrow, c.35m in diameter and 1.7m high in 1975, one of a group of four (see Nprn305283).	SM92620037	Bronze Age
305285	WALLASTON ROUND BARROWS III	Round Barrow	A barrow, c.22m in diameter and 0.6m high in 1975, one of a group of four (see Nprn305283). (source Os495card; SM90SW23)	SM92690033	Bronze Age
305286	WALLASTON ROUND BARROWS IV	Round Barrow	Wallaston Round Barrow IV, measuring c.26m in diameter and 0.5m high in 1975, is one of a group of four (see Nprn305283).	SM92610030	Bronze Age
3227	WEST PENNAR RATH	Hillfort	Two lengths of banks define the west and east sides of a defended enclosure. The south and north sides have now gone - these, with the surviving banks, originally defined an oval enclosure c.70m-75m diameter. The surviving banks are c.45m long. Scheduled Monument PE 262	SM93370304	Iron Age
3244	LAMBEETH	Promontory Fort	Lambeeth is a small, semi-circular scarp-edge fort naturally well protected along its eastern side by a steep slope which falls away to a stream 25m below. The eastern side is defended by a curving bank and ditch. The bank was machine spread and soil dumped.	SM93720140	Iron Age

33150	EASTERN MIDDLE PARK	Bank (earthwork)		SM936031	Iron Age
35093	PENNAR MOUTH	Hillfort	P. Sambrook identified this hillfort from aerial photographs.	SM93800305	Iron Age
305287	LAMBEETH, ENCLOSURE	Defended Enclosure	A roughly "D" shaped enclosure, c.50m by 70m, resting on a natural scarp to the SE and defined elsewhere by ditches and by banks, except to to N. There is a possible entrance at the NE angle, where there is also a faint counterscarp bank.	SM93720140	Iron Age
305288	WEST PENNAR RATH	Defended Enclosure	Currently isolated lengths of earthwork indicate an possibly D-shaped, ditched & ramparted enclosure, at least 70m E-W by 45m, a section provided by a pipe trench indicates that the enclosure extended further to the S, possibly with an entrance on the S also.	SM93360301	Iron Age

**Table 6:** Bronze Age and Iron Age sites recorded on the Historic Environment Record and National Monuments Record



**Figure 9:** Bronze Age and Iron Age sites recorded on the Historic Environment Record and National Monuments Record within a 1km buffer zone around the Greenlink Interconnector Project proposals. Bronze Age – Purple; Iron Age – Light Blue

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<b>PRN / NPRN</b>	<b>Site Name</b>	<b>Type</b>	<b>Summary Description</b>	<b>NGR</b>	<b>Period</b>
3086	KILPAISON BURROWS	Occupation Site, Findspot	A 'third brass' of the late third century, together with Samian ware and Roman glass, were found on Kilpaison Burrows, Rhoscrowther. (Ordnance Survey 1964).	SM8900	Roman
420312	CHEVERALTON CONCENTRIC ANTENNA ENCLOSURE	Defended enclosure	Defended Enclosure	SM91490190	Roman

**Table 7:** Roman sites recorded on the Historic Environment Record and National Monuments Record

### ***Early Medieval***

- 4.4.13 There is known activity relating to this period in the form of a burial evidencing reuse of a Bronze Age barrow at Kilpaison Burrows (PRN 3080) and the potential for early medieval pre-cursors to the churches at both St Mary's Church, Pwllcrochan (PRN 30131) and at St Decuman's church at Rhoscrowther (PRN 46851) (Table 8; Figure 10). The existence of other as yet undiscovered Early Medieval sites within the region cannot be precluded.

### ***Medieval***

- 4.4.14 There are numerous known sites of medieval date within the 1km search area around the Greenlink Interconnector Project proposals area (Table 9; Figure 10), many associated with the existing settlements and farms all of which are likely to have become established during this period. The area of the proposed Greenlink Interconnector Project proposals would have been used for agricultural purposes throughout the medieval period as the routes and locations do not impact upon existing or known former settlement sites.
- 4.4.15 Records exist for settlements at Goldborough (PRN 10790), Moreston (PRN 10791), West Pennar (PRN 10793), Kilpaison (PRN 11459) and at Pwllcrochan (PRN 11472). The settlements at Eastington (PRN 7732), West Pennar (PRN 33151) and at Pwllcrochan (PRN 46850) are also recorded as being both medieval/post-medieval sites.
- 4.4.16 The churches of St Decuman's (PRN 3240 and NPRN 308950), St Marys Church (PRN 3223 and NPRN 300434) are both recorded as having medieval origins and in use into the post-medieval period. A Holy Well is also recorded at St Decuman's Church (PRN 3259) and also an inscribed stone (PRN 7933). A doubtful medieval Chapel site dedicated to St Mahoney is also recorded at Pwllcrochan (PRN 10514).
- 4.4.16 The sites of medieval crosses are recorded at Cross Park (PRNs 3078, 3309 and 3373), in Rhoscrowther churchyard (PRN 3242) and at Cross Combe Cross at West Popton (NPRN 305281). Some of these cross sites are assigned to the medieval/post-medieval category (PRNs 7931 and 7932).
- 4.4.17 House and cottage sites of medieval or medieval/Post-medieval date are also present including the fortified house site at Eastington (PE263; PRN 3224), including an associated Deer Park (RPN 7609) and two cottages at Venny Lake (PRNs 29582 and 29583). Mill sites of medieval/post-medieval date are also recorded with two within Angle parish (PRNs 34608 and 34629) and a third at Kilpaison (PRN 34630), the site of which was later built over by oil storage tanks. Field systems and drainage associated with medieval/post-medieval field systems have been recorded at Angle Bay (PRN 34609).

### ***Post-Medieval and Modern***

- 4.4.18 The majority of entries in the HER and NMR search results date to the post-medieval and modern periods. These are a mixture of site-types, mostly related to the development of agriculture and industry (including quarries and lime kilns), as well as public infrastructure sites, such as bridges (Table 10; Figure 11). The records also include the continued development of the villages and farms in the area, as well as continuation in use of the church sites.

- 4.4.19 A number of HER and NMR records within Table 10 actually relate to 20<sup>th</sup> century defensive structures. The NMR records numerous wreck sites within the area of Freshwater West bay, which lie outside of the remit of this desk-based assessment which is land based but are included in Table 10 for completeness.
- 4.4.20 The post-medieval records are not discussed in detail as the existing layout of land and land use is very much the same except where modern sites are present (military and industrial sites). The area would have been utilized for agricultural land throughout this period, as is confirmed in the historic mapping section of the report below.
- 4.4.21 Modern sites recorded on the HER and NMR relate to a mixture of military and defence structures and events, including an aircraft crash site (PRN 105259), as well as industrial sites and sea defences. The 1km buffer zone around the Greenlink Interconnector Project proposal encompasses part of the Royal Engineering site at Pennar Park which accounts for the majority of the records.
- 4.4.22 The modern records include the Broomhill Burrows gun emplacement overlooking Freshwater West (PE494; PRN 14355) and associated areas of hard standing (PRN 55454) within which the HDD is proposed. The records also include the former searchlight batteries at Pwllcrochan (PRN 26242) and Pennar Cants (PRN 26243) and the former anti-aircraft battery at West Pennar (PRN 26244).

PRN / NPRN	Site Name	Type	Summary Description	NGR	Period
3080	KILPAISON BURROWS	Round Barrow Reuse	Early medieval B site, ie. medium-probability early medieval origins. Bronze age round barrow, excavated by Cyril Fox in 1926 when a single secondary, but undated long-cist (stone-lined) grave was revealed. The barrow still survives as an above-ground feature	SM8899900643	Early Medieval
30131	PWLLCROCHAN PARISH CHURCH; ST MARY'S	Churchyard	Early medieval D site, ie. possible early medieval origins. Churchyard occupied by the medieval Pwllcrochan parish church (PRN 3223). The polygonal churchyard appears to have been derived from a sub-circular shape. It contains a well.	SM92070267	Early Medieval
46851	RHOSCROWDDER PARISH CHURCH; ST DECUMAN'S; LLANDDEGYMAN; EGLWYS DEGEMAN	Churchyard, Bishop House	Early medieval A site, ie. high-probability early medieval origins. Suboval churchyard occupied by the medieval Rhoscrowdder parish church (PRN 3240), which is the site of a 'bishop-house' mentioned in the 9th century, possibly recording an earlier, 6 <sup>th</sup> century structure.	SM90390220	Early Medieval

**Table 8:** Early Medieval sites recorded on the Historic Environment Record and National Monuments Record

PRN / NPRN	Site Name	Type	Summary Description	NGR	Period
3078	CROSS PARK	Cross		SM905017	Medieval
3224	EASTINGTON MANOR HOUSE; ESTINGTON MANOR	Fortified House	Historic home. Scheduled Monument PE 263	SM90100250	Medieval
3242	RHOSCROWDDER CHURCHYARD	Churchyard Cross	An upright monolithic slab measuring 1.34m high by 0.43m wide by 0.2m thick set in a rectangular socket stone and standing on a nearly square single stepped (c. 0.20m high) stone slab platform. Grade II listed	SM90400221	Medieval
3259	ST DECUMAN'S WELL; ST AGNES' WELL	Holy Well	A well dedicated to Saint Decuman, Saint Degman or Saint Degyman, located in the vicinity of Rhoscrowther Church. It was originally arched over but this had gone by at least 1925. It was recorded in 1965 to comprise the remains of a well chamber	SM90170209	Medieval

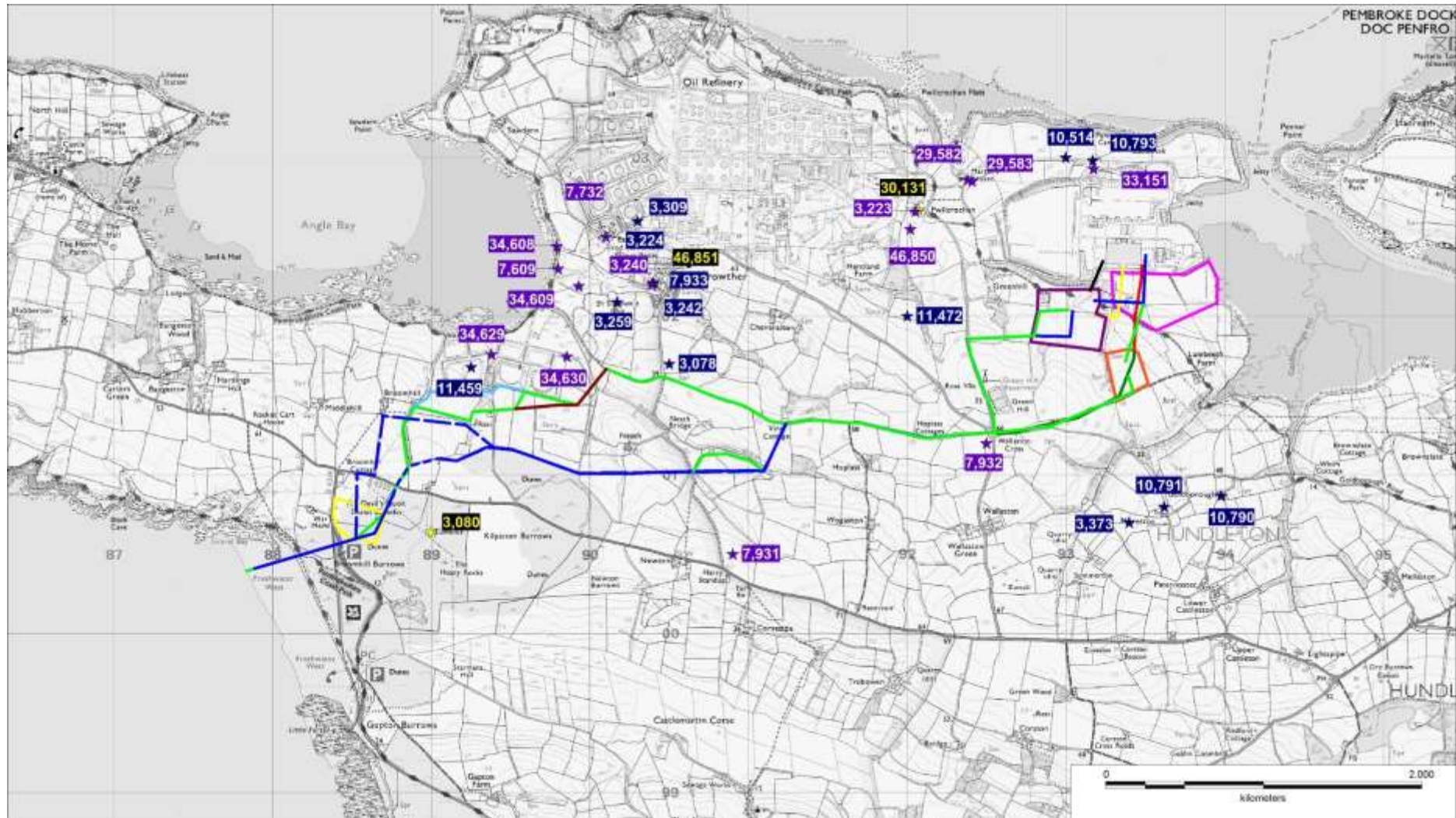
3309	CROSS PARK	Cross		SM903026	Medieval
3373	CROSS PARK	Cross		SM934007	Medieval
7933	RHOSCROWDDER PARISH CHURCH; ST DECUMAN'S CHURCH	Inscribed Stone	The RCAHM (in 1923) noted the presence of 'an inscribed stone built into the outside wall of St. Decuman's church', close to the southeast gateway. A visit to the site in 1975 by the Ordnance Survey failed to locate the stone.	SM90390220	Medieval
10514	PWLL CROCHAN; ST MAHONEY	Chapel	Doubtful chapel site, referred to only in a passage by Richard Fenton, of 1811 'there is a tradition of a chapel at the eastern extremity of (Pwllcrochan) parish, called St Mahoney, the Irish for St Matthew' (Fenton 1903, 218).	SM930030	Medieval
10790	GOLDBOROUGH	Settlement		SM93980087	Medieval
10791	MORYSTON; MORESTON	Settlement		SM93620080	Medieval
10793	WEST PENNAR	Settlement		SM93170298	Medieval
11459	KILPASTON; KILPAISON	Dwelling	Settlement identified by Saxton on his Pembrokeshire Map of 1578.	SM89250168	Medieval
11472	PWLLCROCHAN; PETERACHON	Settlement		SM9202	Medieval
308950	ST DECUMANUS'S CHURCH; ST DECUMAN'S, RHOSCROWTHER	Church	Medieval church, possibly C13 nave and chancel, with C14 SE chapel, tower, and N transept. Restored 1852, 1869-70, and 1910. Of rubble stone with slate roofs. N porch contains fine square C12 or c13 scalloped font from Pwllcrochan	SM904022	Medieval
305281	CROSS COMBE CROSS, WEST POPTON	Cross	A 14th-15th century octagonal cross-shaft, said to have been discovered in a field called "Cross Comb" c.1907 (SM907035), apparently having at some time served as a gatepost, and removed to its present location (in the refinery office car park?)	SM91000236	Medieval
300434	ST MARY'S CHURCH, PWLLCROCHAN	Church	An inscribed stone in the north chapel records the erection of the church in 1342, the chancel was rebuilt in 15th century. Wallpaintings; undated notes by A.J. Parkinson refer to a painted stencilling dado	SM92050266	Medieval
3223	PWLLCROCHAN PARISH	Church	Medieval parish church comprising chancel, nave, N transept with skew-passage, S transept with tower and	SM92050266	Medieval, Post-



	CHURCH; ST MARY'S		spire, and N and S porches. The earliest fabric is possibly dateable, from an inscription, to the 14th century (RCAHM 1925, 301). Little 19th century		Medieval
3240	RHOSCROWDDER PARISH CHURCH; ST DECUMAN'S; LLANDDEGYMAN; EGLWYS DEGEMAN	Church	Medieval parish church, comprising chancel, nave, south chapel, north transept with skew-passage, south transept and tower, north porch and a chapel south of the nave. There has been little 19th century restoration. It is now redundant, but still in Church in Wales hands.	SM90390220	Medieval, Post- Medieval
7609	RHOSCROWTHER	Deer Park	A deer park believed to have been attached to Easington Castle, a medieval tower house (PRN 3224). The park is located on the west facing shoreline overlooking Milford Haven. Easington Castle was built in the 14th century for the Perrott family	SM898023	Medieval, Post- Medieval
7732	EASTINGTON	Village		SM901025	Medieval, Post- Medieval
7931	CROSS PARK	Cross		SM909005	Medieval, Post- Medieval
7932	WALLASTON CROSS	Cross		SM925012	Medieval, Post- Medieval
29582	VENNY-LAKE	Cottage	The site of this house first recorded on a map in 1777 is now a modern bungalow with modern out buildings. The site of the house recorded in 1777 seems to have been disused by 1908 Venny-Lake is first recorded in 1461 - BG Charles.	SM92380286	Medieval, Post- Medieval
29583	VENNY-LAKE	Cottage	Site first recorded in 1461. In 1777 a house is marked by Thomas Lewis. The house is recorded on the 1908 OS map. Today no trace of walls survive but a substantial earthwork mound in woodland marks the site of this dwelling.	SM92410285	Medieval, Post- Medieval
33151	WEST PENNAR FARMSTEAD	Farmstead	Partial remains of some ivy covered buildings are visible on the site of this old farmstead, but the woodland and undergrowth was dense at the time of the visit making access impossible. The farmyard complex may be on the	SM9317402930	Medieval, Post- Medieval

			site of a mediaeval settlement		
34608	ANGLE BAY	Mill	Eastington mill identified from 1st Edition OS. Site destroyed by modern service road.	SM89790244	Medieval, Post-Medieval
34609	ANGLE BAY	Drainage System	Relict field pattern, canalised drainage identified from 1st Edition OS. The area is now very overgrown with scrub and the field pattern was not seen.	SM89930219	Medieval, Post-Medieval
34629	ANGLE BAY	Mill	Corn mill identified from 1st Edition OS. There was no sign of this mill, the area has been redeveloped with oil storage tanks.	SM89380176	Medieval, Post-Medieval
34630	KILPAISON MILL	Mill	Kilpaison mill identified from 1st Edition OS. There was no sign of this mill, the area has been redeveloped with oil storage tanks.	SM8985401746	Medieval, Post-Medieval
46850	PWLLCROCHAN	Deserted Settlement	Deserted settlement site, possibly a DMV, represented by earthworks south of Pwllcrochan parish church. A trackway/hollow-way, with a triangle or green, and between one and 5 buildings are visible.	SM92020255	Medieval, Post-Medieval

**Table 9:** Medieval and Medieval/Post-Medieval sites recorded on the Historic Environment Record and National Monuments Record



**Figure 10:** Early Medieval (yellow), Medieval (purple) and Medieval/Post-Medieval (dark blue) sites recorded on the Historic Environment Record and National Monuments Record within a 1km buffer zone around the Greenlink Interconnector Project proposals.

