COASTAL DEFENCE REALIGNMENT, ABEREIDDY, PEMBROKESHIRE: HISTORIC ENVIRONMENT APPRAISAL 2012



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COASTAL DEFENCE REALIGNMENT, ABEREIDDY, PEMBROKESHIRE: HISTORIC ENVIRONMENT APPRAISAL

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SUMMARY

Pembrokeshire County Council and Royal Haskoning are proposing coastal defences realignment works on the seafront at Abereiddy, north Pembrokeshire (SM 7970 3126). A scoping report has already been prepared and in response to this the archaeological advisors to the local planning authority recommended that an Historic Environment Appraisal be submitted alongside the planning application. Consequently, Pembrokeshire County Council commissioned Dyfed Archaeological Trust Field Services to undertake the appraisal in October 2012.

The historic environment appraisal has identified a total of 67 recorded sites of archaeological and historic interest within the study area (a 1km radius of the proposed works), plus one additional site identified during the course of this study. These include one Scheduled Ancient Monument and 12 Grade II Listed Buildings. Part of the study area also lies within an Historic Landscape Character Area.

No designated sites will be affected by the proposed development and it is not considered to have a significant impact on the current archaeological and historic landscape setting.

Of the remaining non-designated sites only three may be affected by the proposed works. The additional site identified during this study (NS01) which consists of a small 19th century building and adjoining enclosures, lies on the line of the proposed works and therefore should remains exist, it is likely they could be exposed, damaged or destroyed by the proposed groundworks. No remains survive above-ground, the below-ground potential is considered to be low to medium and the site itself is thought to be of local archaeological importance.

The standing remains of a 19th century limekiln (PRN 15982) lie in close proximity to the site, and the potential for further below-ground remains associated with this site are considered to be high. Although above-ground remains should not be directly affected, there is the potential for the movement of machinery and materials and vibration from groundworks to damage this site. The extent of the potential below-ground remains is also unknown, therefore there is also the potential for below-ground remains to be affected by the groundworks. The limekiln complex as a whole is considered to be of local archaeological significance.

There is the potential for peat deposits containing palaeo-environmental remains to exist underlying visible beach deposits that could be exposed by the proposed groundworks. The potential for below-ground remains to survive is considered to be low to medium, but the significance of palaeo-environmental information contained within these deposits is considered to be medium.

It is recommended that an archaeological watching brief would be sufficient to record any archaeological features or deposits associated with these sites, should they be exposed during the course of the proposed groundworks.

1. INTRODUCTION

1.1 Project Proposals and Commission

1.1.1 Coastal defence realignment and associated works are proposed by Pembrokeshire County Council/Royal Haskoning on the seafront at Abereiddy, north Pembrokeshire (NGR SM 7970 3126). A scoping report has already been prepared for the proposed works. In response to this the archaeological advisors to the local planning authority recommended that an historic environment appraisal be submitted along the planning application "in order to provide further information on the archaeological potential and the impact of the proposed development on that resource".

1.1.2 Pembrokeshire County Council (hereafter PCC) commissioned Dyfed Archaeological Trust Field Services (DAT-FS) to undertake an historic environment appraisal on the proposed works in October 2012.

1.1.3 The aim of the historic environment appraisal is to clarify the known archaeological resource in the application area and to predict the effect of the proposed development upon it. In areas where the archaeological resource cannot be determined using current information, it will indicate the requirements for further investigation. The assessment report will therefore be the principal document informing on the archaeological resource, during the determination of the planning application.

1.2 Scope of the project

1.2.1 The assessment comprised the examination and collation of available sources of information including:

• Information on known archaeological and historic sites recorded on the regional Historic Environment Record¹ (HER), including a search of available cartographic and pictorial sources, published and unpublished works, aerial photographs and any relevant web-based information;

• Relevant information held by the Royal Commission on Ancient and Historic Monuments in Wales (RCAHMW) via the COFLEIN online computer database and information on Conservation Areas or Historic Landscape Areas within or in the vicinity of the site area from information held by Dyfed Archaeological Trust and CCW;

• A search of Cadw's Listed Building records and Schedule of Ancient Monuments for designated buildings and sites of archaeological and historical importance lying on or in close proximity to the site;

• A site visit to determine the presence or absence of visible archaeology or evidence for previous ground disturbance within the proposed development area.

1.2.2 The results of the assessment contained in this report are intended to identify the extent and character of the known and potential archaeological resource, to assess the likely and potential impacts of any development on that resource and, if required, to outline a possible programme of further works to mitigate those impacts. The assessment should be seen only as the first stage of the archaeological process and does not preclude the possibility that further archaeological input may be required prior to, or during, any proposed development.

¹ Held and managed by Dyfed Archaeological Trust, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF.

1.2.3 A study area of 1km radius from the area of proposed development has been used to provide an indication of the known and potential archaeological remains in proximity to the proposed development area.

1.3 Abbreviations used in this report

1.3.1 All sites recorded on the regional HER are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites recorded by the Royal Commission on the Ancient and Historic Monuments of Wales (RCAHMW) are identified by their National Primary Record Number (NPRN). Altitude is expressed to Ordnance Datum (OD). Pembrokeshire County Council (PCC). Dyfed Archaeological Trust Field Services (DAT-FS).

1.4 Illustrations

1.4.1 Photographic images and printed map extracts are to be found throughout the report. Note that the printed map extracts are not necessarily reproduced to their original scale and are illustrative only.

1.5 Timeline

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

Period	Approximate date	
Palaeolithic -	<i>c</i> .450,000 – 10,000 BC	
Mesolithic –	<i>c</i> . 10,000 – 4400 BC	Pre
Neolithic –	<i>c</i> .4400 – 2300 BC	Prehistoric
Bronze Age –	<i>c</i> .2300 – 700 BC	ori
Iron Age –	<i>c</i> .700 BC – AD 43	n
Roman (Romano-British) Period –	AD 43 - <i>c.</i> AD 410	
Post-Roman / Early Medieval Period -	<i>c</i> . AD 410 – AD 1086	_
Medieval Period –	1086 - 1536	Hist
Post-Medieval Period ² –	1536 - 1750	Historic
Industrial Period –	1750 - 1899	C
Modern –	20th century onwards	

Table 1: Archaeological and Historical Timeline for Wales

² 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

2. SITE LOCATION AND TOPOGRAPHY

2.1 Abereiddy is a small hamlet on the northwest coast of Pembrokeshire, some 7.5km to the northeast of St David's. The hamlet sits in front of a small sand and shingle bay, flanked on both sides by rising rocky cliff faces, those to the north having been extensively quarried. The bay is fed by a small stream from the east running along the flat and occasionally boggy shallow valley floor. The surrounding landscape is predominantly agricultural, largely pastoral with some arable land. It has been divided up into medium-sized irregular fields, relatively unchanged since it was first recorded on tithe maps of the 1840s. The predominant settlement pattern in this area is one of small hamlets and dispersed farmsteads, again little changed since it was recorded on the tithe maps. Remnants of former extraction industries are also still clearly visible in the landscape, largely to the north where the former Porthgain slate quarries have left behind a quarried lake – the 'blue lagoon', and ruins of former quarry buildings and tramways.

2.2 The current sea defences front a small shelf at the rear of the shingle beach, backed by an open area used for car parking. The defences currently consist of alternating timber sleepers and concrete blocks attached to iron beams driven into the ground, backed by a concrete shoulder. The occasional timber sleeper and concrete block has fallen away exposing the shingle deposits behind. These defences only extend roughly halfway across the bay, including a concrete slipway between the car park and the shingle beach. The northern half of the bay is undefended with the natural deposits exposed in a low and presumably actively eroding shelf.

2.2 The underlying geology of this area consists of shale mudstones, largely of undifferentiated Caradoc rocks with some slate formations along the northern side of the bay. East – west bands of rhyolitic pyroclastic rock (volcanic granite-type rock), and occasionally limestone and microgranite, also occur throughout this area, forming much of the exposed cliff faces visible along this stretch of coastline. Within the bay this is overlaid with sand under the shingle beach, backed by gravels under the car park with mixed sands, silts and gravels along the shallow valley floor behind.



Figure 1: Location map (site shown as red dot) based on the Ordnance Survey.

Reproduced from the 1987 Ordnance Survey 1:50,000 scale Landranger Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Dyfed Archaeological Trust, The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF. Licence No AL51842A

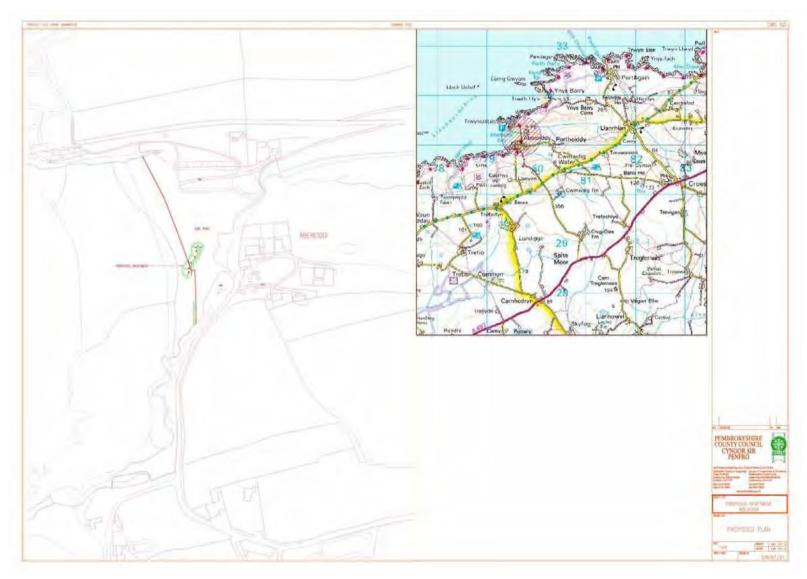


Figure 2: Site location plan with the area of proposed development outlined in green. Map by provided by Pembrokeshire County Council.

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Designated Sites and Listed Buildings (Figures 3 & 4)

3.1.1 No scheduled ancient monuments (SAMs) lie within the boundaries of the proposed development site. One Scheduled Ancient Monument lies within the 1km radius study area around the proposed development. This lies to the southwest of the proposed development site, comprising adjoining Iron Age promontory forts (800m to the southwest).

3.1.2 There are no Listed Buildings within the boundaries of the proposed development site, although several listed buildings lie close by. In total there are 12 Listed Buildings within the wider study area (Table 2). These consist of cottages, houses and farm buildings as well as a lookout post.

Site/Building Name	PRN	Cadw Ref.	NGR	Designation
Caerau Promontory Forts	2735 & 2907	PE392	SM 788 307	SAM
Abereiddy Beach Cottage	58657	12404	SM 79786 31276	Grade II Listed
Swn y Mor cottage, Abereiddy	58658	12405 / 87503	SM 79795 31290	Grade II Listed
Bank House, Abereiddy	58659	12406	SM 79820 31241	Grade II Listed
Bank Cottage, Abereiddy	58660	12407	SM 79845 31239	Grade II Listed
Abereiddy Tower	2732 / 58661	12408	SM 79313 31500	Grade II Listed
Melin Abereiddy (watermill)	58662	12409	SM 79623 31001	Grade II Listed
The Cwm (cottage), Abereiddy	58663	12410	SM 79652 31001	Grade II Listed
Porthiddy Farmhouse (East)	58676	12424	SM 80395 31014	Grade II Listed
Porthiddy Farm outbuildings (south side of fmyd)	58677	12425	SM 80373 30997	Grade II Listed
Porthiddy Farm range (along roadside)	58678	12426	SM 80357 30995	Grade II Listed
Llanfyrn-y-fran farm, cartshed and attached pigsties	26661	12673	SM 79956 30487	Grade II Listed
Llanfyrn-y-fran farm, outbuilding at S end of range	26662	12674	SM 79999 30438	Grade II Listed

Table 2: Designated sites and listed buildings within the study area

3.1.3 Part of the landscape within the study area, to the southwest of the site, lies within the Historic Landscape Character Area (HLCA), No. 288 – Treleddyd-Tretio-Caerfarchell, which is part of the St David's Peninsula and Ramsey Island Landscape of Outstanding Historic Interest (HLW (D) 4). This is a non-statutory designation and advisory only, and the site itself lies outside the boundaries of both the Landscape of Outstanding Historic Interest and the Historic Landscape Character Area.

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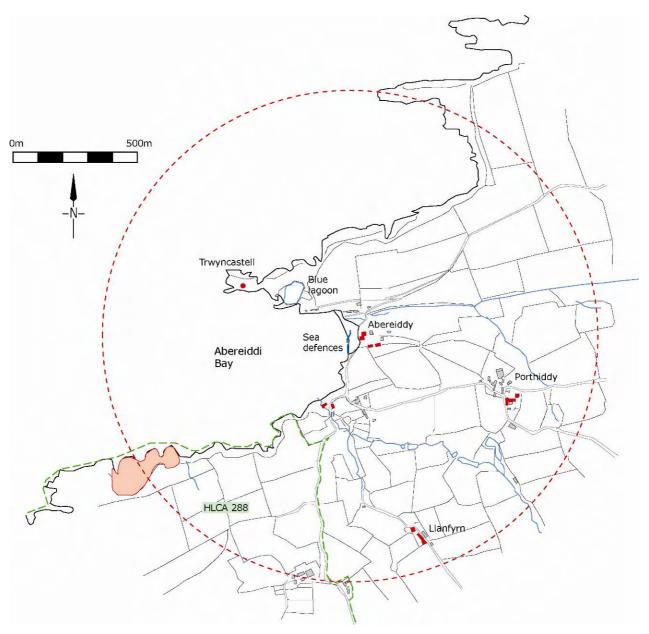


Figure 3: Location of Listed Buildings (red) and Scheduled Ancient Monument (orange) within the study area (labelled on Figure 4). The boundary of the Historic Landscape Character Area (HLCA) is shown in green. The study area (1km radius) is outlined in red. Extent of listed and scheduled areas is indicative only, for the true extents please contact Cadw.