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<b>PRN / NPRN</b>	<b>Site Name</b>	<b>Type</b>	<b>Summary Description</b>	<b>NGR</b>	<b>Period</b>
35054	GOLDBOROUGH PILL	Quarry	Small quarry, approximately 15m by 5m and 3m deep, located on the coastal slopes within dense woodland. The quarry is overgrown but clear of rubbish. The quarry lies just off of the Pembrokeshire Coast Path and together with the nearby limekiln (PRN 34612)	SM94390122	Post Medieval
4675	GUPTON BURROWS BRIDGE	Bridge	A single arched stone bridge. 30m downstream, a stone-built arched culvert directs the stream beneath the sandy storm beach/dunes. Grade II listed	SR88559974	Post- medieval
4676	FRESHWATER WEST	Seaweed Drying Shed		SR885998	Post- medieval
7222	HILTON FARMHOUSE	Farmhouse	Occupied farmhouse building. Grade II listed	SM9039502108	Post- medieval
7733	GREENHILL	Clearance Cairn	Nothing was noted of archaeological value for PFRS at this location during fieldwork in February 2003.	SM92000233	Post- medieval
10092	WALLASTON METHODIST CHAPEL	Chapel		SM92390066	Post- medieval
15916	STARMANS HALL	Dwelling		SR89139972	Post- medieval
15923		Kiln	Situated against a north-facing slope on the south-east edge of angle bay. Constructed with red sandstone blocks and bonded with lime mortar. The kiln almost totally destroyed, only portion crucible remains.	SM8944601881	Post- medieval
15979		Mill Pond	Mill pond recorded on the 1875 1st edition Ordnance Survey map, associated with Kilpaison corn mill (PRN 34629) Still shown on subsequent maps, although the mill buildings have now been destroyed by the installation of oil storage tanks	SM894017	Post- medieval
17876		School	A limestone built single room school with a date stone of 1861.	SM92160262	Post- medieval
17877	GREENHILL	Mill, Corn Mill	The corn mill near Greenhill Farm is recorded on the 1875 1st edition Ordnance Survey map and is still depicted on the 1908 2nd ed. OS. Modern maps show the site to be	SM92590225	Post- medieval

			ruinous		
17878	NEATH BRIDGE	Bridge	A post medieval footbridge. It is shown on the 1964 Ordnance Survey map and the First (1891) and Second (1908) Edition Ordnance Survey maps.	SM90480126	Post-medieval
17879		Blacksmiths Workshop		SM92350126	Post-medieval
17938		Rectory		SM90360227	Post-medieval
17947		Rectory	Shown on the tithe map of 1839 now demolished apart from a few outbuildings in poor condition.	SM9213802739	Post-medieval
21676	WALLASTON GREEN	Cottage	Ruined cottage described in 1985. Possibility of future renovation mentioned at that time. Current condition unknown	SM92400060	Post-medieval
24120	GREENHILL	Dwelling	Record of a post-mediaeval dwelling.	SM9202	Post-medieval
24445	PENNAR BARRACKS; ROYAL ENGINEERS BARRACKS	Barracks	1903 Harbour Defence Submarine Mining Depot. Complex of workshops offices stores married quarters barracks and other buildings.	SM94350304	Post-medieval
25439	HUNDLETON	Blacksmiths Workshop		SM93610064	Post-medieval
28005	PWLLCROCHAN	Settlement		SM9202	Post-medieval
28007	RHOSCROWTHER	Settlement		SM9002	Post-medieval
29575	PWLLCROCHAN	Cottage	No trace of this cottage recorded in 1824 now survives. Site presumably destroyed by the world war two installations 26242. The cottage is not recorded on the tithe map of 1839.	SM9211602646	Post-medieval
29576	PWLLCROCHAN	Cottage	Possibly a cottage here in 1824 alongside a road. Both the road and the cottage no longer exist and are not shown on the tithe map of 1839.	SM92050257	Post-medieval
29577	SCHOOL COTTAGE	Cottage	A building is recorded here on the tithe map of 1839. There are presently two cottages here - semidetached.	SM92130264	Post-



			Both are now extensively modernised the window openings changed and completely rendered. The cottage nearest the school is disused.		medieval
29581	CLERK'S HOUSE	Cottage	This dwelling is now a ruin though the walls still stand to their full height. A dwelling was first recorded here in 1839 and was still lived in 1908.	SM9233702807	Post-medieval
29584	VENNY-LAKE	Cottage	A cottage is first marked here in 1839 it is not recorded in the 1777 map. It is still present in 1908. No trace of the cottage now survives.	SM92360279	Post-medieval
30147	VENNY LAKE	Cottage	Site of ruined cottage.	SM92380283	Post-medieval
30150	PEMBROKE POWER STATION	Findspot	Find spot for a scatter of pottery and glass. The pottery consists of North Devon tempered wares sgraffiti wares Staffordshire slipwares and other coarse wares. No building material was found. Finds were not retained.	SM92940294	Post-medieval
33153	PENNAR GUT	Quarry	A deeply cut and narrow feature which seems to be a branch off the old Martin's Haven - Pembroke road. Seems to have lost its context as it now runs northwards for 100m and peters out in a field. Shown on 1839 parish tithe map. Its unusually deep cutting	SM933022	Post-medieval
33154	PENNAR MOUTH	Garden, Farmstead	A series of small fields identified as gardens on an 1824 sales prospectus. They were located at the head of a small inlet off the main Pennar Gut, close to holloway PRn33153. They may be paddocks associated with an early farmstead,	SM932021	Post-medieval
34610	ANGLE BAY	Saw Pit	Water powered saw pits identified from 1st Edition OS. Site destroyed.	SM8941001856	Post-medieval
34612	GOLDBOROUGH PILL, LIME KILN	Lime Kiln	A well preserved lime kiln, approximately 9m square in plan, projecting out from the west bank of Goldborough Pill. It has opposing draw holes partly supported by iron rails and the hinges for doors over the draw holes still survive. Grade II listed	SM94400118	Post-medieval
34613	GOLDBOROUGH PILL	Building	A rectangular building at the top of the coastal slope was identified from the OS first edition (1881) and subsequent examination of the tithe map for Monkton parish (1839) marks the building as a cottage and garden.	SM94340128	Post-medieval

34614	LAMBEETH MILL; COCHESTON PILL	Mill,Cottage	Lambeeth Mill is recorded on the 1875 1st edition and 1908 2nd edition Ordnance Survey maps. The building is shown to be ruinous on modern maps (M.Ings, 2014)	SM9383801439	Post-medieval
34615	COCHESTON PILL	Lime Kiln	Lime kiln was identified from 1st Edition OS. Not seen the site is within dense scrub.	SM9412001886	Post-medieval
34618	PWLLCROCHAN	Lime Kiln	Lime kiln was identified from 1st Edition OS. Completely destroyed by the installation of the oil refinery.	SM93150233	Post-medieval
35006	ANGLE BAY	Agricultural Clearance	A layer of rounded stones and some brick and eighteenth and nineteenth century pottery eroding out of a low cliff. Field clearance from the arable/pasture fields above.	SM88560209	Post-medieval
35056	COCHESTON PILL	Bridge	Small single arched stone bridge. The bridge is used for the coastal path. The bridge is probably associated with the nearby mill, PRN 34614.	SM93860140	Post-medieval
39353	GOLDBOROUGH FARM	Farm	Goldborough has been part of Brownslate since the 1930s. The name Goldborough was first used in 1291 and it may derive from the Old English meaning "Burh, or fort by which the marsh marigold (or some other gold coloured flowers) grow (Charles 1992,691).	SM93980086	Post-medieval
39354	GOLDBOROUGH FARM	Pigsty	Stone-built and whitewashed pigsty with a gabled roof. The building has been altered recently by the addition of a roof over the yard area. It is now used as a chicken coop. This building may have been two separate buildings.	SM93980087	Post-medieval
39355	GOLDBOROUGH FARM	Farmhouse	L-shaped house consisting of a main north-south range with a smaller wing extending west from its south end. The house is externally rendered and has a slate gable roof. All the openings are square headed. The house does not seem to appear on the tithe map	SM94010087	Post-medieval
39356	GOLDBOROUGH FARM	Building	Rectangular range of buildings forming the west side of the yard. The range consists of two buildings, a cow house forms the southern end and a stable with first floor storage occupies the north end. Both buildings are stone-built with slate gable roofs	SM93970087	Post-medieval
39357	GOLDBOROUGH FARM	Cart Shed	Ruinous stone-built cart shed. The roof was removed recently during renovation works, but the east gable was blown over and the building has been derelict since. The	SM9398400846	Post-medieval

			west gable survives to full height. There are two cart bays with large squared oak timbers		
39368	GOLDBOROUGH FARM	Pump House	Small pump house and a series of tanks and small holding ponds.	SM94300105	Post-medieval
44751	MIDDLE HILL	Quarry	Identified from OS 1st ed mapping	SM8849701649	Post-medieval
59465	WAR MEMORIAL	War Memorial	Grade II listed war memorial	SM8836000734	Post-medieval
59469	ROCKET CART HOUSE	Rescue Team Cart House	Grade II listed rescue team cart house	SM8791701315	Post-medieval
59470	LOOKOUT TOWER	Lookout Tower	Grade II listed lookout tower	SM8792001310	Post-medieval
59755	FORMER NATIONAL SCHOOL BUILDING,	School	Grade II Listed School	SM9215202616	Post-medieval
60022	CORSE BRIDGE AND ATTACHED WALLED CHANNEL	Bridge	Grade II listed bridge	SR8855199736	Post-medieval
60413	LIMEKILN CLOSE TO S END OF GOLDBOROUGH PILL	Limekiln	Grade II listed limekiln Goldborough Road (N Side), Goldborough	SM9438701183	Post-medieval
60427	FORMER CHURCH OF SAINT MARY,	Church	Grade II* listed church Pwllcrochan	SM9205102657	Post-medieval
60428	FORMER NATIONAL SCHOOL BUILDING,	Schoolroom	Grade II listed schoolroom Pwllcrochan	SM9215602621	Post-medieval
60429	STONE BUILDING (NOW USED AS A BARN)	House	Grade II listed house at Old Henllan, Pwllcrochan	SM9165302455	Post-medieval
60430	GARDEN ARCH	Garden Arch	Grade II listed garden arch at Old Henllan, Pwllcrochan	SM9166102517	Post-medieval
60431	CHURCH OF ST. DECUMANUS	Church	Grade I listed church Rhoscrowther	SM9039502204	Post-medieval
60433	CHURCH HALL, SCHOOL	National	Grade II listed national Church Hall Rhoscrowther	SM9043302192	Post-medieval

60434	THE TOWER AT EASTINGTON MANOR HOUSE	Towerhouse	Grade I listed towerhouse	SM9009702512	Post-medieval
60435	EASTINGTON FARMHOUSE	Farmhouse	Grade II listed farmhouse including range of outbuildings to SE, Rhoscrowther	SM9011002508	Post-medieval
60436	RANGE OF OUTBUILDINGS	Farm Buildings	Grade II listed farm buildings at Hilton Farm	SM9040702092	Post-medieval
35008	ANGLE BAY	Sea Defences	Eight substantial timbers leaning slightly towards the shore, set in a curve, parallel to the shore, approximately 15m out from the sea wall PRN 35007.	SM89510195	Post-medieval, Modern
506961	LIME KILN, LAMBEETH	Lime Kiln	A lime kiln is shown at the southeastern corner of a field containing two quarries (NPRN 506960). A track curves around the limekiln down into the quarry to the foreshore (NPRN 506962). Modern mapping notes a lime kiln disused and modern aerial photography	SM9411001886	Post Medieval
506963	CROW POOL	Anchorage	Lewis Morris' early chart of Milford shows an anchorage and is confirmed by the placename 'pool' and by a closely-spaced sounding of 2 3/4 fathoms on later Admiralty charts. Admiralty Sailing Directions dating to 1884 notes '	SM9425302681	Post Medieval
524952	WHARF, OLD QUARRY AND LIMEKILN, PEMBROKE POWER STATION	Lime Kiln, Quarry, Wharf	No obliterated by developed for the Pembroke Power Station, OS 1st edition mapping shows a small wharf with a river frontage of 8-9m. The wharf served a limekiln (SS93150234) now under tarmac which utilised stone from the adjacent small quarry	SM9319002334	Post Medieval
544028	OYSTER BEDS, RIVER PENNAR	Oyster Beds	In 1595, George Owen wrote 'Pennar Mowth is the creeke that cometh up to Pembroke town, this being the greatest and largest creeke in all Milford, it passeth up into the land 3 myles.	SM9439402449	Post Medieval
515098	QUARRY, MIDDLE HILL FARM	Quarry	A quarry is shown on OS 1st edition 25in mapping to the east of a trackway leading from the foreshore and lime kiln (NPRN 515099) inland to Middle Hill. Modern mapping and aerial photograph reveals that the quarry has been infilled	SM88220190	Post Medieval
515097	LIME KILN, MIDDLE HILL FARM	Lime Kiln	A small circular building is shown on an historic chart and as an 'Old Limekiln' on OS 1st edition 25in mapping. The kiln is to the west of a trackway leading inland to Middle	SM88210199	Post Medieval

			Hill past an 'Old Quarry' (NPRN 515098).		
524954	LIME KILN, MIDDLE FARM	Lime Kiln	A round limekiln is shown on OS 1st edition 25in associated with a small quarry scoop at SS88220190. Modern aerial photography shows the site of the kiln under tree cover and suggests that the scoop has been infilled.	SM8821701991	Post Medieval
524953	SAW PIT, KILPAISON FARM	Saw Pit	OS 1st edition 25in mapping shows a saw pit at this location . Modern aerial photography shows only rough vegetation at this location, however All Wales LiDAR appears to show a rectangular depression suggesting that the pit may be still extant.	SM8940601846	Post Medieval
515099	LANDING PLACE, MIDDLE FARM	Landing Point	A landing place is suggested by a trackway leading to the foreshore from Middle Hill Farm and a lime kiln (NPRN 515097).	SM8820502013	Post Medieval
420445	UNNAMED WRECK (UPSIDE DOWN WRECK)	Wreck	During the storms of December 2013/January 2014, the upside down remains of wooden vessel comprising a length of keel, outer planking fastened with iron pins, together with main and filling frames were uncovered on the beach.	SM8810000200	Post Medieval
524746	BARABARA	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
518276	GRAM PARA	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
515147	UNNAMED WRECK	wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
524959	FORD, GUPTON BRIDGE	Ford	A ford is suggested by the crossing of the stream of the track from Starman's Hall in the east. Modern aerial photography shows a linear parchmark on the eastern side	SR8860899813	Post Medieval