3.2 Known Archaeological Remains

3.2.1 A search of the Regional Historic Environment Record database revealed a total of 65 sites of archaeological and historic interest located within the 1km radius study area (Table 3) around the proposed development area, although four of these are duplicated records. None of these site lie directly within the area of the proposed works. One site, PRN 15982, the remains of a post-medieval lime kiln lies in close proximity to the proposed coastal defence scheme. Several sites lie within 100m of the site (see Figure 4), which include a second limekiln (PRN 43260), several dwellings (PRNs 6384, 58657-58660) which form part of the small settlement of Abereiddy (PRNs 6881 & 6882) and remains associated with the Porthgain industrial complex (PRN 1240).

3.2.2 A search of the same study area was undertaken in the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) National Monument Record (NMR) (Table 4). This search returned fifteen known sites within the study area. Thirteen of these refer to the same sites as recorded in the Regional HER, the two sites not recorded on the HER comprise a row of cottages (NPRN 21585) 230m to the south of the proposed works and a ship wreck (NPRN 273348) out to sea somewhere close to Trwyncastell, the rocky promontory to the northwest of the site.

3.2.3 Historical research and a site visit recorded only one new site (NS01 – Figure 4; Table 5) that may be affected by the works, not previously recorded on either the HER or the NMR. This comprises a small 19th and early 20th century building and enclosures on the south side of the beach, presumably associated with adjacent lime kilns (PRN 15982). Nothing remains of this site above-ground.

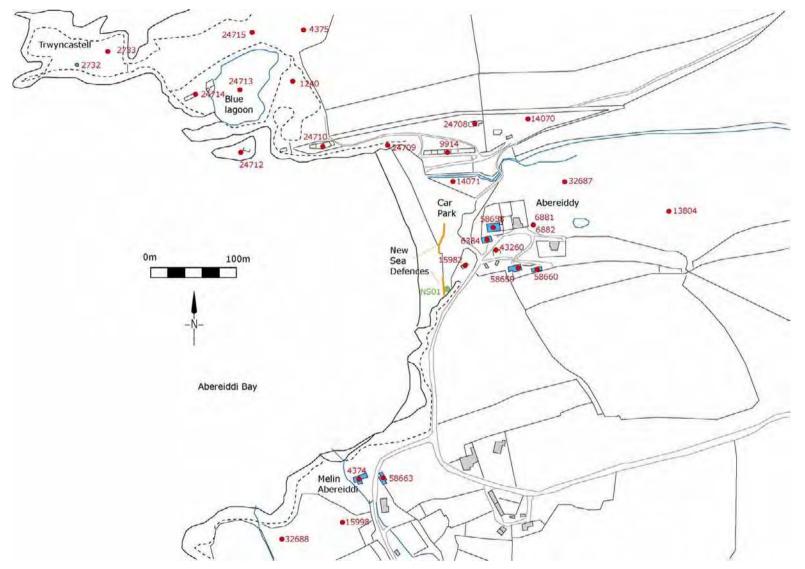


Figure 4: Close-up map of the area surrounding the proposed development, showing the location of sites recorded on the regional HER (in red, labelled by PRN), Listed buildings (in blue, labelled by PRN), and the newly identified site NS01 (in green).

PRN	Name	Site Type	Period	Grid reference	Brief Description
1240	Abereiddy	Industrial Site	Post-medieval	SM797314	Houses, offices and other buildings of the Abereiddy/Porth gain quarry complex not covered by PRN 4375.
2732	Abereiddy Tower	Beacon	Post-medieval	SM79353147	Lookout Post. This is a circular stone built building with a single entrance, windows and a fireplace. Evidence of a roof survive and signs of a plaster floor. Grade II listed.
2733	Trwyn; Trwyn y Castell	Hillfort	Iron Age	SM79403149	This site is multi vallate with the outer promontory protected by three or four ramparts. Further inland a single bank & ditch cuts off the outer promontory from the mainland. There is possibly another lost ditch between this and the mainland which has been quarried away.
2735	Caer Aber pwll; Caerau	Hillfort	Iron Age	SM788307	Revetment wall seen in bank where eroded by path
2907	Little Aber pwll; Caerau	Hillfort	Iron Age	SM790308	Small area enclosed relative to length of enclosing bank probably due to erosion. Revetment wall seen in bank where eroded by path.
4374	Abereiddy Mill	Mill	Post-medieval	SM79643100	Two storey stone built building, slate roof cemented over. Grade II listed (duplicated in PRN 58662)
4375	Porth-Gain Quarries	Quarry	Post-medieval	SM79583153	
6384	Beach Cottage	Cottage	Post-medieval	SM79793127	
6881	The Villa	Settlement	Post-medieval	SM79843129	There are six lived-in cottages and a scattering of ruined walls, potentially further dwellings.
6882	Abereiddy	Settlement	Post-medieval	SM79803129	Abereiddy Village. There are six lived-in cottages and a scattering of ruined walls, potentially further dwellings in the fields adjacent to the current standing cottages.
8400	Porthiddy	Earthwork	Unknown	SM803310	Earthwork of unknown significance.
9914	Abereiddy; The Row; The Street	Village, Terrace	Post-medieval	SM79823130	Duplication of PRN 6882
10388	Ynys Barry	Cell	Medieval	SM8032	
13804	Abereiddy Porteiddy and Cyffredin Commons	Common Land	Post-medieval, Medieval	SM800313	
14033	Abereiddy Common	Common Land	Post-medieval, Medieval	SM797312	

Table 3: Sites recorded in the regional HER (PRN)

PRN	Name	Site Type	Period	Grid reference	Brief Description
14034	Abereiddy	Common Land	Post-medieval, Medieval	SM796305	
14070	Part of Abereiddy Common	Common Land	Post-medieval, Medieval	SM798314	
14071	Abereiddy Common	Common Land	Post-medieval, Medieval	SM7974431375	
14259	Carn Lwyd	Clearance Cairn	Unknown	SM7967631602	An oval mound of assorted stones, 7m long, 5m wide and 0.5m high, resulting from field clearance.
14260	Traeth Llyfn	Round Barrow	Bronze Age	SM8005731654	A circular mound of stones, 0.75m high and 20m in diameter, possibly originally a round barrow which has since become the focus for clearance.
14261	Traeth Llyfn	Cairnfield	Modern	SM80133176	Small cairns, modern, on cliff edge from recent agricultural clearance.
14262	Traeth Llyfn	Boundary Bank	Unknown	SM80223213	Stone built bank, now beyond limits of cultivation but similar to nearby banks currently in use.
15982		Lime Kiln	Post-medieval	SM79753126	D-shaped, stone built lime kiln, approximately 4m high. Two tap holes, the east one has collapsed. Pot open, approximately 3m in diameter, with evidence of lining in situ.
15998		Quarry	Post-medieval	SM7960230950	Quarry approximately 20m by 10m and 6m deep.
16002		Quarry	Post-medieval	SM7983630671	Slate quarry c. 30m by 20m by 10m deep cut into north facing slopes of Llanvirn Farm. Recorded on the 1st Edition OS map as `old quarry' although it was not recorded on the tithe map of 1842. The southernmost of a series of three small quarries that run in a line towards the major 19 th century quarrying centre at Aber-Eiddy.
16759	Porteiddy Cottage	Cottage	Post-medieval	SM803311	Described as an intact cottage by RCAHM in 1982.
17904	Ffynnon-Barcut	Well	Post-medieval	SM80403064	
23803	Ynys Barry	Quarry	Post-medieval	SM8029731856	Not identified during field walking, either infilled or destroyed by coastal erosion.
24708	Porthgain Slate Quarry	Dwelling	Post-medieval	SM79783140	Former dwelling at the Porthgain industrial complex.
24709	Porthgain Slate Quarry Powder Store	Storehouse	Post-medieval	SM7967331391	
24710	Porthgain Slate Quarry Quarrymen's Cottages	Cottage	Post-medieval	SM79583138	A rectilinear terrace of at least two cottages, measuring approximately 4.2m x 27m. The more westerly of the two buildings in this terrace appears to be the older as it is butted up against by the other. The walls stand in places up to 1.3 metres high. There are ancillary buildings on the cliff-edge to the south.

PRN	Name	Site Type	Period	Grid reference	Brief Description
24711	Porthgain Slate Quarry Slate Processing Works	Slate Processing Works	Post-medieval	SM79503139	
24712	Porthgain Slate Quarry Statue	Statue	Post-medieval	SM79503139	
24713	Porthgain Slate Quarry Pit (Abereiddy)	Quarry	Post-medieval	SM79503146	Flooded after quarrying to create a lagoon.
24714	Porthgain Slate Quarry Engine House and Lift	Engine House	Post-medieval	SM79453146	
24715	Porthgain Slate Quarry	Ditch	Post-medieval	SM7950731513	Ditch running across headland, approximately 1.5m deep and 2m wide. Associated with the quarry works?
24721	Porthgain Slate Quarry Tramway	Tramway	Post-medieval	SM8032	
26661	Llanfryn-y-Fran	Pigsty, Outbuilding	Post-medieval	SM7995630487	Early 19 th century cartshed and pigsties.
26662	Llanfryn-y-Fran	Outbuilding	Post-medieval	SM7999930438	Dated 1814. Outbuilding in rubble stone with gravelled slate roof.
32599	Caerau	Gravel Pit	Post-medieval	SM79263077	Not identified in the field.
32687	Aber Eiddy	Peat Bog	Unknown	SM79883134	Small valley bottom peat bog.
32688	Cyffredin	Quarry	Unknown	SM7953130933	Small quarry approximately 10m by 10m and 6m high.
32689	Cyffredin	Building	Unknown	SM79533088	Stone wall in corner of field near stream, possible remains of a building.
41426	Llanvirn Farm	Quarry	Post Medieval	SM79843067	Duplication of PRN 16002
41427	Llanvirn Farm	Quarry	Post Medieval	SM79783076	Large, irregularly shaped slate quarry c.50m by 20m by 5m cut into the north facing slopes of Llanvirn Farm. First recorded on the tithe survey of 1842 when it was described as `old quarries'. It is the oldest of three small quarries which run in a line towards the major 19 th century quarrying centre at Aber-Eiddy. Reputedly the original type-site for the geological series known as `Llanvirn Slate'. The remnants of a stone and earth wall survive along its northern edge.
41438	Llanvirn Farm	Quarry	Post Medieval	SM79763084	The latest and smallest of three former slate quarries cut into the north facing slopes of Llanvirn Farm and running down towards the major quarrying centre at Aber-Eiddy.

PRN	Name	Site Type	Period	Grid reference	Brief Description
41439	Llanvirn Farm	Farmstead	Post Medieval	SM79983047	Farmhouse and buildings, situated on a plateau overlooking Aber Eiddy Bay. First recorded on the tithe survey of 1840. Arranged as two lines of interfacing buildings on opposite sides of a central trackway, with the house, carthouse, stables and a barn to the south west, the pigsty, cowhouse a barn and an area of ruinous smaller buildings including stone-built kennels to the north east. All of the buildings have undergone considerable modification.
41440	Llanvirn Farm	Cart Shed	Post Medieval	SM79963047	Small, detached single-storey cartshed at the north western end of the farm buildings at Llanvirn. Constructed of random rubble with dressed stone quoins and a gabled slate roof. Recorded on the tithe survey of 1840.
41441	Llanvirn Farm	Pigsty	Post Medieval	SM80003048	One and a half-storey random rubble L-shaped building with a gabled slate roof. The northernmost building of the north eastern range of farm buildings at Llanvirn. Dovecote on the western gable wall with a triangular arrangement of nesting boxes. Recorded on the tithe survey of 1840.
41442	Llanvirn Farm	Farmhouse	Post Medieval	SM79963049	This was originally the record of a farmhouse and cottage. The cottage now recorded separately as PRN 47595.
41443	Llanvirn Farm	Cow Shed	Post Medieval	SM79983047	One and a half storey random rubble cowhouse with a gabled slate roof at the western end of the south western range of farm buildings at Llanvirn. Accessed by opposing single width doors positioned centrally. Openings have brick voussoired heads and slate sills. Whitewashed interior. No original fittings survive. First recorded on the 1st edition Ordnance Survey map of 1891.
41444	Llanvirn Farm	Barn	Post Medieval	SM79993045	Fine, two-storey barn at the eastern end of the south western range of farm buildings at Llanvirn. Coursed slate and rubble construction with dressed stone quoins and a gabled slate roof. Accessed via opposing entrances. Entrances are headed with stone voussoirs. The roof has collapsed. First recorded in the tithe survey of 1840.
41445	Llanvirn Farm	Stables	Post Medieval	SM80013047	Two storey stable block at the eastern end of the north eastern range of farm buildings at Llanvirn. Random rubble construction with brick quoins and a gabled slate roof. Accessed at ground floor level via a centrally positioned brick voussoired, single-width door in the southern wall. Accessed at first floor level via a stone and brick stairway attached to the eastern gable wall,. The openings have obviously been modified since its original construction.
43260		Lime Kiln	Post-medieval	SM7979531263	A lime kiln situated east of road leading to car park at Abereiddy. Kiln has two sheds built either side of it only western section visible. Crucible collapsed.
47595	Llanvirn Farm	Cottage	Post Medieval	SM79963049	Cottage adjoining the farmhouse at the western end of the south western range of farm buildings at Llanvirn. The cottage was built by the time of the 1st edition Ordnance Survey map in 1891. The interior has undergone considerable modification.
58657	Abereiddy Beach	Cottage	Post-medieval	SM7978631276	Grade II listed cottage