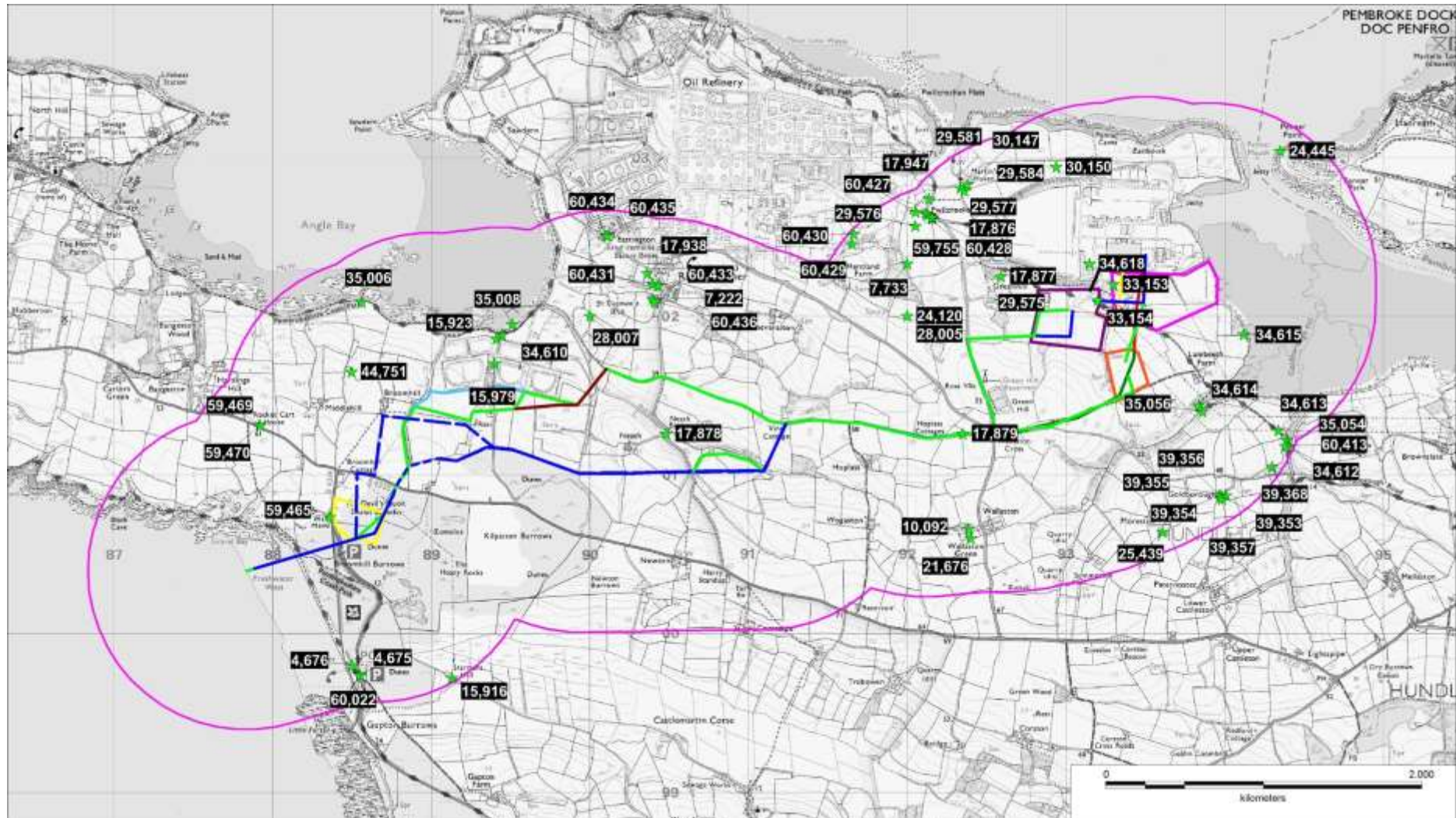
			of the stream.		
524958	LANDING PLACE, GUPTON BARROWS BRIDGE	Landing Point	A convergence of tracks from two quarries to the south (NGRs SS88689927 and SS88829916) and from a gravel pit to the north (SS88480049) suggest a landing place/loading place from the sandy foreshore.	SR8842999765	Post Medieval
506960	QUARRY, LAMBEETH	Quarry	A quarry is shown on an historic chart by an inlet measuring some 42m x 52m. OS 1st edition 25in mapping shows two quarries (centred on SM94050201 and SM94090192).	SM9403801988	Post Medieval
274846	LUNE	Wreck	Schooner, of wood construction, and of United Kingdom registry, carrying coal. Dimensions unknown. Vessel not armed. Travelling from unknown port to Dublin Bay. Lost 09/02/1861, Irish Sea, SW side. 5 lives lost, no passengers and 5 crew.	SM9201	Post Medieval
30266	STARMANS HALL, CASTLEMARTIN	Farmhouse	Small farmhouse and outbuildings circa 1800, original 1 storey now 1 1/2 storey. The walls are of rubble in a lime mortar. Slate pitched roof with end stacks. Openings have wooden lintels.	SR89139973	Post Medieval
24253	GUPTON BURROWS BRIDGE	Bridge	18th century, probably. Rubble masonry. Rough square voussoirs to arch, cope to parapet.	SR88559974	Post Medieval
272992	MARY E WADHAM	Wreck	Archaeological remains associated with the loss of this vessel are not confirmed as present at this location, but may be in the vicinity.	SR8822799634	Post Medieval
272855	UNNAMED WRECK	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
22195	JEFFERSONS WALLS, ANGLE	House	Modernised 18th century house. Huge gable chimney - possibly earlier.	SM8852001432	Post Medieval
411074	GREENHILL FARM, RHOSCROWTHER	Farmhouse	Recorded by RCAHMW aerial reconnaissance on the 11th February 2009 (AP_2009_0952).	SM92450208	Post Medieval
11161	WALLASTON CALVINISTIC	Chapel	Wallaston Methodist Chapel was built in 1809, modified in 1850 and rebuilt in 1880. The 1880 chapel was built in the later Vernacular style of the long-wall entry type. By 1993	SM92370066	Post Medieval

	METHODIST CHAPEL;		this chapel had fallen into disuse and by 2010 had been converted for other uses		
22012	GREENHILL FARM, PWLLCROCHAN	Farmhouse	Very large, 18th-19th century house with tall sash windows, wide panelled doors and simple plaster cornices. One tall lateral chimney. Rear bakehouse wing.	SM93530215	Post Medieval
300012	PEMBROKE POWER STATION	Coal Fired Power Station	Pembroke Power Station seen from the air.	SM933025	Post Medieval
272857	CHEROKEE	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
273023	ASTRONOMER	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
272829	BLESSING	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
272837	EXPRESS	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
273486	MARY ANN	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
272601	THOMAS M REED	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for	SM8814700050	Post Medieval

			the loss to be assigned.		
270760	WEAPONS PIT, ANGLE	Weapons Pit	Circular earthen walled weapons pit. Plotted off aerial photographs. Not visited during survey. Record derived from Defence of Britain Project (Record Number 12174)	SM88050063	Post Medieval
273478	DOVE	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
273340	PRINCESS ELIZABETH	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
273362	HOPE	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
273396	BROTHERS	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Post Medieval
32499	ST DECUMANS WELL; ST DEGMAN'S WELL; ST DEGYMAN'S WELL, RHOSCROWTHER	Holy Well	1. No covering to the opening in the remains of a walled chamber 0.3m square, scattered stones suggest it was once in a roofed chamber. 2. Can be associated with St Decuman's church, Rhoscrowther, 250m ENE.	SM90170210	Post Medieval
22049	HENLLAN (UPPER AND LOWER); UPPER HENTLAND, RHOSCROWTHER	House	(Ruined house site 16th-17th century). Landscaped grounds and gardens. Possible later medieval buildings.	SM91600223	Post Medieval
22444	NEWTON FARM, COTTAGE SOUTH OF, RHOSCROWTHER	House	Ruined cottage: stone walls, gable end stacks. Central doorway with flanking windows.	SM90600032	Post Medieval

22158	HILTON FARMHOUSE, RHOSCROWTHER	Farmhouse	17th century with alterations. 2 storey. North West wing. Rubble plastered. Thin slate roof. Recessed sashes. Massive chimney.	SM90390210	Post Medieval
21908	EASTINGTON MANOR HOUSE REMAINS, RHOSCROWTHER.	Manor House	1. 15th century, probably. Small ruined house. Peel type. 2 storey. Battlemented. Vaulted undercroft. Short newel stair. 2. The site of ornamental gardens, or a park is indicated by a ha-ha, with remains of a gateway across it to the S of the house	SM90120251	Post Medieval
270775	WEAPONS PIT, HUNDLETON	Weapons Pit	Circular sunken pit. Plotted off aerial photographs. Record derived from Defence of Britain Project (Record Number 12189)	SM93270307	Post Medieval
270773	GUN EMPLACEMENT, HUNDLETON	Gun Emplacement	Concrete 3.7" gun holdfast, centrally located in a gravel floor, within a chamfered corner, square plan earthen emplacement. Plotted off aerial photographs.	SM93020309	Post Medieval
270774	WEAPONS PIT, HUNDLETON	Weapons Pit	Circular sunken pit. Plotted off aerial photographs. Record derived from Defence of Britain Project (Record Number 12188)	SM93250304	Post Medieval
270779	PILLBOX, PEMBROKE	Pillbox	Single-storey, irregular hexagon, reinforced concrete, flat concrete roof. Door in rear (NE) wall, single embrasure in all remaining walls. Commanded exit off jetty. Plotted off aerial photographs.	SM94370292	Post Medieval

**Table 10:** Post-Medieval sites recorded on the Historic Environment Record and National Monuments Record



**Figure 10:** Post-Medieval sites recorded on the Historic Environment Record and National Monuments Record within a 1km buffer zone around the Greenlink Interconnector Project proposals.

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<b>PRN / NPRN</b>	<b>Site Name</b>	<b>Type</b>	<b>Summary Description</b>	<b>NGR</b>	<b>Period</b>
14355	BROOMHILL BURROWS	Battery	Four circular casemates with ancillary underground chambers and one rectangular building of 20th century (?WWI) date. PE 494	SM88260077	Modern
26211	PENNAR BARRACKS	Barrage Balloon Site	The site of a barrage balloon during the Second World War, now demolished and the site redeveloped.	SM94680294	Modern
26242	PWLLCROCHAN	Searchlight Battery	The site of a searchlight battery during the Second World War, now demolished.	SM92090262	Modern
26243	PENNAR CANTS	Searchlight Battery	The site of a searchlight battery during the Second World War, now demolished and in agricultural use.	SM93300305	Modern
26244	WEST PENNAR	Anti Aircraft Battery	The site of a Heavy Anti-aircraft Battery, now demolished and site returned to agricultural use.	SM93100309	Modern
26256	ROYAL ENGINEERS BARRACKS	Married Quarters	Now demolished;	SM94680296	Modern
26257	ROYAL ENGINEERS BARRACKS	Military Building	Now demolished	SM94640296	Modern
26258	PENNAR PARK, OCEAN WAY, PENNAR	Military Building	Now demolished	SM94600296	Modern
26259	ROYAL ENGINEERS BARRACKS	Military Building	Now Demolished	SM94660298	Modern
26260	ROYAL ENGINEERS BARRACKS	Married Quarters	Now demolished	SM94510297	Modern
26261	ROYAL ENGINEERS BARRACKS	Officers Mess	Now demolished	SM94470298	Modern
26262	ROYAL ENGINEERS BARRACKS	Military Headquarters	Now demolished	SM94590293	Modern
26263	ROYAL ENGINEERS BARRACKS	Barracks	Now demolished	SM94640290	Modern
26264	ROYAL ENGINEERS BARRACKS	Barracks	Now demolished	SM94680290	Modern

26265	ROYAL ENGINEERS BARRACKS	Ablutions Block	Now demolished	SM94660288	Modern
26266	ROYAL ENGINEERS BARRACKS	Military Building	Now demolished	SM94680281	Modern
26267	ROYAL ENGINEERS BARRACKS	Military Building	Now demolished	SM94660282	Modern
26268	ROYAL ENGINEERS BARRACKS	Latrine	Now demolished	SM94620289	Modern
26269	ROYAL ENGINEERS BARRACKS	Military Building	1903, Derelict. Single storey, 3 bay plan, cement rendered pier and panel brick construction, four light sash window per bay, gabled slate roof on timber king post trusses. Round head arched double timber doors in each gable	SM94660279	Modern
26270	ROYAL ENGINEERS BARRACKS	Military Building	Derelict.	SM94680277	Modern
26271	ROYAL ENGINEERS BARRACKS	Military Building	Derelict.	SM94700278	Modern
26272	ROYAL ENGINEERS BARRACKS	Military Building	Derelict.	SM94610280	Modern
26273	ROYAL ENGINEERS BARRACKS	Military Building	Derelict.	SM94590280	Modern
26274	ROYAL ENGINEERS BARRACKS	Military Building	Derelict.	SM94580280	Modern
26275	ROYAL ENGINEERS BARRACKS	Military Building	Derelict.	SM94560280	Modern
26276	ROYAL ENGINEERS BARRACKS	Military Building	1903, Derelict single storey office, rectangular plan, rendered rubble with quions, hipped slate roof with plain ridge tiles. Lean-to porch set centrally in South elevation flanked by two windows, chimneystack.	SM94520281	Modern
26277	ROYAL ENGINEERS BARRACKS	Military Building	1903, Derelict. Office. Single storey, rectangular plan, rendered rubble with quions, hipped slate roof with plain ridge tiles. Lean-to porch set centrally in South elevation flanked by two windows	SM94500281	Modern

26278	ROYAL ENGINEERS BARRACKS	Jetty	Concrete abutment, original timber jetty having been replaced by a lightweight steel jetty with flight of steel steps to permit landing. Metalwork now removed. Only concrete abutment remains. Original 1903 structure possibly altered.	SM94340292	Modern
26279	ROYAL ENGINEERS BARRACKS	Air Raid Shelter	1903, Trench/Shelter, now demolished. Zig-zag plan trench in five sections, destroyed by caravan park terracing	SM94610286	Modern
26280	ROYAL ENGINEERS BARRACKS	Air Raid Shelter	1903, Trench/Shelter, now demolished. Small 'V' shaped trench, destroyed by construction of a road	SM94450293	Modern
33440	ANGLE	Weapons Pit	R Thomas has identified this site as Defence Post, number 138. No trace of this site was identified during the coastal survey.	SM88040063	Modern
34572	COSHESTON PILL	Wreck	A fleet of warships were temporarily scuttled within Cosheston Pill after WWII before being towed away to be broken up and reused, identified from aerial photographs. Deep gouges within the base of the pill were created when the ships were beached.	SM94500180	Modern
34987	PENNAR BARRACKS	Military Building	Now derelict.	SM94660281	Modern
34988	PENNAR BARRACKS	Military Building	Group of mostly stone built buildings, including a generating room, offices. Now derelict, partly roofless, some structures destroyed. Military-late nineteenth century to twentieth century. Part of torpedo testing station.	SM94560281	Modern
34989	PENNAR BARRACKS	Slipway	A modern concrete slipway that does not appear on WWII aerial Photographs. Constructed on the same site as a 19th century Pier of which nothing appears to survive. Possibly originally had similar function to Pier PRN 26278.	SM94460282	Modern
34990	PENNAR BARRACKS	Military Building	A modern building constructed from breezeblocks, probably Holiday Park accommodation. Now becoming derelict. Built on top of a brick built and cement rendered structure with a flat concrete roof supported on iron girders	SM94450285	Modern
34991	PENNAR BARRACKS	Jetty	Spread over approximately 100m of foreshore. A series of concrete and steel constructions. A main pier/quay which had a jetty (now collapsed), a sea wall and two piers, approximately 1m wide, 30m long now collapsed, a dam to retain a small tidal pond	SM94360286	Modern