PRN	Name	Site Type	Period	Grid reference	Brief Description
58658	Swn-y-Mor	Cottage	Post-medieval	SM7979531290	Grade II listed cottage
58659	Bank House, Abereiddy	House	Post-medieval	SM7982031241	Grade II listed house
58660	Bank Cottage	Cottage	Post-medieval	SM7984531239	Grade II listed cottage
58661	Abereiddy Tower	Tower	Post-medieval	SM7931331500	Grade II listed tower. Duplication of PRN 2732.
58662	Melin Abereiddy	Watermill	Post-medieval	SM7962331001	Grade II listed watermill. Appears to be a duplication of PRN 4374.
58663	The Cwm, Abereiddy	Cottage	Post-medieval	SM7965231001	Grade II listed cottage
58676	Porthiddy Farmhouse (East)	Farmhouse	Post-medieval	SM8039531014	Grade II listed farmhouse
58677	Range of Outbuildings, Porthiddy Farmhouse (East)	Farm Outbuildings	Post-medieval	SM8037330997	Grade II listed farm outbuildings
58678	Range of Outbuildings, Porthiddy Farmhouse (East)	Farm	Post-medieval	SM8035730995	Grade II listed farm

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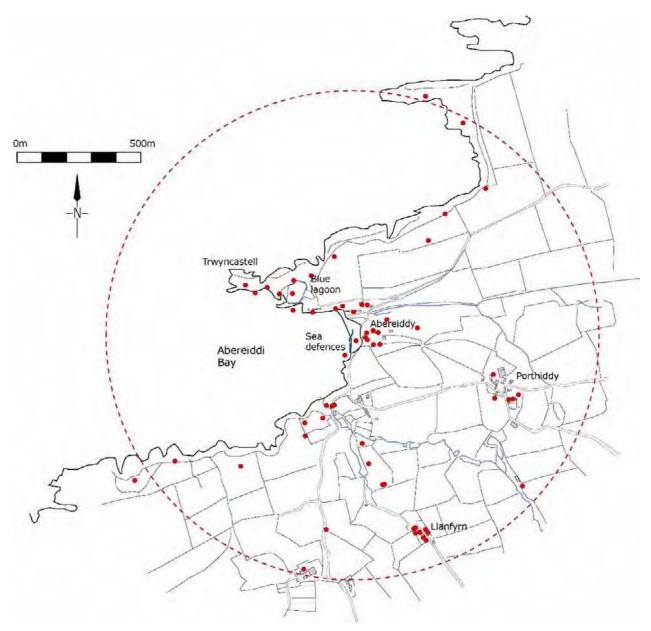


Figure 5: Location of sites recorded on the regional HER (red dots) within the study area. The sites closest to the proposed development are labelled on Figure 4.

NPRN	PRN	Name	Site Type	Period	Grid reference	Brief Description
21585		Abereiddy Cottages	House	Post Medieval	SM79803095	
21606	58659	Bank Farm, Abereiddy	Farmhouse	Post Medieval; 18 th Century	SM7982031240	18 th - 19 th century. 1 storey and attic. Colour-washed stone rubble walls. Centre gabled porch.
21607	58660	Bank House, Abereiddy	Dwelling	Post Medieval; 18 th Century	SM7984331238	18 th - 19 th century. 2 storey. Colour-washed stone rubble. Front garden enclosed by stone rubble walls
21618	58657	Beacvh Cottage, Abereiddy	House	Post Medieval; 18 th Century	SM7978531275	18 th - 19 th century. Originally pair of cottages. Stone rubble, cement grouted, slate gabled roof.
30084	16759	Portheiddy Cottage, Abereiddy	Building	Post Medieval	SM803311	2-storey cottage, pitched roof with gable end stacks. 2 window front; 2 dormers. Central entrance.
30373	6881	The Villa, Abereiddy	Dwelling	Post Medieval; 18 th Century	SM7982231290	18 th and 19 th century, 1 storey, pebbledash, small stack each end, centre doorway.
30374	58658	Swn-y-mor, Abereiddy	House	Post Medieval; 18 th Century	SM7979331289	18 th - 19 th century, colour washed stone rubble. Internal chimney breast, white washed garden wall.
40224	4374 / 58662	Abereiddy Mill	Corn Mill	Post Medieval	SM79643100	Gutted. Said to have had overshot wheel. 18 th 19 th century. 2-storey. Outshut. Loft. Remains of leat.
40620	4375 / 24713	Porth-Gain Slate Quarries; St Brides Slate Quarries	Slate Quarry	Post Medieval	SM79503146	The 'Blue Lagoon' at Abereiddy was formerly the St Brides Slate quarry. The Porthgain quarries extracted stone not only from the headland immediately above the village, but also from half a kilometre or so west at the headland of Penclegyr, and west again on this headland above Abereiddy village. Ruins survive overlooking the pool of the former site of the engine house and other buildings associated with the quarry operations. Part of Abereiddy industrial complex (Nprn101219). Connected to Porth-gain harbour by tramway (Nprn400060).
94242	2735	Caerau Promontory fort: Caer Aber Pwll	Promontory Fort	Iron Age	SM78833077	The complex defences at Caer Aber Pwll (Caerau) define a simple promontory fort to the east and a more heavily defended promontory fort on the west, both utilising the defensive potentials of the steep coastal cliffs. The western fort contains at least one building platform and is enclosed by a complex of up to four banks and ditches thought to represent at least two periods of construction, of uncertain relation. The main, inturned, gateway can be made out on the far side of the earthworks. A second enclosure on the east, about 48m by 34m, may be a fragment of an early enclosure, isolated by redevelopment, an annex, or a separate and later enclosure butting onto the primary work.

NPRN	PRN	Name	Site Type	Period	Grid reference	Brief Description
101219	1240	Abereiddy Industrial Complex	Industrial Site	Post Medieval	SM797314	The Abereiddy industrial complex includes the St Brides Slate Quarries (NPRN 40620) linked to features at Porth-Gain (NPRN 33206) by a tramway (NPRN 400060). It is part of the wider Porthgain Industrial complex that also includes the headland at Penclegyr.
273348		J. Percy Bartram	Wreck	Modern	SM7974931801	The character and extent of archaeological remains is presently unknown but may relate to the loss of the J. PERCY BARTRAM
						This was a wooden schooner built in 1891 and registered at St John's Newfoundland. It seems likely that the vessel was named after Joseph Percy Bartram who owned a waterfront property at Bridgport, Connecticut, from 1904 onwards. At time of loss on 31 July 1910, the vessel was carrying coal from Glasgow to its home port when it stranded 1 miles south of Porthgain. A wreck was reported close to Trwyncastell in 1976.
305402	2907	Caerau Promontory Forts: Little Aber Pwll	Promontory Fort	Iron Age	SM78993082	An area of clifftop, roughly 50m north-south by 40m, delimited by a crescentic bank, having an entrance at its eastern terminal; the site lies about 100m east of a similar enclosure at the centre of a complex of banks and ditches (Nprn94242) that extend to within 20m of it.
400060	24724	Porth-Gain to Abereiddy Tramway	Tramway	Post Medieval	SM80983150	A c.3.14km tramway running between Porth-gain & Abereiddy industrial complexes (Nprn33206, 101219). Portrayed as intact, but disused by OS County series (Pembroke. VIII.14; XV.1 1889).
401457	6882 / 9914	Abereiddy	Village	Multiperiod	SM797312	

Table 5: Additional site within the study area identified during this survey

ID	Name	Site Type	Period	Grid Reference	Brief Description
NS01	Abereiddy	Structure & Enclosures	Post-Medieval	SM79733121	A small rectangular building, orientated NW – SE, with two adjacent enclosures to the south-west, built against the low cliff face. Visible on the 1 st (1889) and 2 nd (1907) edition OS maps. Presumably associated with adjacent limekiln complex (PRN 15982).

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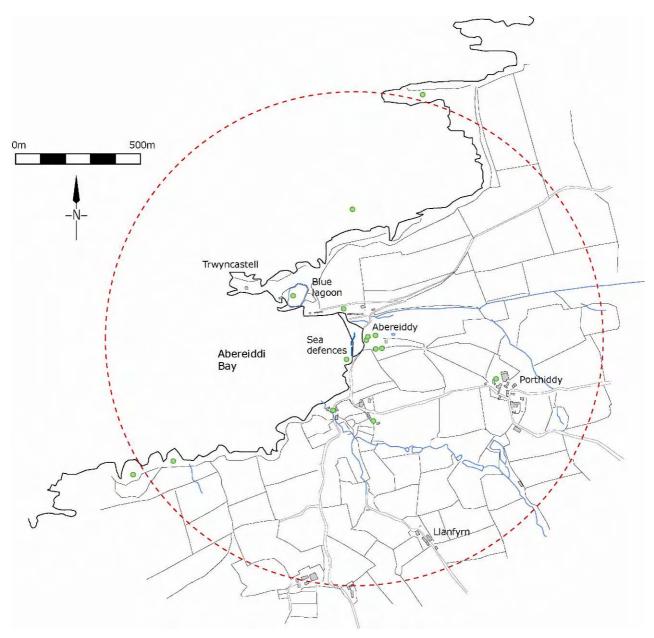


Figure 6: Location map showing the sites recorded on the NMR. These sites largely mirror those recorded on the HER and labelled by PRN on Figure 4.

3.3 Historical Development

Prehistoric

3.3.1 Around 500m to the northeast of the proposed works is a 20m wide circular spread of stones that is believed to represent the remains of a Bronze Age round barrow (PRN 14260), which has since become the focus for stones cleared from the surrounding field (a clearance cairn). These round barrows are generally found to be burial sites of Bronze Age date, largely, although certainly not exclusively, sited on prominent ground. Although this is the only Bronze Age site recorded within the study area there is a large enough concentration of Bronze Age ritual and funerary monuments, and the occasional occupation site, within just a few kilometres of the site to suggest a relatively well-populated area during the Bronze Age. The monuments consist in the main of isolated standing stones and both isolated and groups of burial mounds.

3.3.2 By the Iron Age the archaeological evidence shifts from largely funerary and ritual remains to defended enclosures with some evidence of settlement within. The steep-sided rocky promontories along this section of coastline provided relatively easily defendable locations and within the study area lie three such rocky promontories defended on their inland side by a series of banks and ditches. To the southwest lie the Caerau promontory forts (PRN 2735 & 2907), comprising two adjoining forts. The larger and more complex of the two is defended by up to four banks and ditches, which may represent two phases of construction. Up to seven building platforms have been recorded inside. A smaller enclosure lies on its eastern side. This area is now protected as a Scheduled Ancient Monument. To the north, the promontory of Trwyncastell has also been defended by three or four, now very denuded, banks and ditches (PRN 2733).

Roman

3.3.3 Activity during the Roman period in this area remains relatively enigmatic. There are no recorded archaeological sites of this period within the study area or its immediate environs. A Roman presence in the St David's/Solva area has been speculated and references by Tacitus indicate the Romans had mapped the coastline around St David's but the extent of their activity or settlement within this area is still relatively unknown.

Early Medieval

3.3.4 Although there are no recorded Early Medieval archaeological sites within the study area it is possible that it was during this period that the settlement and enclosure pattern of this area began to be established. This area lay within the medieval Cantref Pebidiog or 'Dewisland', which was held directly by the Bishops of St David's. It appears to have had settlements and religious sites already established during the early medieval period. Early medieval religious sites in particular are recorded around St David's. A Welsh system of land division based on an infield-outfield system was practised throughout much of Pebidiog until the early post-medieval period. Land was not held by individual ownership, but by two persons and their co-owners, which resulted in much of the land being relatively unenclosed and settlement based on small hamlets. This system has its origins in the Early Medieval period, and although the land has since been subdivided it is possible the current settlement pattern was also established during this period.

Medieval

3.3.5 It is likely Welsh tenurial systems, land divisions and settlement patterns persisted in this area throughout much of the Medieval period. George Owen, writing around *c*.1600, describes Pebidiog as one of the most densely populated

areas of Pembrokeshire, largely agricultural and particularly productive in barley. He also describes the landscape as relatively unenclosed. Again, there are no specific recorded archaeological sites within the study that have been dated to the medieval period, however, it is possible the existing dispersed hamlets and farmsteads of this area may have medieval forerunners. Charles, in his Placenames of Pembrokeshire (1992) records the name Portheiddi (or Porthydy), the name of the small hamlet a short distance to the east of Abereiddy, as early as 1383, although whether this refers to a settlement or topographical feature is unclear. Charles suggests the 'Porth' element of the name refers to a sea port and may therefore have originally referred to a settlement by the sea at Abereiddy, later transferred to the more inland hamlet. Abereiddy as a name is not recorded until 1599 (as Aberithi).

3.3.6 There is some suggestion of a medieval religious cell (PRN 10388) being located within a small area of higher ground to the north known as Ynys Barry. The source of this suggestion (Baring-Gould & Fisher 1908) has not been examined, therefore the extent, date and validity of this site has not been verified. The area known as Ynys Barry largely lies just to the north of the study area.

Post Medieval

3.3.7 It is likely throughout much of the medieval and post-medieval period this area remained predominantly agricultural in character. The agricultural nature of the landscape can be seen in many of the recorded archaeological sites, although concentrated on the two existing farmsteads of Llanvirn/Llanfyrn-y-fran and Porthiddy Farms where many of the traditional 19th century farm buildings are now Grade II listed (PRNs 26661, 26662, 41439 – 41445 and 58676 – 58678). As suggested by George Owen (see above) it is likely that many of the current field boundaries were established during the post-medieval period, during the 17th century or later, subdividing larger enclosures that may have been much older medieval or even early medieval in origin. The current field pattern certainly appears to be well-established by the time it is first accurately recorded on the tithe maps of the 1840s.