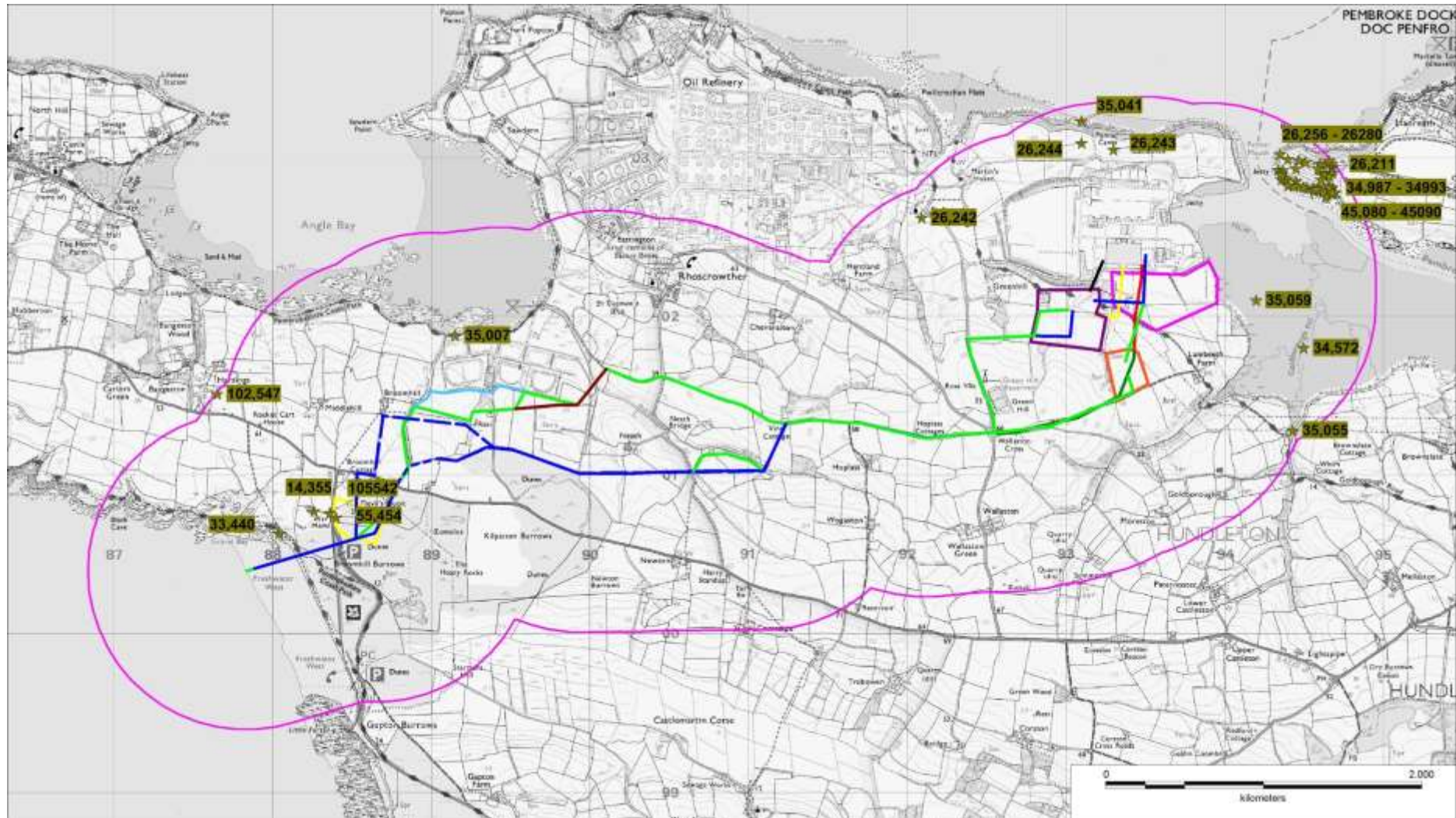
34992	PENNAR BARRACKS	Trackway	Track terraced into the hillside. Modern military, now disused and overgrown.	SM94350302	Modern
34993	PENNAR BARRACKS	Jetty	Concrete and steel pier/jetty and concrete sea defence and other steel stanchions. The jetty is attached to a stone built sea wall/pier base. Late nineteenth century, mostly twentieth century. The jetty slopes into the water.	SM94640275	Modern
35007	ANGLE BAY	Sea Defences	Modern concrete sea wall, showing signs of some erosion.	SM89150188	Modern
35041	PWLLCROCHAN	Pipeline	The cold water outfall from Pembroke Power Station. A gully has been cut into the bedrock coastal cliff. At its head is a massive concrete wall with the outflow pipe below low water mark. Steel uprights to the east of the outflow indicate that a jetty may have been present.	SM93100323	Modern
35055	GOLDBOROUGH PILL	Wreck	Small timber skiff or similar boat, approximately 4m long. Well preserved with all of hull intact. Located within the intertidal muds within the centre of the channel.	SM94430128	Modern
35059	COCHESTON PILL	Findspot	Within the tidal muds, scattered over a wide area are steel hawsers, iron and steel fittings, scraps, softwood timber uprights. These finds are most likely to be associated with the WWII warships that were beached here, PRN 34572.	SM942021	Modern
44604	RAF ANGLE	Navigation Aid			Modern
45080	ROYAL ENGINEERS BARRACKS	Pill Box	Circa 1940s Single storey, irregular hexagon, re-inforced concrete, flat concrete roof. Door in rear (north east) wall, single embrasure in all remaining walls. Over-looked exit off jetty. Plotted off aerial photographs. Demolished.	SM94370292	Modern
45081	PENNAR BARRACKS	Jetty	A jetty approximately 1m wide, 30m long now collapsed accessed from shore by a flight of concrete steps. Constructed from concrete slabs with a steel frame. Not visible on WWII aerial photographs, so presumably associated with the Holiday Park.	SM94380287	Modern
45082	PENNAR BARRACKS	Jetty	A jetty approximately 1m wide, 30m long now collapsed accessed from shore by a flight of concrete steps. Constructed from concrete slabs with a steel frame. Not visible on WWII aerial photographs, so presumably associated with the Holiday Park.	SM94390286	Modern

45083	PENNAR BARRACKS	Swimming Pool	A rectangular pool or tank associated with Pier 26278. Possibly held seawater in which mining cables were stored to prevent corrosion. The end wall has been removed so that it can no longer hold water.	SM94360290	Modern
45084	PENNAR BARRACKS	Swimming Pool	A sub-circular probable swimming pool constructed from cement rendered breezeblocks, presumed to be associated with the Holiday Park.	SM94440282	Modern
45085	PENNAR BARRACKS	Tramway	A network of 18" gauge tramlines associated with the Mining establishment, used to transport mines. The rails connected various building in the complex and ran along the shore to Pier PRN 26278 from where mines were loaded.	SM94560279	Modern
45086	PENNAR BARRACKS	Magazine	Possible magazine building constructed from red brick. Entered via a short corridor with two iron blast doors. Not a large enough structure to be the main magazine for the mining establishment. A revetment runs eastward from here to PRN 34990.	SM94400282	Modern
45087	PENNAR BARRACKS	Gun Emplacement	Two oval gun emplacements identified on WWII aerial photographs. Not located on the ground and presumed to have been destroyed by terracing for static caravans.	SM94400299	Modern
45088	PENNAR BARRACKS	Slipway	Slipway south of PRN 40583. Of post-WWII origin.	SM94360289	Modern
45089	PENNAR BARRACKS	Workshop	Brick built, partially cement rendered workshop of same build as neighbouring PRN 26270. With doorway and two windows and circular ventilator in east and west elevations.	SM94680278	Modern
45090	PENNAR BARRACKS	Building	Small rectangular brick built building to the west of PRN 26274, with no windows but a skylight at the apex of the slate gabled roof. Associated with the Mining establishment	SM94580280	Modern
55453	WHETSTONE HILL	World War 2 Defence	Rectangular plan, concrete hut floor with raised concrete generator set and engine bed.'Nissen' hut structure has been removed. C1941-44 (Thomas 1993).		Modern
55454	WHETSTONE HILL	World War 2 Defence, Anti Aircraft Defence Site	An anti-aircraft site which includes a series of concrete bases and hard standings for ancillary and support structures associated with the Scheduled Whetstone Hill WWII Anti-Aircraft battery (SAM PE 494; PRN 14355), identifiable on recent aerial photographs.	SM88400073	Modern

102547	RAF ANGLE SITE NO 2	Military Camp	RAF ANGLE site no 2 Communal Site. Consisted of Sick Quarters, Institute, YMCA, institute, gymnasium, squash court etc as drawn on the Angle site plan of 1943. When visited in 2013 only few buildings remain including Airmen's ablutions, Games room etc	SM87650151	Modern
401459	DISUSED OIL REFINERY, ANGLE	Oil Refinery		SM895016	Modern
515652	VICKERS WELLINGTONf XII MP638	Air Crash Site	This record comprises a documentary reference to a casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Modern
270761	WHETSTONE HILL, GRAVEL BAY, HEAVY ANTI-AIRCRAFT BATTERY	Anti Aircraft Battery, Gun Emplacement	The site comprises of a 3.7 inch gun emplacement with irregular octagonal plan, a flat concrete roof over shelters and lockers, and earth revetted. Gate in the east wall. Two detachment shelters and seven ammunition lockers are set into the walls.	SM88210079	Modern
273193	WILLEMOES OF THURO	Wreck	The remains of the wreck are now upside down and buried, but are occasionally uncovered (see Unnamed Wreck (Upside Down Wreck) NPRN 420445). The WILLEMOES was a wooden schooner built by J Ringanderson at Svenbourg	SM8810000200	Modern
273157	MARGARET ANN	Wreck	This record comprises a documentary reference to a shipping casualty which has been assigned to the maritime named location FRESHWATER WEST pending more information which may allow a more precise location for the loss to be assigned.	SM8814700050	Modern
240326	MARY JANE LEWIS	Wreck	Reported to be one of four hulks on the foreshore in this vicinity. At present, no more is known about the vessel.	SM8963602527	Modern
90546	SHIPWRECKS NEAR PEMBROKE POWER STATION	Wreck	SE of Pembroke Power station, located on inter tidal mudflat, are remains of forty-one abandoned destroyers and liberty ships. Oral history tells that they were run aground here after World War II, prior to being scrapped in Barry Dockyard.	SM94420182	Modern

**Table 11:** Modern sites recorded on the Historic Environment Record and National Monuments Record





**Figure 11:** Modern sites recorded on the Historic Environment Record and National Monuments Record within a 1km buffer zone around the Greenlink Interconnector Project proposals.

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## **4.5 Historic Mapping**

### ***1840 Tithe Maps***

- 4.5.1 The earliest maps which clearly show the Greenlink Interconnector Project proposals are the Tithe Maps of 1839/1840 for the parishes of Angle to the West, Rhoscrowther in the centre and that of Pwllcrochan for the eastern end of the development site.
- 4.5.2 The tithe map and apportionment for Angle (1840/1839) shows that the landfall and HDD sites lie in an area of pasture land known as Broomhill (references 329 and 329a on the Tithe Apportionment). On the northern side of the B4320 the land was a mix of pasture and arable land in fields associated with Broomhill Farm. To the east of this the HVDC cable routes run into Rhoscrowther parish and the associated Tithe map and apportionment. The area is again a mix of pasture and arable land.
- 4.5.3 At the eastern end of the development site the area lies within the Pwllcrochan Tithe Map area. A 'smith shop and gardens' is recorded on the road leading to Wallaston Cross, in the area where residential dwellings are presently located. The area of Converter Station Option 1 covers a number of fields, now mostly combined into 3 modern fields. In 1840 the area covered the following fields: No. 194 The Grove, pasture field; No. 195 The Lower Meadow, meadow; No. 193 Grove Park, pasture; No. 196 The Marsh, marsh; No. 197 West Croft, pasture; and No. 202 - East Croft, pasture.
- 4.5.3 Converter Station Option 2 was formerly split up into a number of fields and included a small cottage and garden no longer present. The apportionment records the following fields and land use: field No. 177 Sheep stone, arable, No. 171 Upper Field, arable; No. 170 cottage and garden; No. 172 Lower Field, meadow; No. 173 Garden, meadow; No. 174 Oak Park, pasture; and No. 175 Moor, arable
- 4.5.4 Converter Station Option 3 lies within a single field whose boundaries remain unchanged since the 1840 Tithe Map, the field recorded as No. 191 called West New Park and used for pasture.

### ***First Edition Ordnance Survey 1875*** (Figure 13)

- 4.5.6 By the time of the first edition Ordnance Survey maps (1875) there is little change in the layout of the Greenlink Interconnector Project proposals area. The land divisions remain virtually identical.
- 4.5.7 The area of dunes at the western end of the proposals is partially enclosed with field boundaries but not including the area of the HDD site which lies in the unseparated from the area of the Devil's Quoit.
- 4.5.8 In the centre of the area, Vine cottage is labelled as lying on the northern side of the road between Wallaston Cross and the Rhoscrowther road. This building is not shown on the Tithe map and survives as a ruin. The HVDC cable is proposed to run along this road.
- 4.5.9 Further east on this road, and the route of the proposed HVDC cable, a smithy is marked on the map (the smith shop shown on the Tithe map). The building still survives but has been converted to residential housing (Westwinds and Sunnyridge).
- 4.5.10 The cottage as seen on the Tithe map is still present within the area of Converter Station Option 2. It is labelled as Lane Cottage.
- 4.5.11 At the western end of the area of Converter Station Option 1 is what appears to be a small jetty projecting out around marshy ground into

the area formerly known as Pennar Mouth. The land here has now been reclaimed and the former Pembroke Power Station lay upon it.

***Second Edition Ordnance Survey Map of 1907/8*** (Figure 14)

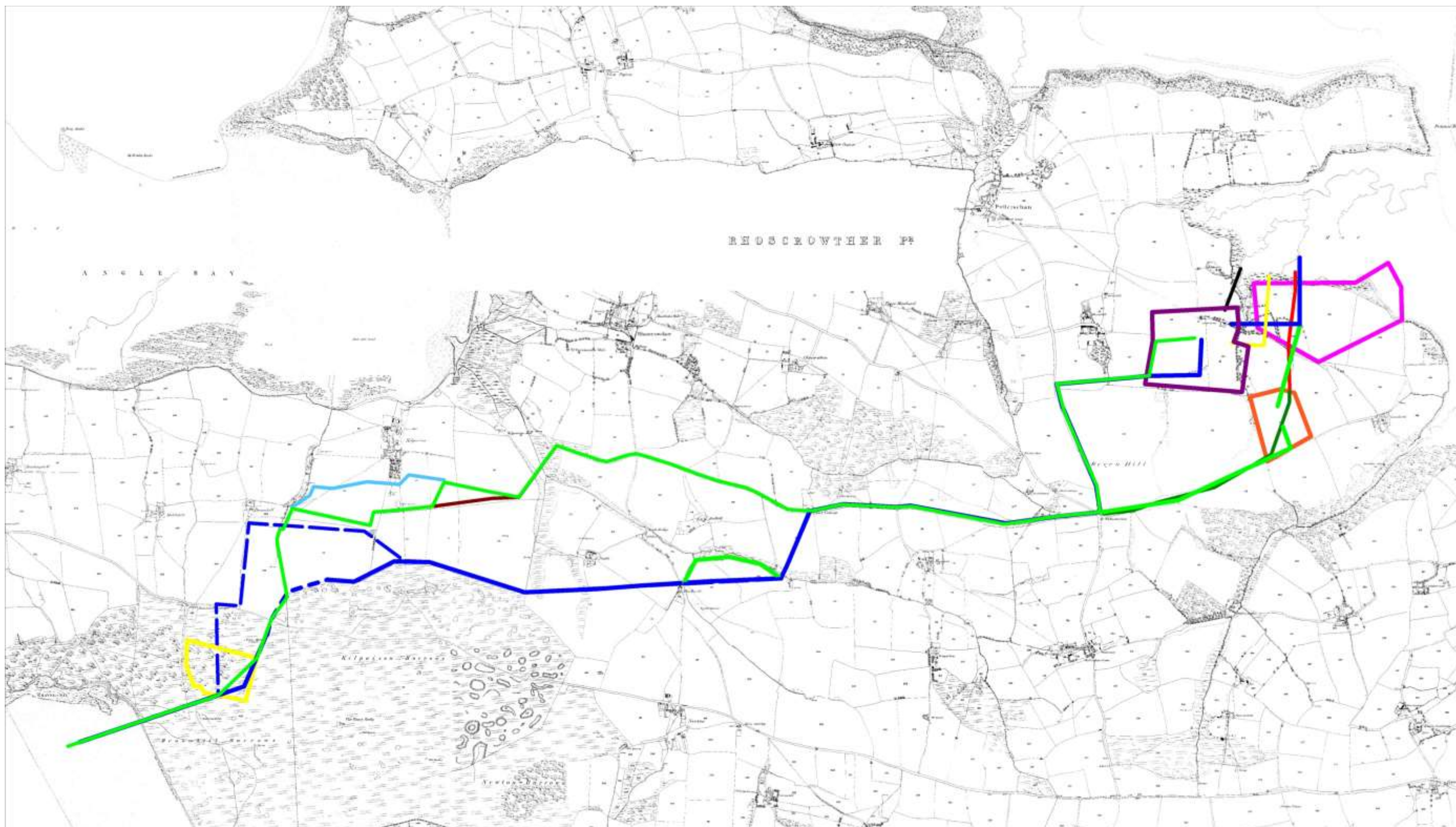
- 4.5.12 There is again very little change on the layout of the 2<sup>nd</sup> edition Ordnance Survey map to the first. The field boundaries are all much the same. At the HDD site there is no change from the previous mapping indicating that the field wasn't enclosed until later in the 20<sup>th</sup> century. This activity could be linked with improvements in agricultural practices making the land suitable to turn over to pasture, or possibly with forced enclosure schemes as seen during World War II
- 4.5.13 Vine cottage is still shown on the map lying on the northern side of the road between Wallaston Cross and the road to Rhoscrowther. Further east on this road, a pair of adjoining houses are marked, labelled as Hoplass cottages lying on the northern side road. These buildings no longer exist. The smithy is still shown.
- 4.5.14 In the area of Converter Station Option 2, the small building previously labelled as Lane Cottage, is no longer present, although the boundaries around its former garden are still shown. It is likely that a small wooded area that survives today in this area may be the site of this former cottage.
- 4.5.15 The small possible jetty at the western side of Converter Station Option 2 is still shown and labelled as 'Saltings'. It is uncertain whether this did originally serve as a small jetty giving a sheltered harbour into the area of Pennar Mouth, but by the late 19<sup>th</sup> century it had become silted up and was no longer used (the Ordnance Survey maps indicate the area as 'Mud' at this time). It lies in the area recorded as 'Marsh' on the Tithe map. The name saltings implies it was merely land which was covered by the sea during high tides.

***Later mapping***

- 4.5.16 In the 20<sup>th</sup> century there are significant changes to the general area around the Greenlink Interconnector Project proposals site. there has however been very little change to the actual areas of the proposals themselves.
- 4.5.17 During World War II the gun emplacement sites at Broomhill Burrows to the west and at Pennar Cants to the north were constructed. That at Broomhill Burrows on the western side of the development area included the main gun emplacement to the west of the HDD site and a series of ancillary buildings and hard standing areas within the same field as the HDD site. The gun emplacement survives, but only the concrete hardstanding survives within the HDD field. The Pennar Cants gun emplacement and adjacent searchlight battery lie to the north of the Pembroke Power Station area.
- 4.5.18 In the latter part of the 1950s Popton Fort was bought by BP and a series of oil tanks were constructed there and at the former oil tank site at Kilpaison. A pipeline was commenced in 1957 linking these oil storage tanks to the large oil refinery at Llandarcy near Swansea. The exact location of this pipeline could not be determined during the research undertaken for this desk-based assessment.
- 4.5.18 In 1968 the building of Pembroke Power Station was commenced, with the main structure lying directly over the former Pennar Mouth inlet. The Power Station was originally oil-fired, but this was closed in 1997 and demolished at the turn of the 21<sup>st</sup> century. The new gas-fired Pembroke

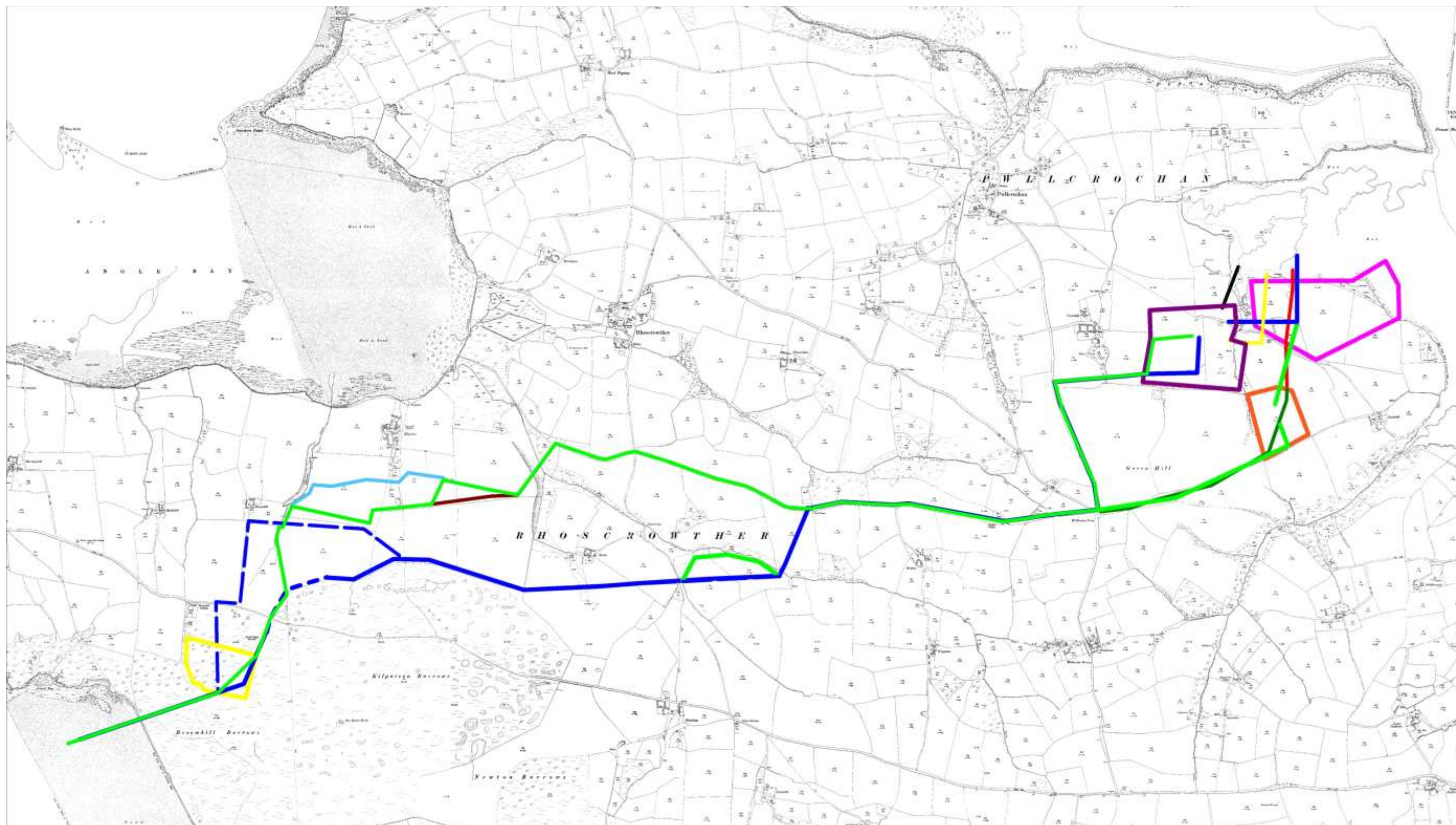
Power Station was erected in the same location as its predecessor and opened in 2012. It was noted in the previous desk-based assessment that much alteration of former lanes and field boundaries in the area of the proposed Converter Station Options 1 and 2 would have occurred during this time.





**Figure 12:** First Edition Ordnance Survey map of 1875 showing the proposals overlaid





**Figure 13:** Second Edition Ordnance Survey map of 1907 / 1908 showing the proposals overlaid



#### 4.6 Previous Archaeological Work

- 4.6.1 A number of previous archaeological investigations have been undertaken within the search area. Only two are directly relevant to the two main areas of the proposed development (Historic Landscape Characterisation (Appendix 1)), and two Pembroke Power Station archaeological studies (Murphy 1995; Sambrooke 1996).
- 4.6.2 During the preparation of the previous desk-based assessment for the earlier Greenwire scheme, analysis of Lidar data indicated the possible earthworks of a Roman fort within Kilpaison burrows close to an area where Roman finds are said to have been recovered in the past. A geophysical survey was undertaken across the site of the possible fort which indicated that the feature was more likely to be associated with modern land improvement works.
- 4.6.3 The Portable Antiquities Scheme and the national Museum of Wales do record a number of finds within the 1km buffer zone around the Greenlink Interconnector Project proposals area, although the majority of these area associated with prehistoric flint scatters already recorded on the HER. No significant finds have been recovered which provide any more useful information for this desk-based assessment.

#### 4.7 Aerial Photographs

- 4.7.1 An aerial photographic search for the area of the Greenlink Interconnector Project was carried out at the Royal Commission on the Ancient and Historical Monuments of Wales in Aberystwyth. Due to the size of the scheme a substantial amount of photographs were available which covered the area. Only relevant aerial photographs were looked at in any detail and these are listed below.

##### **Vertical Aerial Photographs**

<b>Aerial Photograph Reference</b>	<b>Relevant Frame Numbers</b>	<b>Date taken</b>
<b>RAF 106G/UK/1399</b>	<b>4133 – 4122; 4157 – 4158; 4162 – 4166</b>	<b>11/04/1946</b>
<p><b>Notes:</b> Some of the photographs show the area of Pennar Mouth prior to Pembroke Power Station being built. The photographs are immediately post-war and show a series of naval ships resting in the silts to the southeast of Pennar Mouth which were temporarily beached here before being taken away for scrapping. Known archaeological features were identified in the photographs.</p> <p>Two circular cropmarks were noted in the field south of Broomhill Farm, but these appear to be associated with vegetation as opposed to being archaeological.</p>		
<b>RAF 106G/UK/1625</b>	<b>2389; 4362 – 4374; 6355</b>	<b>07/07/1946</b>
<p><b>Notes:</b> Broomhill burrows gun emplacement and associated buildings and ancillary structures to the east covered as well. Dunes area east of Freshwater West beach are visible. Devil's Quoit is not visible.</p> <p>Other photos also show the area before the oil refinery. There are no signs of the possible Roman road identified through Lidar data by Gareth Roberts.</p> <p>Overall it shows that dunes covered all of Kilpaison burrows whereas the fields to the north of the Angle road look recently improved and include visible drainage features. Circular features near Broomhill Farm still visible, but seem to be vegetation.</p> <p>Other photos show the area of Pennar Cants including the gun battery and searchlight battery.</p> <p>The photo also shows the naval ships in the area southeast of Pennar Mouth, with at least 40</p>		

visible.		
<b>RAF 106G/UK/1629</b>	<b>2096 – 2099; 4017 – 4025; 5123 – 5131</b>	<b>08/07/1946</b>
<p><b>Notes:</b> Some of this run show the eastern side of Angle airfield. They also show Freshwater West beach and the gun emplacement at Broomhill Burrows, but clearly the guns themselves had been removed by this time. The additional buildings and hardstanding areas to the east are clearly visible within the HDD site field and along the road from Freshwater west to the T-junction with the Angle road. Dunes again across Kilpaison Burrows and in the HDD field and that of the Devil's Quoit (although this could not be seen in the photos).</p> <p>Circular vegetation features to east of Broomhill visible.</p> <p>The photographs pre-date the oil refinery and power station and there is no sign of the linear features of the possible Roman road alignment recorded by Gareth Roberts.</p> <p>The photos also indicates how much of the eastern end of the area of the Converter Station Option 1 must have been reclaimed from the sea at a later date. They do not show the possible jetty wall projecting out into Pennar Mouth as shown on early Ordnance Survey maps.</p> <p>The photo show the Pennar Cants gun battery and search light battery, as well as the earthworks of the scheduled fort nearby. Ancillary buildings along an access road leading up to the gun battery were also visible. There is a suggestion that buildings were also present within the ditches of the scheduled earthworks of the iron Age fort.</p> <p>The ships in the bay southeast of Pennar Mouth are still visible.</p>		
<b>RAF CPE/UK/1774</b>	<b>3002 – 3017</b>	<b>09/10/1946</b>
<b>Notes:</b> These photos are not the best quality. No additional features identified.		
<b>RAF 58/2985</b>	<b>0284 – 0292; 0306 – 0315</b>	<b>30/06/1959</b>
<p><b>Notes:</b> These show the first oil tanks being built at Kilpaison and at Popton Fort area – including a jetty heading north and a curving access road around the east side of Angle Bay. The photos may also show the start of the Kilpaison to Llandarcy pipeline being put in which could explain some of the linear features identified from Lidar data as a possible Roman road.</p> <p>The shots covering Freshwater West and the Broomhill gun emplacement indicate that some land improvement has been undertaken in the areas of the Devil's Quoit and HDD site, as well as fields to the north.</p>		
<b>Ordnance Survey 73-221</b>	<b>298 – 302</b>	<b>05/06/1973</b>
<b>Notes:</b> These photos show further agricultural land improvement around Freshwater West and in the fields north of the Angle road.		
<b>Ordnance Survey 77-014</b>	<b>036 – 042; 069 – 070</b>	<b>17/05/1977</b>
<b>Notes:</b> Poor photos. They show the former gas storage tanks at Kilpaison and Popton Fort. They also cover the site of Pembroke Power Station. No archaeology can be seen.		
<b>Ordnance Survey 78-093</b>	<b>290 – 297</b>	<b>18/06/1978</b>
<b>Notes:</b> Strangely these slightly later photos make the fields around the Devil's Quoit and HDD site to the Angle road unimproved? Perhaps this is due to a dry weather spell making the grass die back. The fields to the north of the Angle road do look improved.		
<b>Ordnance Survey 80-127</b>	<b>None relevant</b>	<b>25/08/1980</b>
<b>Notes:</b> These show areas around Pembroke Dock and Huddleston rather than the site area.		
<b>Ordnance Survey 93-128</b>	<b>236 – 257; 340 – 363</b>	<b>06/05/1993</b>
<p><b>Notes:</b> These show the area of then oil refinery and the original Pembroke Power Station area.</p> <p>The photographs show the Kilpaison oil tanks and also hints of a linear feature heading east which shows on Lidar data and has been tentatively identified as a possible Roman road route (although it is noted by Gareth Roberts that they could be pipelines).</p>		

<b>Ordnance Survey 95-120</b>	<b>231 – 244</b>	<b>04/05/1995</b>
<b>Notes:</b> Very similar to the 1993 vertical photographs showing the area of the oil refinery and coastline towards Pembroke Power Station.		
<b>Ordnance Survey 95-176</b>	<b>Not available</b>	<b>24/06/1995</b>
<b>Notes:</b> These were not available to consult.		

**Table 12:** Relevant Vertical Aerial Photographs consulted and notes

***Oblique Aerial Photographs***

<b>Aerial Photo Reference</b>	<b>Relevant Fr. Numbers</b>	<b>Description</b>	<b>Date taken</b>
2002/3506	30	West Pennar Rath	28/06/2002
2002/3506	31	Martin's Haven Enclosure	28/06/2002
2002/3506	32, 33	West Popton Camp	28/06/2002
2002/3506	34, 35, 36	Fort Popton	28/06/2002
2002/3507	0, 1, 2	Eastington manor House remains	28/06/2002
2002/3507	3, 4	Devil's Quoit Burial Chamber	28/06/2002
2002/3507	5, 6	Gun emplacement	28/06/2002
2003/5082	64, 65	Old Pembroke Power Station after demolition	13/06/2003
2003/5082	66	Pembroke River – possible intertidal structures	13/06/2003
905080	8	Fort Popton	24/02/1998
905081	1	Valero site and Iron Age fort	24/02/1998
985052	10	Gun Emplacement	22/12/1998
985052	12	Devil's Quoit	22/12/1998
985052	13	Wallaston Round Barrows	22/12/1998
985052	19	Earthwork of possible interest at Lightpipe Farm	22/12/1998
985052	8	Eastington Manor	22/12/1998
985053	20	Earthwork of possible interest at Lightpipe Farm	22/12/1998
955102	57, 58	Fort Popton	13/04/1995
955102	59	Oil refinery	13/04/1995
955102	60	Old Power Station before demolition	13/04/1995
973514	1	Devil's Quoit	03/12/1997
973514	10	West Pennar Rath	03/12/1997
973514	11, 12, 13	Martin's Haven Enclosure	03/12/1997
935031	52	Curving enclosure, uncertain location	27/02/1993
935074	10, 12	Pennar Cants earthworks north of Pembroke Power Station	01/04/1993

935074	13	Curving enclosure, uncertain location	01/04/1993
935075	43	Wallaston Round Barrows	01/04/1993
955101	51	Pennar Cants earthworks north of Pembroke Power Station	13/04/1995
955101	52	Pwllcrochan fort	13/04/1995
955101	53	Fort near refinery	13/04/1995
955101	54, 55	Fort Popton	13/04/1995
955102	56, 57, 58	Fort Popton	13/04/1995
955102	59	Oil refinery	13/04/1995
955102	60	Old Pembroke Power Station before demolition	13/04/1995
915015	20	Wallaston Round Barrows	24/03/1991
915015	21	West Popton enclosure	24/03/1991
915015	22	Fort Popton	24/03/1991
935021	48, 49	Gun emplacement	23/02/1993
935021	50	Devil's Quoit	23/02/1993
935021	51	West Popton camp	23/02/1993
935021	52, 53	Fort Popton	23/02/1993
935021	54, 55	Eastington Manor	23/02/1993

**Table 13:** Relevant Oblique Aerial Photographs consulted and subjects

#### **4.8 Site Walkover Survey**

4.8.1 Site visits were undertaken on 23<sup>rd</sup> and 30<sup>th</sup> August 2018.

4.8.2 The HDD site and all three Converter Station option areas were visited. The majority of the HVDC cable routes were observed, but in some cases this was done from a distance as no detailed walk over was necessary due to the ground conditions.

##### ***Landfall Site*** (Photos 1, 2 & 3)

4.8.3 The landfall site at Freshwater West lies within the beach area before running below the sand dunes to the northeast. These are very undulating dunes and presumably quite mobile.

##### ***War Memorial and Gun Emplacement*** (Photos 4 & 5)

4.8.4 The HVDC cable route from the landfall area to the HDD site passes to the east of the scheduled gun emplacement and the listed War Memorial overlooking Freshwater West beach. These will both be intervisible with the route and the HDD site during construction, although much of the route will be drilled below ground up to the HDD site.



**Photo 1:** View from landfall site on Freshwater West beach towards sand dunes



**Photo 2:** Dunes at beach head at Freshwater West



**Photo 3:** View east across dunes towards war memorial, along line of HVDC cable

***War Memorial and Gun Emplacement*** (Photos 4 & 5)

- 4.8.4 The HVDC cable route from the landfall area to the HDD site passes to the east of the scheduled gun emplacement and the listed War Memorial overlooking Freshwater West beach. These will both be intervisible with the route and the HDD site during construction, although much of the route will be drilled below ground up to the HDD site.