3.3.8 Agriculture also probably provided the first signs of industry in the area. Close to the coast on the south side of the bay is Melin Abereiddy (PRN 4374/58662), a watermill, now Grade II listed. This presumably processed the local agricultural produce, and its location in close proximity to Abereiddy Bay may indicate it exported some of its produce by sea. Although the current mill building appears to be early 19th century in date it is likely it replaced a much earlier structure. One of the earliest definite records of a mill in this location comes from Emmanuel Bowen's map of 1729 (Figure 7), although it is possible that the mill may have medieval origins.

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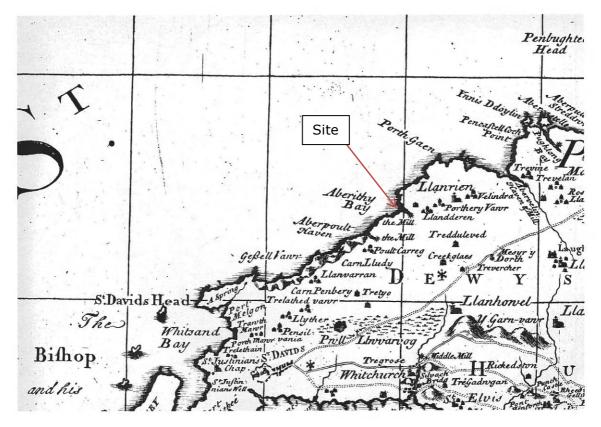


Figure 7: Extract from Emmanuel Bowens map of 1729. The mill (PRN 4374/58662) is marked, the hamlet of Abereiddy is not clearly shown, although it is possible the building marked just above the bay may depict Abereiddy. The names Llandderen and Porthery Vawr just to the east no longer appear to exist, but these may be mis-spellings or mutations of Llanfyrn and Portheiddy.

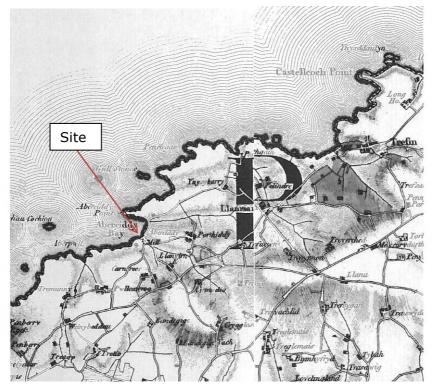


Figure 8: Extract from the Ordnance Survey 1 inch to 1 mile 'old series' map of 1819. Although faint Abereiddy is shown.

3.3.9 By the 19th century lime was seen as an import arable fertiliser. Large quantities of limestone were transported to agricultural areas where it was burnt in lime-kilns before being spread onto the land. This appears to have been the case in Abereiddy, where two 19th century limekilns can still be seen on the southern side of the bay (PRN 43260 & 15982 – Photo 5). Their location close to the sea front would suggest that the limestone was imported in by sea, although a band of limestone is present in the geological formations on the north side of the bay. The two kilns are shown as in use on the 1st edition Ordnance Survey map of 1889 (Figure 10), but appear to have gone out of use by the time of the 2nd edition map of 1907.

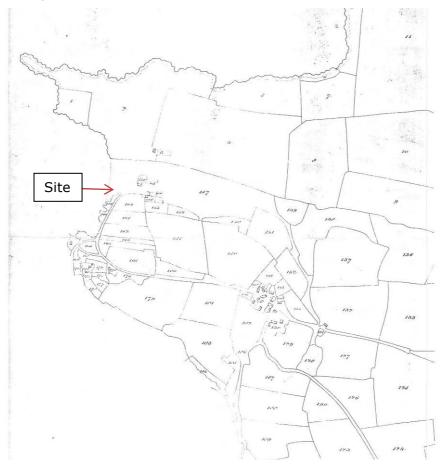


Figure 9: Extract from the Llanrian Parish tithe map of 1844

3.3.10 Small stone quarries (e.g. PRNs 15998, 23803) and gravel pits (PRN 32599) dot the local landscape, these are likely to have been used as sources of stone for local buildings and field boundaries, but during the 19th century quarrying became one the main elements, both visually and economically, in the local landscape.

3.3.11 By the 1830s local landowners and entrepreneurs were beginning to quarry the locally available slate, but these small enterprises were never particularly successful. There are a series of slate quarries in a line between Llanfryn-y-fran farm and Melin Abereiddy (PRN 15998, 16002, 32688, 41427 and 41438) on the south side of the bay, whose clustering in a relatively small area would suggest some form of organised industrialised extraction. Although still marked on the 1st edition Ordnance Survey map of 1889 (Figure 10) it is clear that most of these quarries had gone out of use, and they presumably date to this 19th century period of relatively local enterprises.

3.3.12 The Abereiddy slate quarry (PRNs 4375, 24711, 24713) had been established on the Trwyncastell headland as another of these local enterprises by 1838, when it was leased to Ward, Williams and Jones (Ratty 2008). In 1841 it changed hands, being now leased to Benjamin Hill, Robert Norman and John Barclay who had ambitious plans to expand the site (*ibid*). By 1849 quarrying was in full swing, attracting experience slate workers from North Wales. This increased the local population and new quarry workers cottages and other associated buildings (PRN 6881, 6882, 9914, 24708 – 24710) were built, including the 'Street', a row of seven stone-built cottages, now derelict but still visible on the north side of the bay (Photo 7). Further investment appears to have arrived in the early 1850s. By the late 1840s three London businessmen had taken over and greatly expanded the slate and granite quarries to the northeast at Porthgain. They also appear to have taken on Abereiddy (hence the reason it is often also referred to as Porthgain quarry) and began to develop this quarry after 1850 (NMW 1982).

3.3.13 At first the slates from this quarry, and no doubt the other local enterprises, were exported in small sloops and smacks of 30 tons from Abereiddy bay. However, as this beach was exposed to the prevailing westerly winds a tramway (PRN 24721) was built to haul the slates the 3km from the main Abereiddy quarry to the more sheltered (and developed) bay of Porthgain. A steam-powered lift (PRN 24714) was also added to haul the stone out of the quarry onto the trams. Thereafter the bay at Abereiddy appears to have returned to dealing mainly with imported limestone for the two kilns.

3.3.14 Quarrying at Abereiddy appears to have come to a close towards the end of the 19th century. Although a boom in the markets in the early years of the 20th century lead to an expansion of activity at Porthgain, the tramway from Abereiddy is marked as disused on the 2nd edition Ordnance Survey map of 1907 so it would appear these quarries did not benefit from that expansion. After the First World War the Porthgain quarries began to face strong competition from other sites that were connected to the rail network. Porthgain was not linked and had to rely on sea transport. Increasing costs meant Porthgain began to decline and finally closed in 1931. The quarry workers cottages in Abereiddy (PRN 9914) appear to have remained in occupation until at least the 1930s (Ratty 2008).

3.3.15 It is clear that the small bay itself has seen a great deal of activity in the shipping of slate, limestone and agricultural produce, but no formal structures survive on the bay itself, such as mooring posts or quaysides. It is possible the small enclosures and building identified on the southern side of the bay (NS01 – see Figure 10) are associated with this, but these too appear to have been removed, possibly during the original construction of the sea defences (Photo 2).