***HDD Site and Devil's Quoit*** (Photos 5, 6, 7, 8 & 9)

- 4.8.5 The HDD site is presently a seeded and grassed field. It has presumably been subject to improvement as the area was formerly uneven dunes. It would appear that the field has been seeded and ploughed for grass either for pasture or silage. The concrete hard standing areas noted in 2014 during the previous desk-based assessment of the area appear to have been partially taken up. The area was more overgrown than previously seen.
- 4.8.6 The scheduled monument of the devil's Quoit lies in the field immediately to the north of the HDD site. The proposed HVDC cable option will pass either to the east or west of the monument. The field is again improved grassland (silage or pasture). The monument lies in a slight dip within the field which has presumably been worn away through livestock being in the field.
- 4.8.7 It is understood that the HDD site will be temporary during construction and afterwards will be returned to grassland. The setting impacts of the HDD site on the adjacent Devil's Quoit will thus be temporary, although significant. It has been suggested that the HVDC cable route through the Devil's Quoit field should be done through directional drilling to minimise any archaeological impacts on the setting of the monument or direct impacts on any buried archaeology associated with the monument in the adjacent area. It is believed that an open-cut trench is the preferred method of installing the HVDC cable through this field. To the north of



the Devil's Quoit the area is again used as grassland. Once completed the area will be returned to grassland.



**Photo 4:** War Memorial overlooking Freshwater West beach



**Photo 5:** View west across the remains of the Broomhill Burrows gun emplacement



**Photo 6:** View southwest across HDD site



**Photo 7:** View northeast from HDD site towards Devil's Quoit



**Photo 8:** View north-northeast showing Devil's Quoit with oil refinery behind



**Photo 9:** View southeast towards Devil's Quoit across area of proposed HVDC cable route options

***HVDC Cable route options to Wallaston Cross*** (Photos 10 – 15)

- 4.8.8 To the north of the B4320 Angle road the HVDC cable route options again passes through pasture land. A number of the route options head north towards the former Kilpaison oil tank storage area. The route then turns east and runs along the Fort Popton road to the north of Neath Farm, crossing the road to Rhoscrowther and then joining the road to Wallaston Cross.



**Photo 10:** View northeast across HVDC cable option routes towards Broomhill Farm and oil refinery



**Photo 11:** View west from road towards Fort Popton and former oil tank area at Kilpaison Burrows across HVDC route options





**Photo 12:** View south from road towards Fort Popton across HVDC southern route options

- 4.8.9 The other route option turns east within the pasture fields north of the B4320 running south of both Broomhill Farm and Neath Farm. This route option then converges with the others at the site of the ruins of Vine Cottage on the road to Wallaston Cross.



**Photo 13:** View west along road towards Wallaston Cross with HVDC cable route to run along verge with the ruins of Vine Cottage in the distance



**Photo 14:** View east along road towards Wallaston Cross with HVDC route proposals to run along verge

- 4.8.10 From Vine Cottage the HVDC cable route runs east following the route of the road to Wallaston Cross. It is likely that the HVDC cable will be located on the northern verge of the road which is quite wide. The verge may well contain drainage and services. The route is unlikely to run through fields to the south as a solar farm is present south of Vine Cottage and west of the Hoplass Farm access.



**Photo 15:** View west from Wallaston Cross with HVDC cable route proposed along road



***HVDC Cable routes east of Wallaston Cross*** (Photos 17, 18 & 19)

- 4.8.11 At Wallaston Cross there are then two HVDC cable route options. The first runs directly east along Goldborough Road and the road to Lambeeth Farm. The second heads north and follows the road towards Pwllcrochan and then east along the Pembroke Power Station Access road. These roads have been significantly improved and widened with services and drainage also present.



**Photo 16:** View north at Wallaston Cross with HVDC cable route option to run along road towards Pembroke Power Station



**Photo 17:** View along improved road towards Pembroke Power Station along proposed HVDC cable route option to Converter Station Option 2



**Photo 18:** View east along road towards Lambeeth Farm along proposed HVDC cable route option to Converter Station Options 1 and 3



**Photo 19:** View west along road towards Lambeeth Farm along proposed HVDC cable route option to Converter Station Options 1 and 3

***Converter Station Option 3*** (Photos 20 & 21)

- 4.8.12 The Converter Station Option 3 lies within a field directly north of the Lambeeth farm road. It has been cultivated although it could not be determined if it was laid to grass for silage or if it was an arable crop. The field has a slight drop to the north towards the Pembroke Power Station. If this option is chosen then a cable run will still be needed to link to the Pembroke Power Station which will run to the north through further

cultivated fields and then through the Converter Station Option 1 area. overhead high voltage cables cross the northeastern corner of the area.



**Photo 20:** View north over Converter Station Option 3 area and HVDC cable routes to Converter Station Option 1, towards Pembroke Power Station



**Photo 21:** View northeast along cable route from Converter Station Option 3 to Pembroke Power Station

***Converter Station Option 1*** (Photos 20, 21, 22, 23 & 24)

4.8.13 Converter Station Option 1 will require the HVDC cable to run through the area of the potential Option 3 site and then north into the Option 1 area (Photos 20 and 21). The Option 1 area comprises a large

field to the north and parts of two further ones to the south. All of the fields are used for pasture. The northern field is relatively flat. The fields to the south are partially flat before sloping upwards. The Converter Station Option 1 area lies within the relatively flat parts of the fields.

4.8.14 The Option 1 area includes an intertidal part on its northeastern corner at Pennar Mouth. Earth and stone banks are present at this end of the area presumably associated with flood defences built when the original Power Station was built. There was no sign of the possible jetty or quay noted on the early Ordnance Survey maps. Land reclamation has evidently been undertaken in this area although the extent is uncertain.

4.8.15 The Converter Station will be joined with the main Pembroke Power Station substation via a relatively short cable. A number of smaller pylons pass overhead of the site to the east with larger overhead high voltage pylons at the western end.



**Photo 22:** View northeast across Converter Station Option 1 area





**Photo 23:** View west across southern part of Converter Station Option 1 area



**Photo 24:** View north across northeastern end of Converter Station Option 1 area, showing earth and stone bank and lower intertidal area

***Converter Station Option 2*** (Photos 25, 26 and 27)

- 4.8.16 Option 2 Converter Station area is presently rough pasture. There is a fall in the ground level to the south and northeast. Small overhead cables run along the northern boundary of the site and roughly through the centre of the field. The HVDC will connect to the Converter Station from the west, with further cables heading directly north into the Pembroke Power Station.



**Photo 25:** View west across northern half of Converter Station Option 2 area towards reservoir



**Photo 26:** View east across southern side of Converter Station Option 1 area



**Photo 27:** View north across Converter Station Option 1 area towards Pembroke Power Station

#### ***Summary of site visit***

- 4.8.17 Overall the site visit did not identify previously unknown archaeological sites of significance either in the form of earthworks or finds.
- 4.8.18 Views from designated archaeological sites around the perimeter of the proposals indicate that there will be limited intervisibility with the Greenlink Interconnector Project proposals, excluding from the war memorial and gun emplacement overlooking Freshwater West and of course the Devil's Quoit. Pwllcrochan and Rhoscrowther churches are low lying and although their tower and spire are visible from some distance, the main bodies of both churches are not. There will be intervisibility with Rocket Cart House towards Angle.
- 4.8.19 The site visit has demonstrated where there are areas of previous disturbance, although these are limited and are mostly associated with agricultural practices, such as improved pasture land (levelling of dunes); animal disturbance around the edges of the Devil's Quoit; existing road lines and verges where the HVDC cable is likely to be placed; road improvements and widening at Wallaston Cross and especially the road to Pembroke Power Station; the reservoir in Converter Station option 2 area; and the earth and stone banks placed in the northeastern area of Converter Station Option 1 associated with the Power Station.



## **5 POTENTIAL IMPACTS OF THE PROPOSED DEVELOPMENT ON THE HISTORIC ENVIRONMENT**

### **5.1 Previous Impacts to Development Area**

- 5.1.1 The landfall site of the HVDC cable on to Freshwater West beach could potentially run through the remains of submerged peat beds, associated with the former land surface. These are likely to have been significantly disturbed through coastal erosion and the extent of survival is probably very slight.
- 5.1.2 The sand dunes reach back some distance inland, covering all of the western part of the Greenlink Interconnector Project site and are likely to have stretched as far north as Broomhill Farm and possibly as far east as Neath Farm. Excluding the area directly east of the beach itself, the former dunes within the project area have been subject to reclamation and improvement for agricultural land. The dune areas have been levelled and the land divided into fields. Aerial photographs indicate that most of this reclamation dates from the mid-20<sup>th</sup> century onwards, although it is likely some may be of earlier date. The improvement of the land surface may have caused some disturbance to underlying remains, although there is also the possibility that earlier remains lie buried within the lower dune system.
- 5.1.3 The HVDC cable routes options running south of Broomhill Farm have been subject to agricultural practices, including ploughing and drainage. This will have caused some disturbance to any underlying archaeological remains that may have been present, but only to a limited depth. The route option that runs south of Neath farm and then up to Vine Cottage will have had similar limited disturbance along its route.
- 5.1.4 The area, excluding the Valero works and the Pembroke Power Station has not been subject to much development over the years, other than in the areas around the existing farms, many of which may have medieval origins. More recent disturbance will have come from the construction of World War II defensive sites, such as the gun emplacement at Freshwater West and the associated buildings and concreted areas to the east. The same will be true of the gun emplacement and searchlights at Pennar Cants. These will have impacted on any earlier underlying archaeology, but the remains of the structures themselves, including standing buildings, service runs and hard standing areas, are themselves of archaeological interest. These will have caused few if any direct impacts to the scheme area itself.
- 5.1.5 The HDD site lies within agricultural land which is reclaimed or improved dunes. An area on its western side contains the remains of concrete hardstanding areas associated with PRN 55454, a group of concrete foundations for support and ancillary structures associated with the WWII gun emplacement (SAM PE494, PRN 14355). A spoil heap in this area might indicate that some of these concrete areas have been dug up, though the extent of this is unclear and some of the material may have originated from elsewhere.
- 5.1.6 The HVDC cable options include routes that will run directly to the south of the former Kilpaison oil storage tanks that were constructed 1959 – 1961 (as seen on aerial photographs from 1959). These will have caused total destruction of any archaeological remains within their footprint and further disturbance will have occurred in the landscaped areas around the tanks where soil bunds were formed defining the perimeter of their area. The proposed HVDC cables will definitely not run through this tank area but

might skirt along its southern edge and possibly within or just on the edge of any previously landscaped areas.

- 5.1.7 The northern HVDC cable route options will follow existing road lines from the end of the Kilpaison oil tank area through to the ruins of Vine Cottage on the road to Wallaston Cross. From this point only a single HVDC cable route option is proposed following the road all the way to Wallaston Cross. These roads are single track and unlikely to have extensive disturbance on either side of the carriageway although drainage and possibly services may run along them. The verges will also have suffered surface disturbance from road repairs and traffic.
- 5.1.8 To the south of Vine Cottage and before the turn to Hoplass Farm lies the site of a solar farm. It is most unlikely that the HVDC cable route options would run to the south of the road in this area as it would affect the solar farm. The extent of any disturbance adjacent to the road is unknown, but the site visit did not seem to suggest any major works had taken place excluding in the entranceway into the solar farm area. It is possible that cables may come out from the solar farm and run along the verges, but this has not been confirmed.
- 5.1.9 At Wallaston Cross potential HVDC cable route options follow a single track road to Lambeeth Farm with similar potential disturbances to the smaller roads mentioned above. The alternative HVDC cable will run alongside the larger road towards Pwllcrochan and then to Pembroke Power Station. This road has been significantly upgraded and widened in recent years, with new verges and associated drainage and services presumably added. The verges are likely to be very disturbed along this route.
- 5.1.10 Converter Station Option 3 lies in a seeded grass (or possibly arable) field to the north of the road to Lambeeth Farm. This will have suffered limited disturbance from agricultural practices (ploughing and possibly drainage).
- 5.1.11 Converter Station Option 2 lies in rough pasture on land above and south of Pembroke power Station. A reservoir lies in its northwestern corner, otherwise the majority of previous disturbance in the field would be limited and associated with agricultural practices. The previous site visit undertaken for the previous desk-based assessment also noted that 'eastern end of the area was very boggy. Recent former fence lines and trackways are still visible over the site but are mostly overgrown. To the north the site is bounded by a narrow strip of woodland behind which is the Pembroke Power Station. The field is very sheltered and is only visible from the agricultural land to the south and west. A small copse is present' (Davies 2014) which it is thought may be associated with the former cottage that stood on the site as recorded on earlier OS maps and the Tithe map.
- 5.1.12 Converter Station Option 1 lies in a mostly low lying field directly north of the Power Station. Areas of the field close to the Power Station could have been disturbed during its original construction and rebuilding in the 2010s. The northeastern part of the field partly occupies land that was formerly reclaimed when the original power station was built. The field has a large stone and earth bank forming a right angle which is presumably associated with tidal flood defences as the land drops quite sharply to the Pembroke River inlet at this point. The Power Station itself was built in reclaimed land from a former bay as shown on early maps and aerial photographs. Levelled ground and road and trackways are present immediately south of the main substation building, indicating the land here has been significantly altered.

## **5.2 Potential Impacts from the Proposed Development**

- 5.2.1 Although the definitive design plans and cable routes are yet to be confirmed, it is clear that the following activities will be associated with the Greenlink Interconnector Project that could expose, damage or destroy any below ground archaeological remains that may be present at the site:
- Enabling works, such as installation of contractor's compounds, construction of access roads, parking areas, storage areas, borrow pits and associated services;
  - Topsoil stripping or initial ground preparation works for the HDD site and Converter Station sites;
  - Foundation excavation or piled foundations for the required structures;
  - Excavation of the main HDD drilling site and associated works;
  - Working easements for the HVDC cable route and excavation of the cable trench for the cable where directional drilling is not proposed; and
  - Any landscaping or terracing works required for the project following completion;
- 5.2.2 The HDD site will be a temporary installation and will be reinstated after completion. It is understood that the extent of disturbance is likely to be minimal, requiring a drill pit (to enable the HDD). A storage area will also be required, and it is possible that the area of existing hard standing at the western entrance to the field will be used. This hardstanding area is associated ancillary structures for the former gun emplacement. The actual location of the drill pit is yet to be determined.
- 5.2.3 The HVDC cable will be installed both through directional drilling and also open cut trenches. It has been confirmed that the cable will be drilled from the landfall site on Freshwater West beach below the sand dunes to the HDD site. It is proposed that from here to the chosen Converter Station site at Pembroke Power Station that the cable will involve open-cut trenches with certain sections drilled at various sensitive locations. At present two sensitive locations have already been identified, although further drilling points may be determined through additional preliminary studies (including this archaeological report). The two areas where drilling is already proposed are:
- Crossing the B4320 to avoid significant utilities and impacts on the Angle community from road closure and extended beyond woodland to avoid potential bat features;
  - Wallaston Cross – to avoid road closures (if possible) and direct the cables under the Valero gas pipeline – exact extent and location to be confirmed.
- 5.2.4 Through discussions with the client it has been identified that it would be prudent to extend the length of the drilled cable route from the HDD site all the way to the B4320 to run beneath the field in which the scheduled monument of the Devil's Quoit lies. This would remove the need for any open cut trench, associated access and easements to encroach close to the scheduled monument and thus prevent any impacts on its setting, and minimising the risk of any accidental damage occurring to the monument. Through further discussion it is apparent that the open-cut trench option through the field is still the preferred methodology, although this would need to be agreed with Cadw. Preliminary archaeological evaluation is likely to be needed within the field to determine the potential for deposits to be present. If the drilled cable option was to be used it would also be necessary to determine the depth of the drilled cable to ensure that this

removed the risk of disturbing any other archaeological remains associated with and in the vicinity of the Devil's Quoit.

- 5.2.5 Where open-cut trenches follow road lines, they are proposed to be open cut trenches within the verges to the sides of the road. Once completed, the open-cut trenches will be backfilled and reinstated.
- 5.2.6 Indicative plans of the Converter Station design have been produced for each of the three potential sites. The Converter Station will measure 100m x 85m, but final locations are yet to be determined.

### **5.3 Impacts to the Settings of Surrounding Designated Historic Assets**

- 5.3.1 The designated historic assets in the vicinity of the Greenlink Interconnector Project that will have the biggest impact on their settings from the proposals will be the Freshwater West gun emplacement (PE494) and the Devil's Quoit cromlech (PE020) both of which lie in close proximity to the proposed HDD site. As noted above, impacts to their setting may only be temporary during the construction phase of the development and potentially the cable route and HDD site will be returned to existing use after completion. As noted above, impacts to the setting of the Devil's Quoit during the construction works can be further lessened by directional drilling the cable through the field.
- 5.3.2 At the eastern end of the project there are four scheduled monuments with potential setting impacts from the construction of the Converter Station, namely the enclosure and earthworks at Lewiston Hall (PE400), West Pennar Camp (PE262), the round barrow at Corston Beacon (PE059) and the Wallaston Round Barrows (PE064). These sites will potentially be visible from the Converter Station site options, although for Option 3 there is very unlikely to be any intervisibility with PE262 and PE400. The same would be true for the round barrow sites PE059 and PE064 from Converter Station Options 1 and 2 directly southeast and southwest of the Power Station.
- 5.3.3 Setting impacts on any of the surrounding listed buildings will be very limited due to intervening topography and vegetation for the eastern side of the area. To the west both the Rocket Cart House and Lookout Tower are likely to be partially intervisible with the HDD site and cable route options. The War Memorial at Freshwater West is clearly intervisible with the HDD site and cable route options in the vicinity.
- 5.3.4 There will be direct impacts on the Historic Landscape Character area of Rhoscrowther within the Milford Haven Historic Landscape. This will impact upon a very small part of the Historic Landscape. The additional character areas of the oil refinery and Pembroke Power Station will not be directly affected, and due to their characters setting, impacts are considered negligible.
- 5.3.5 It should be noted that all of the designated historic assets already have intervisibility to a greater or lesser extent with the existing Valero oil refinery and Pembroke Power Station, which as noted above do themselves form part of the landscape character of the area. Many overhead cables and pylons are present leading from the Power Station. The works will mostly cause temporary impacts during construction and it is likely that there will only be one permanent structure for the converter housing adjacent to Pembroke Power Station probably 100m x 85m in size, with associated hard standing and access around it. Based on the existing layout of the Pembroke Power Station and the large sub-station

lying in close proximity to the proposed Converter Station, setting impacts would be considered minor to negligible.

- 5.3.6 Other designated sites, not historic assets, will also be affected by the proposals. The western half of the proposed Greenlink Interconnector Project will lie within the Pembrokeshire Coast National Park, with the HDD drilling site lying partially within the SSSI site 'Broomhill Burrows', the SPA site 'Castlemartin coast', and also the SAC Limestone Coast of South West Wales. The Park Authority will have to be consulted during the planning process, as will Natural Resources Wales over consent and approval for the elements of the proposed development that lie within the SSSI, SPA and SAC designated areas.
- 5.3.7 Open-cut cable routes along verges adjacent to existing road lines will cause less setting impacts during construction than those through open fields and thus these would be preferable routes to use. Following completion the HVDC cables will not be visible.

## 6 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL AND IMPORTANCE

- 6.1 This archaeological desk-based assessment has shown that the proposed development lies within an area of archaeological and historical significance and potential, with evidence of known human activity within the site dating back to the Mesolithic period. The majority of heritage assets are from the post-medieval and modern periods, associated with settlement, industry, agriculture and defence sites. The settlement pattern of the area is likely to have been established during the medieval period, although some farms may have earlier origins.
- 6.2 The site walkover survey did not identify any unrecorded upstanding archaeological remains within the boundary of the proposed Greenlink Interconnector Project area, excluding an earth and stone bank in the northwestern corner of the Converter Station Option 1 area, possibly associated with the construction of the original Pembroke Power Station.
- 6.3 It was observed that the ground was waterlogged in places within the area of Converter Station Option 2, which would facilitate the preservation of organic archaeological remains, should any be present.
- 6.4 An assessment of the potential for buried archaeology of the site as a whole is discussed below in order of archaeological period. The likely significance that such remains would possess is also given. Archaeological potential is defined in Table 14. Archaeological and historical importance is ascribed to the sites according to the criteria in Table 15.

Archaeological Potential	Definition
<b>High</b>	Known archaeological remains of the period within the site area, or an abundance of remains of the period within the near vicinity
<b>Medium</b>	A number of archaeological remains of the period are present in the vicinity or wider area, and/or the topography or location of the site would be typical for remains of that period
<b>Low</b>	Few sites of a specific period are known in the wider area, or where the topography of the site is unlikely to contain remains of that period. Or where no archaeological records of a certain period are present, but the location of the site is one that would be considered suitable or typical for remains of that period to exist
<b>Negligible</b>	Where there is no evidence for archaeological remains of a certain period to be present and the location/topography is most unlikely to contain remains of that period, or where a site area has already been totally disturbed

**Table 14:** Site potential definitions

<b>Site Importance (SI)</b>	<b>Definition of Site Category</b>
<b>High</b>	Features of national importance - Scheduled Ancient Monuments, Listed buildings Grade I and II*, well preserved historic landscapes, registered parks and gardens and historic battlefields
<b>Medium</b>	Non-scheduled sites of regional or county importance. Listed Buildings Grade II, reasonably preserved historic landscapes
<b>Medium / Low</b>	Features of district or local importance but generally common features at a national or regional level
<b>Low</b>	Minor sites or sites so badly damaged that too little now remains to justify their inclusion in a higher grade
<b>Uncertain</b>	Features about which insufficient is known to attribute them to a higher rank, or which cannot be sufficiently accurately located to justify their consideration
<b>Negligible</b>	Where a site area has already been totally disturbed by previous development or natural processes

**Table 15:** Site importance (significance) definitions

- 6.5 The potential for remains of Palaeolithic date is considered to be negligible, based on the fact that there are no known sites within 1km of the development area and the fact that any remains of that date are unlikely to be have survived glaciation. In the event of any such remains being discovered, they would be of high significance because of their rarity in this locale.
- 6.6 The potential for Mesolithic archaeological remains is considered high due to the amount of flint scatters recorded within the study area around the Greenlink Interconnector Project. Mesolithic finds would most likely be in the form of flint scatters as it is very rare for cut features to be found from this period. Overall the potential for further flint scatters and finds of Mesolithic date is considered high, although low for archaeological features. Should such remains be discovered, they would be considered to be of at least regional importance. Settlement remains would be of high importance.
- 6.7 The potential for Neolithic archaeological remains is considered very high due to the amount of flint scatters recorded within the study area and the presence of the Devil's Quoit burial chamber in the western part of the proposed development site. Neolithic activity could be in the form of flint scatters, but there is also a good potential for archaeological features associated with settlement or funerary activity to be present. Overall the potential for archaeological remains of Neolithic date is considered high. Should such remains be discovered, they would be considered to be of at least regional importance.
- 6.8 The potential for Bronze Age remains is also considered to be high, due to the number of flint finds recovered from the area and the presence of the known round barrow burial mounds at Kilpaison Burrows, Wallaston Green and the Corston Beacon. The HER also records numerous burnt mound sites within the buffer zone around the proposals area, which would be located close to stream courses. The importance of archaeological remains of Bronze Age date would be considered to be of at least regional importance.
- 6.9 The potential for Iron Age sites to be present is considered to be medium. Most Iron Age archaeology is centred on settlement sites such as the promontory and other forts recorded within the 2km and 1km buffer zones



around the site. There are no known Iron Age enclosures within the Greenlink Interconnector Project area, although there is a low potential for unenclosed settlement to be present. Remains of iron Age date would most likely be considered of regional importance.

- 6.10 The potential for Roman remains is thought to be low because there are very few Roman sites within the buffer zones. The potential Roman road identified from Lidar data running from the area of the former Kilpasion oil tanks towards Hundleton is now thought to be associated with oil pipelines. The possible Roman fort identified at Kilpasion Burrows has been confirmed to be a feature associated with dune clearance although Roman finds have been recovered from this area previously. Recent archaeological work has demonstrated the presence of more Roman remains within Pembrokeshire than previously thought and thus their presence cannot be discounted. Roman remains would be of medium-high importance.
- 6.11 Early-Medieval archaeological sites are scarce in the region and centred on the known church sites at Pwllcrochan and Rhoscrowther. The potential for discovery of remains of this date within the development site is considered to be low to negligible. Their importance would be high if found.
- 6.12 There is considered to be a medium to high potential for archaeological remains of medieval date within the proposed development area. Settlement remains would likely be centred on the settlements at Angle, Pwllcrochan, Rhoscrowther and Hundleton or in the areas of the existing farms around the development area. The Greenlink Interconnector Project area runs through land which has been used for agriculture since the medieval period and as such former field boundaries and ridge and furrow is likely to be present. Road alignments were also potentially established during the medieval period. The archaeological importance of such remains would be considered to be low, although settlement remains or non-agricultural activity could be of medium importance.
- 6.13 There is a high potential for remains of post-medieval date to be present within the area, although as with medieval archaeology, it is most likely to be associated with agricultural practices, with settlement focussed on the existing settlement and farm layout. Such remains would be of low importance.
- 6.14 The potential for archaeological remains of modern date would be identical for the post-medieval period, high but of low importance where associated with agricultural activity. The area also has the potential for World War II military defence sites (such as the hardstanding areas in the HDD field), industrial activity (pipelines associated with the oil refinery or infrastructure and remains of construction and landscaping for the Pembroke Power Station) and settlement (archaeological remains survive at Vine Cottage and also could survive within the area of the former Hoplass Cottages associated with 19<sup>th</sup> and early 20<sup>th</sup> century occupation). Such remains would all be considered to be of low importance, although the remains of Vine Cottage and Hoplass Cottages perhaps of low to medium importance.

## **7. CONCLUSIONS AND SUGGESTED MITIGATION**

- 7.1 The following information provides a list of suggested mitigation works that may need to be implemented for the Greenlink Interconnector Project. Any mitigation works will need to be approved by the archaeological advisor to the Local Planning Authorities (development management team at Dyfed Archaeological Trust). Other relevant bodies may also need to be approached for permission or consent for any archaeological works, including Natural Resources Wales, The National Trust and the Pembrokeshire Coast National Park Authority.
- 7.2 There are no known archaeological remains within the actual development area of national significance which would need to be preserved *in situ*. It is also considered unlikely that any hitherto unidentified remains revealed during the works would be of sufficient importance to prevent development continuing. Realignment of HVDC cable routes or the locations of the HDD site or Converter Station should be possible to avoid archaeological remains if needed.
- 7.3 Conclusions and mitigation is discussed for the following areas in turn:
- The landfall site to the HDD site
  - HDD Drilling site
  - HVDC Cable Route Options
  - Converter Station Option 1
  - Converter Station Option 2
  - Converter Station Option 3

### **7.4 The Landfall site**

- 7.4.1 The landfall site will lie within freshwater West beach. The cable is likely to be drilled below ground in this location and depending upon depth, is unlikely to cause any impacts to buried or upstanding archaeological remains. It is possible that buried deposits of earlier ground surfaces could be present below the sand on the beach (including evidence for submerged forests).
- 7.4.2 It is proposed that further information should be sought regarding the depth and methodology of drilling. The document 'Greenlink Concise Project Description 180730 Rev A' states that the drilled parts of the route will be between 850mm and 1m below ground level. This depth could still impact upon buried archaeological remains where pits or ditches may be of greater depth than 850mm below present ground level although on the whole most sites other than those with obvious surviving earthworks, will have few features below this depth.
- 7.4.3 Where geotechnical information has been obtained or is due to be obtained, it would be useful for this information to be viewed by an archaeologist to confirm or otherwise the threat of directional drilling to buried remains or deposits.
- 7.4.4 Where the drilled cable route will run through existing sand dunes it is unlikely that any form of preliminary archaeological mitigation will be required. Sand dunes could be of considerable depth with archaeology surviving at deeper levels far below that of the potential drilled depth of the cable route. Geophysical survey would not be suitable on areas of deeper sand dunes.

## **7.5 HDD Drilling Site**

- 7.5.1 It is understood that the remaining areas of hardstanding on the western side of the HDD site area may be used for material storage during the construction phase of the Greenlink Interconnector Project. It is assumed that they would be cleared and left intact following completion.
- 7.5.2 It is understood that the drilling site itself will not be particularly large, comprising the drilling pit itself and presumably access and a working easement around it. The exact location of the drilling pit is not known as yet.
- 7.5.2 It is recommended that the HDD site area as defined on plans, is subject to a full geophysical survey. Although located on sand dunes which have been reclaimed for agricultural land, it would be worth determining if archaeological remains can be identified through survey prior to the works commencing. Should the survey identify underlying archaeological features, then the final location of the drilling site could be moved to avoid any such features or they could be subject to further investigation or full excavation (preservation through record) prior to the development works commencing. If no remains are identified then a watching brief should be implemented during construction to observe for archaeological remains that did not show up through survey. This might be the case in the event that Mesolithic or Neolithic flint scatters within the topsoil are present, where no underlying features are present.

## **7.6 HVDC Cable Route Options**

- 7.6.1 As noted in the previous section, much of the HVDC cable route will be installed using open-cut trenches, excluding those areas underneath existing roads.
- 7.6.2 The document 'Greenlink Concise Project Description 180730 Rev A' states that the cable route will be approximately 7km long. Where it crosses agricultural land a 30m wide working strip of land is likely to be sufficient for construction and maintenance.
- 7.6.3 As noted above, although archaeologically it would be preferable for the cable to be drilled through the field in which the scheduled Devil's Quoit chambered tomb is located, it is understood that the engineers would prefer it to be installed using an open-cut trench. It is recommended that if this is the case that the working easement is reduced through the field to minimise disturbance to any buried archaeology and impacts on the setting of the monument during construction.
- 7.6.4 Initial geophysical survey of the Devil's Quoit field is also recommended whether drilled or open-cut to ensure that the potential presence and layout of any buried archaeological remains within the field are understood before the cable is installed. Should archaeology be identified, the cable route might be able to be moved to avoid the remains or further investigation through to full excavation (preservation through record) could be undertaken prior to the development works commencing. If no remains are identified then a watching brief during installation would be appropriate.
- 7.6.5 Where the HVDC is proposed to cross agricultural land and the 30m wide working easement is required, this should be geophysically surveyed to determine the presence or absence of buried archaeological remains. To ensure a suitable interpretation of the results of any survey it is

recommended that either a 20m or 30m zone is surveyed either side of the pipeline route (where possible). This would mean that a strip of 40m or 60m would be surveyed.

- 7.6.6 Where archaeology is identified by the geophysical survey further investigation of any remains within its route should be undertaken. This could involve full excavation of areas within the working easement where the potential for significant archaeology has been identified or a watching brief implemented where few or no remains have been identified. Initial survey and excavation would be undertaken in advance of the installation of the pipeline or working easement. The watching brief would be undertaken during the works.
- 7.6.7 Where the HVDC cable is proposed to be installed alongside the existing road within the verge, and a 30m wide working easement is not required, then geophysical survey may not be necessary. An archaeological watching brief could be implemented within these areas during construction, or if it is clear that previous roadside drainage or services are present which have removed the potential for archaeology, then no further works may be necessary.

## **7.7 Converter Station Options**

- 7.7.1 Converter Station Option 1 lies within low lying pasture land directly south of the Pembroke Power Station Substation. There is a field boundary separating the northern part of the site and the southern parts (including a central boundary). There is low lying land to the northeast which may have been reclaimed when the original Pembroke Power Station was built. A possibly contemporary tidal defence walls is also present in this area.
- 7.7.2 Converter Station Option 2 lies on a relatively flat field for the most part (although with a dip to the northeast). It is presently laid to rough pasture. The remains of a former wood and wire field boundary runs through the middle of the field.
- 7.7.3 Converter Station Option 3 lies within a field on a slight north facing slope. It would appear to have been tilled and seeded, possibly for silage. There are no internal subdivisions within the field.
- 7.7.4 In each case the Converter Station will require the erection of a large building with associated parking, access and ancillary areas around. It is possible that the entire areas could be disturbed by the works. It is recommended that the three Converter Station Option areas are subject to a preliminary geophysical survey (unless of course a more definitive choice of location options has been chosen, in which case only those / that area would need to be surveyed). Where archaeology is identified by the geophysical survey further investigation of any remains within the areas should be undertaken or the location of works moved to avoid significant archaeology. Further investigation could involve full excavation of areas where the potential for significant archaeology has been identified and the site of the Converter Station cannot be moved. A watching brief might be implemented during construction where few or no remains have been identified. Initial survey and excavation would be undertaken in advance of the installation of the pipeline or working easement. The watching brief would be undertaken during the works.

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### Database

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### Websites

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### Cartographic

Parish Tithe Map and Apportionment. 1842 / 1840 . Angle Parish

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Parish Tithe Map and Apportionment. 1840 / 1841 Pwllcrochan Parish

## **APPENDIX I:**

### **GREENLINK INTERCONNECTOR, PEMBROKESHIRE:**

#### **WRITTEN SCHEME OF INVESTIGATION FOR A HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT**

##### **1 INTRODUCTION**

- 1.1 DAT Archaeological Services have been commissioned by Ove Arup and Partners Ltd (Arup) to prepare a Historic Environment Desk-Based Assessment to support the development of the Greenlink Interconnector project. This project aims to provide an electrical connection between Ireland and GB national grids via a subsea cable. Landfall for the cable will be at Freshwater West and run to the Pembroke Power Station in Pembrokeshire (Roughly NGR SM 8783 0039 to SM 9350 0239).
- 1.2 This written scheme of investigation presents a proposed methodology for the desk-based assessment which will update a previous report prepared by DAT Archaeological Services for the precursor project referred to as 'Greenwire' (Davies 2013). This Historic Environment Desk-Based Assessment will provide an update to this earlier report to include new searches of archaeological and historical data for the new scheme and to adhere to more recent guidance and planning laws.
- 1.3 The desk-based assessment will specifically addresses potential cultural heritage constraints for the Onshore Wales elements of the project (as opposed to any marine archaeological constraints which will be addressed in a separate report). The report will thus consider the following elements of the project, as defined by Arup in their letter requesting a tender for the work dated 09/07/2018:
  - The landfall of the cable route to the Mean Low Water Springs mark;
  - A 250m buffer around the various proposed HVDC (High Voltage Direct Current) cable route options being considered from Freshwater West to Pembroke Power Station; and
  - The HDD (Horizontal Directional Drilling) Site near the landfall at Freshwater West and potential Converter Station sites around Pembroke Power Station.
- 1.4 The report will comply with the Chartered Institute for Archaeologists Standard and Guidance for Historic Environment Desk-Based Assessments (CIfA 2014), available at:  
[http://www.archaeologists.net/sites/default/files/CIfAS&GDBA\\_2.pdf](http://www.archaeologists.net/sites/default/files/CIfAS&GDBA_2.pdf)
- 1.5 The desk-based assessment of the development area will identify any known archaeological or historical sites within the site and its environs, identify potential setting impacts on Scheduled Monuments or Listed Buildings in the vicinity, identify any Historic Landscape Areas that may be affected by the proposals and assess the potential for hitherto unknown archaeological remains to be present within the proposed development area.
- 1.5 An indication of what further archaeological works might be required, if any, will also be prepared.
- 1.6 The Trust always operates to best professional practice. DAT Archaeological Services has its own Health and Safety Policy, and all works



are covered by appropriate Employer's Liability and Public Liability Insurances. Copies of all are available on request.

- 1.7 Dyfed Archaeological Trust is a CIfA Registered Archaeological Organisation.
- 1.8 All permanent staff members of DAT Archaeological Services are CSCS<sup>2</sup> registered.

## **2. AIM AND OBJECTIVES OF THE PROJECT**

- 2.1 This document provides a scheme of works for:

***The preparation of an updated desk-based assessment for the proposed Greenlink Interconnector Project, linking electricity from Ireland with the UK. The proposed High Voltage Direct Current (HVDC) cable route will have landfall at Freshwater West, before heading northeast and then eastwards to Pembroke Power Station. A number of route options and also Converter Station locations will be considered by the report to determine the archaeological constraints that might exist for any of the routes/locations, to aid in the determination of the final scheme proposals. The report will assess the potential impact that the development might have on any underlying archaeological remains, if present, within the study area, and an assessment of the wider impact of the development on the historic environment. The assessment will be presented within a report that will be submitted with any forthcoming planning applications for the proposed development.***

- 2.2 A written scheme of investigation will be provided to outline the methodology by which DAT Archaeological Services will undertake the assessment (this document).
- 2.3 Any known archaeological remains will be identified and an assessment will be made of the potential of any hitherto unknown archaeological deposits within the locations of the proposed HVDC cable routes and Connector Station sites, as well as a Horizontal Directional Drilling area close Freshwater West and suitable buffer zones around these.
- 2.4 Any known historic environment features within the wider area that could be affected indirectly by the proposed works will be identified.

## **3. DESK-BASED ASSESSMENT METHODOLOGY**

- 3.1 The proposed desk-based assessment will involve the preparation of a stand-alone report. The report will be prepared using relevant information from a number of sources, and will comprise the following elements:
  - Dyfed Archaeological Trust Historic Environment Record data and other relevant information (DAT HER);
  - National Monuments Record of Wales information as held by the Royal Commission on the Ancient and Historic Monuments of Wales in Aberystwyth (RCAHMW offices in Aberystwyth);
  - Bibliographic, cartographic and photographic information held at the National Library of Wales and potentially information held at the Local Studies Library;

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<sup>2</sup> Construction Skills Certification Scheme (Health and Safety Tested)

- Identification of any Scheduled Ancient Monuments, Listed Buildings, Parks and Gardens, Historic Landscape Character Areas or Conservation Areas within or in the vicinity of the site area (Cadw, DAT, NRW);
  - Relevant web-based information;
  - Site visit and walkover survey;
  - Assessment of the archaeological potential of the area; and
  - Assessment of likely impacts on any identified remains (or potential remains) and likely requirements, if any, for further stages of archaeological work.
- 3.2 A search area of 1km around the boundary of the Horizontal Directional Drilling site at Freshwater West will be used to identify the presence of non-designated archaeological sites and a boundary of 2km for scheduled ancient monuments, historic landscape character areas, registered parks and gardens, listed buildings. A buffer of 1km around the three combined Converter Stations at Pembroke Power Station will be used for non-designated historic assets and a 2km for designated sites. A buffer zone of 250m around the various proposed HVDC cable route options will be used to identify all historic assets. The wider area historic assets will be identified within the search areas for the HDD sites and Converter Station options. The information would be used to provide an indication of the archaeological potential of the development area and any possible issues in relation to the impact of the development on the wider historic environment.
- 3.3 The following will be considered when preparing the assessment (in some cases no such features may be present and thus will not be considered):
- a. Scheduled Monuments (SMs) and their settings;
  - b. Non-scheduled ancient monuments and their settings;
  - c. Listed buildings and their settings;
  - d. Non statutory Buildings of Local Importance, where this information is readily available and relevant to the proposed development;
  - e. Registered Parks and Gardens and their essential settings;
  - f. Registered Historic Landscapes;
  - g. Non-registered historic landscapes;
  - h. Buried archaeological potential;
  - i. Palaeo-environmental potential;
  - j. Hedgerows and field patterns;
  - k. Ancient woodland;
  - l. Place-name evidence;
  - m. Newly identified sites of historic importance;
  - n. Cumulative impacts
  - o. Any Tir Gofal / Glastir interests or requirements (where relevant); and
  - p. LANDMAP and landscape characterisation information.
- 3.4 A report will be prepared on the results of the assessment. This report will include information on known sites within and in the vicinity of the proposed development site. Maps of known archaeological and historical

sites will be presented in the report. Photographs will be used where appropriate.

- 3.5 The report will be fully representative of the information gained from the above methodology, even if there should be negative evidence. The report will include the following:
- a) A concise non-technical summary of the appraisal results.
  - b) At least one plan showing the site's location in respect to the local topography.
  - c) A List of all the sources consulted.
  - d) Where necessary, suitably selected plans and maps (including historic maps) of significant archaeological features.
  - e) Written descriptions of all archaeological features observed during the site visit.
  - f) A statement of the local and regional context of the historic assets identified. Consideration, where appropriate, of the national Research Agenda.
  - g) An assessment of the relative value or significance of each recognised historic asset.
  - h) An impact assessment of the proposed development on the potential archaeological resource.
- 3.7 Once completed, a copy of the report will be submitted to the Local Planning Authority (LPA) for the consideration of their archaeological advisers. A further copy of the report will be provided for deposition within the regional Historic Environment Record (HER).
- 3.8 Where appropriate, a summary report on any new significant archaeological discovery will be submitted for publication to a national journal (e.g. Archaeology in Wales) no later than one year after the completion of the work.
- 3.9 Although there may be a period during which client confidentiality should be maintained, the report and the archive should normally be deposited in the appropriate repository not later than six months after completion of the work.

#### **4 STAFF**

- 4.1 The project will be managed by James Meek, Head of DAT Archaeological Services.
- 4.2 The report will be undertaken by an experienced member of DAT Archaeological Services staff.

#### **5. HEALTH AND SAFETY**

- 5.1 All permanent members of DAT Archaeological Services staff are CSCS<sup>3</sup> registered.
- 5.2 DAT Archaeological Services will carry out a health and safety risk assessment prior to the site walkover survey to ensure that all potential risks are minimised.

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<sup>3</sup> Construction Skills Certification Scheme (Health and Safety Tested)

- 5.3 All relevant health and safety regulations must be followed where advised by the client.
- 5.4 As the site visit will likely be undertaken by a single archaeologist, it may be necessary to implement lone working procedures and contacts.

## **APPENDIX II: HISTORIC LANDSCAPE CHARACTERISATION AREAS:**

### **RHOSCROWTHER**

**GRID REFERENCE: SM 901014**

**AREA IN HECTARES: 2017**

#### **Historic Background**

This large character area lies on the south side of the Milford Haven waterway. It lies within the parishes of Angle, Hundleton, Pwllcrochan and Rhoscrowther. The landscape features a large number of prehistoric elements. The present B4320 is traditionally thought to follow the line of a prehistoric trackway, known as 'The Ridgeway', that runs along the main east-west ridge across south Pembrokeshire. The amount of prehistoric archaeology surviving within the immediate environs lends credence to the tradition of this being an ancient trackway. Neighbouring this area Kilpaison Burrows dune slacks overlie a well-known complex of bronze age round barrows, and a neolithic burial chamber, the 'Devil's Quoit'. Further groups of prominent barrows lie just south of Wallaston Farm, and at the Dry Burrows near Hundleton, while Corston Beacon round barrow is still a prominent landmark. Straight, north-south field boundaries that characterise much of south Pembrokeshire are co-axial upon the east-west Ridgeway and are possibly prehistoric in origin. The Ridgeway remains a prominent landscape feature and appears to have formed the boundary between the early medieval commotes, of Manorbier – within which this area lay – and Coedrath, both in Cantref Penfro. An ecclesiastical centre lay at Rhoscrowther itself, which was the site of a 'Bishop house', a quasi-collegiate foundation of St Davids. Much of the area lay within the later medieval Manor of Castlemartin which was the demesne manor of the Lordship of Pembroke, and a castle-guard fee. Rhoscrowther and Pwllcrochan appear to have been more loosely tied to the manor and by the later medieval period a separate gentry-house had been established in Rhoscrowther parish at Eastington. Hundleton parish was created out of part of Monkton parish in the 1840s and lay within the borough liberty of Pembroke. Angle, comprising 2 knight's fees, was held as a mesne lordship of Pembroke. Many of the farms in the area began as villas mentioned in accounts of the 13th century to the 15th century. Orielson and Kilpaison represented one knight's fee held of Pembroke by Richard Wryot in 1353, Moreston represented ½ knight's fee held of Pembroke, Rhoscrowther, with the parish church and glebe were also held of Pembroke, and Corston, Neath and Wallaston, were members of the Manor of Castlemartin from the 13th century onwards. Pwllcrochan parish church was a possession of the Benedictines of Monkton Priory, Pembroke. However, there is little evidence for open-field farming within the area, but strips were still held collectively within the fields of Newton Farm in 1824, and are shown on a map of that year. Windmills appear to have formed a prominent feature of the landscape and at least three appear to have occupied the area during the medieval or early post-medieval period. The Herbert Earls of Pembroke held Castlemartin manor from 1551 until 1598 when it was sold to the Lords of Stackpole. In 1698, Alexander Campbell acquired it through marriage. Many of the farms, and major houses such as Bangeston – possibly the site of a moated medieval manor – were in direct Campbell ownership. Rhoscrowther and Pwllcrochan had become a holding distinct from the Castlemartin estate, the 'Rosecrowther and Pulcrogan Estate' which comprises most of the central part of this area. In 1824 the estate was sold to Sir John Owen of Orielson, an estate that included the easternmost part of this area, and the Mirehouses of Angle eventually acquired much of it. The present system of large, irregular fields and dispersed settlement, is apparent by 1787, when it is shown on an estate map of that year, as are the villages of Rhoscrowther and the hamlet of Pwllcrochan. Both these settlements were abandoned as a result of the construction of an oil refinery and power station in neighbouring areas in the 1960s. There are also limestone quarries in this area.

### **Description and essential historic landscape components**

Rhoscrowther is a large historic landscape area that stretches along the southern banks of the Milford Haven waterway from Hundleton in the east to the far west of the Castlemartin Peninsula. Although it includes the mud, marsh and rocks along the foreshore of the waterway, the main bulk of this area comprises an agricultural landscape lying across gently undulating hills that rise to 60m to 70m above sea level. Apart from the loosely clustered and now abandoned hamlet of Rhoscrowther and the former cluster of dwellings at Pwllcrochan there are no villages, and the settlement pattern comprises dispersed farms and other dwellings. Rhoscrowther and Pwllcrochan were abandoned during or after the construction of the Texaco oil refinery and Pembroke Power Station. There are a large number of listed buildings most of them farm buildings. Farms tend towards the large size. Stone is the main building material, with houses usually cement rendered and outbuildings left bare, and slate the roofing material. Farmhouses date in the main to the 19th century, but there is great variety in this area, with more examples in the polite Georgian style than in the vernacular tradition. Although the latter tradition is apparent in some of the smaller examples, such as the 17th century or 18th century house at Hilton with its massive chimney, and the remains of 18th century Bangeston House. Other older examples include the late medieval tower house at Eastington with its neighbouring 18th century house, and an old 16th or 17th century mansion at Henllan now used as a barn. Modern housing is not a strong component of the landscape, but new single dwellings constructed close to farms are present. Most farms have substantial ranges of 19th century outbuildings, often set in a formal arrangement around a yard, and large collections of modern steel, concrete and asbestos agricultural structures. Included in this area are two medieval churches, each with a substantial tower, St Decumanus at Rhoscrowther and St Mary's at Pwllcrochan. Land-use is a mixture of improved pasture and arable. There is very little rough pasture or under-used farmland apart from pockets of marsh close to the coast. Deciduous woodland is common on the steeper valley sides and on the coastal slopes – indeed in the latter location it is very prominent – but across the more gently sloping farmland it does not constitute a major landscape component. Fields are large. Hedges on banks are by far the most common type of boundary, but towards the western part of the area mortared walls form a small but significant element. Hedges are generally well maintained. Mortared stone cylindrical gateposts are a feature of the landscape, particularly towards the area's western end. Non-agricultural landscape components are not numerous, but included small reservoirs, sites of dismantled oil storage tanks and telecommunication masts. There are numerous archaeological sites within this area, but they are not prominent landscape features and therefore do not form major components of the historic landscape. Nevertheless they include: several bronze age burial mounds, bronze age standing stones, bronze age burnt mounds, many prehistoric flintworking sites, sites of medieval settlements, old cottages and sites of houses at Pwllcrochan, limekilns and quarries, and 20th century defensive structures.

Definition of this area to the north where it borders the waterway or an oil refinery and power station is very good. To the east and west definition is less clear, and to the south where the character area has yet to be delineated boundary definition is poor, with no hard-edged border but rather a wide zone of change.

**Sources:** Angle parish tithe map 1842; Hundleton Parish tithe map 1841; Jones 1987; Kisson 1993; Lockley 1977; Ludlow 1993; Ludlow 1998; Nash 1986; NLW VOL. 1; NMR Cawdor Map Book, 1787; Owen 1918; PRO D/EE/7/338; PRO D/LLC/674; PRO D/ANGLE/5; PRO D/ANGLE/92; PRO HDX/198/2; PRO D/BUSH/6142 & 144; Pwllcrochan Parish tithe map 1840; Ramsey 1999; Rhoscrowther Parish tithe map; Walker 1950



## **PEMBROKE POWER STATION**

**GRID REFERENCE: SM 932025**

**AREA IN HECTARES: 91**

### **Historic Background**

This historic landscape character area is entirely occupied by Pembroke Power Station. It lies within the eastern half of Pwllcrochan parish, whose church in the medieval period was a possession of the Benedictine Monkton Priory, at Pembroke. However, it did not form a manorial centre, and lands in this part of the parish may have been part of the greater Manor of Castlemartin, a demesne manor of the Lordship of Pembroke, and the most important holding appurtenant to Pembroke Castle. Prior to the construction of the power station much of the area was occupied by an inlet and was intertidal, comprising mudflats and saltmarsh. The coastline of this inlet appears to have remained stable throughout the historic period. The remainder of the area comprised farms with regularly shaped fields. The power station was commissioned in the early 1960s and decommissioned in the 1990s. It is currently being demolished.

### **Description and essential historic landscape components**

This historic landscape character area comprises the partially demolished oil-fired power station. In order to build the station a large platform was constructed by excavating a deep scoop into farmland and dumping the resulting waste over the head of a small tidal inlet of the Pembroke River. The resulting platform was large enough to accommodate two stations, should a second one have been required. The platform will remain after demolition.

Even after total demolition, this area will contrast sharply with neighbouring farmland.

Sources: Jones 1987; Laws 1909; Ludlow 1998; Murphy 1995; Owen 1918; Pwllcrochan Parish Tithe Map 1840; PRO D/ANGLE/92; PRO HDX/198/2

# **GREENLINK INTERCONNECTOR, PEMBROKESHIRE:**

## **HISTORIC ENVIRONMENT DESK- BASED ASSESSMENT UPDATE**

RHIF YR ADRODDIAD / REPORT NO. 2018/44  
RHIF YR DIGWYDDIAD / EVENT RECORD NO. 113201  
Hydref 2018  
October 2018

Paratowyd yr adroddiad hwn gan / This report has been prepared by

**James Meek**

Swydd / Position: **Head of DAT Archaeological Services**

Llofnod / Signature .....  ..... Dyddiad / Date 02/10/2018

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith  
This report has been checked and approved by

**Fran Murphy**

ar ran Ymddiriedolaeth Archaeolegol Dyfed Cyf.  
on behalf of Dyfed Archaeological Trust Ltd.

Swydd / Position: **Project Manager, DAT Archaeological Services**

Llofnod / Signature ..... Dyddiad / Date 20 Nov 2017

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau  
sydd gennych ar gynnwys neu strwythur yr adroddiad hwn

As part of our desire to provide a quality service we would welcome any  
comments you may have on the content or presentation of this report