3.3.16 There is a possibility of unrecorded wreck sites in and around the bay. The only recorded wreck site in the study area is that of J Percy Bartram (NPRN 273348) which sank in 1910 and is believed to lie somewhere near the Trwyncastell promontory. The maritime legacy of this area also probably explains the presence of the Abereiddy Tower (PRN 2732 – Photo 8), a Grade II listed lookout tower built on Trwyncastell promontory. Its date and function are somewhat enigmatic, but it is believed to be late 18th or early 19th century and may have been built in response to potential French invasions during the Napoleonic era. During the 18th century Abereiddy was also reputed to be a favourite haunt for pirates (NLW 1982), landing their goods on the bay, which again may help explain the presence of a lookout tower on the promontory above.

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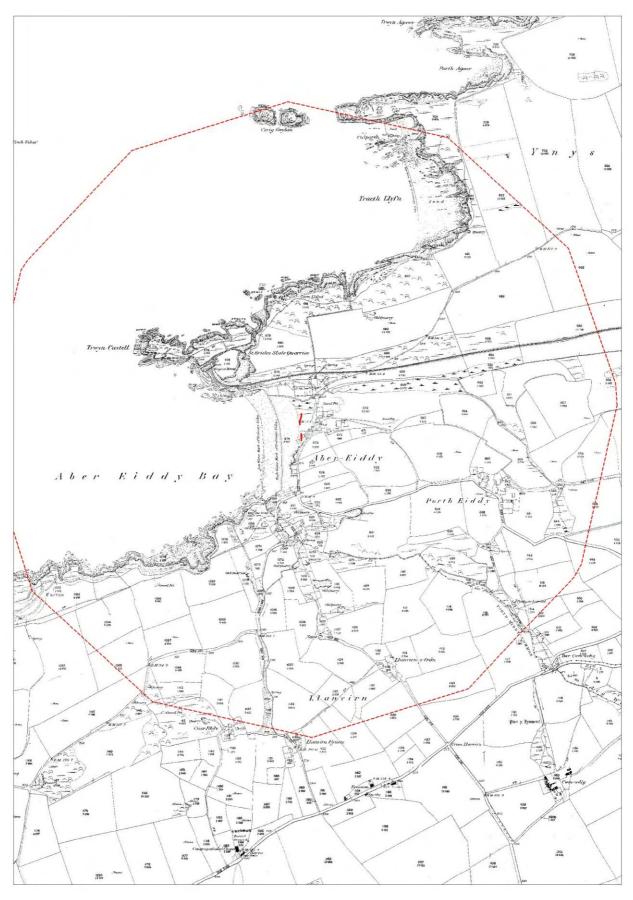


Figure 10: Extract from the 1st edition 1;2500 Ordnance Survey map of 1889. The study area and the proposed sea defences are shown in red.

3.4 Site Visit

3.4.1 A site visit was made to Abereiddy on the 13^{th} November 2012. Below are photographs taken during that site visit.



Photo 1: View northwards along the shingle bay backed by the current sea defences.



Photo 2: View south of the current sea defences. Also showing that nothing remains above ground of site NS01 which would have stood at the base of the cliffs towards the end of the sea defences.

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Photo 3: View north of the shelf at the back of the northern half of the bay.



Photo 4: Closer view of the deposits exposed in the shelf. These deposits appear laregly to consist of industrail waste, presumably from the adjacent 19th century quarrying activity.



Photo 5: Remains of limekiln PRN 15982 behind the current sea defences. Cottage PRN 6384/58657 can be seen on the left.



Photo 6: View south-east across the bay, with the hamlet of Abereiddy visible behind the beach.



Photo 7: Remains of 'The Street' (PRN 9914), a row of 19th century quarryworkers cottages on the north side of the bay, associated with Porthgain quarry on the high ground behind.



Photo 8: Remains of the extensive 19th century quarry on the north side of the bay (PRNs 4375, 24711, 24713) with the earlier lookout tower (PRN 2732/58661) in the background.

3.5 Previous Archaeological Work

3.5.1 To date there has been no known intrusive archaeological work undertaken within the study area.

3.5.2 There have been several archaeological site surveys examining sites and areas within the study area. As part of the Tir Gofal agri-environmental scheme several brief Desk-Based Assessment (HE1s) have been undertaken on several farm-holdings within the study area and more detailed site visits (HE2s) were undertaken of two farm-holdings within the study area. Lecha Farm (Cooper 2001) includes a holding close to Llanfyrn, and Pwll-Caerog Farm (Steele 2006) includes land around the Caerau promontory fort to the west. As a National Trust property this holding also had a separate archaeological field survey by the National Trust in 2003.

3.5.3 A field survey has also been undertaken on the Porthgain quarries (James 1997), which included the quarry workings on the north side of Abereiddy Bay. The row of associated derelict quarry workers cottages, known as the Street, has also been the subject of a building recording exercise (Ratty 2008).

3.5.4 Other work within the study area includes the photographic survey of a traditional building at Y Glowty, near Llanfyrn, prior to its redevelopment.

4. IMPACT ASSESSMENT

4.1 Previous Impacts

4.1.1 The extent to which the establishment of the current sea defences and the car park behind has affected any potential archaeological deposits in this area is unknown. The newly identified archaeological site (NS01) is known only from historical mapping evidence, there is no indication of it on the ground. It would seem likely therefore that remains of this feature were removed or largely disturbed during the creation of the current sea defences.

4.1.2 The other main impact in this area is the coastal erosion itself. From the damage done to the current sea defences it is clear that any structure that stood proud of the ground surface is likely to have been severely affected by coastal erosion. However the level as to which underlying deposits are affected is unclear. This erosion is clearly exposing deposits along the northern half of the beach, which is relatively unprotected.

4.2 **Potential Impacts from Development**

4.2.1 The proposed development consists of 1.8m thick sloping face of armour rock replacing roughly a quarter of the length of the existing defences, just south of halfway (Figures 12 & 13). The sea defences to the south of this will be protected by a footing 2.6m wide, 1.3m high on the seaward side. Existing sea defences to the north of this will be demolished. Other works will include the erection of a temporary site compound for the storage of the resultant material.

4.2.2 Although replacing existing defences these works still have the potential to expose, damage and destroy any potential below ground remains through groundworks associated with the creation of the new sea defences, landscaping and terracing works and enabling works, such as installation of contractor's compound, construction of access roads, parking areas, storage areas, borrow pits and associated services. Only one site has been identified that lies within the specific area of works, namely the newly identified site (NS01). No remains of this site are visible above ground, the below-ground potential is unknown although not thought to be high. A limekiln complex (PRN 15982) does lie adjacent to the proposed works which could potentially be affected, either directly through the groundworks, or indirectly through the movement of machinery and materials and vibrations caused by the groundworks.

4.2.3 The value of underlying deposits that could be affected by the proposed works is also unknown. Peat deposits (PRN 32687) have been identified on land behind the bay, which could contain palaeo-environmental information. It is possible these deposits could extend into the bay underneath or layered within the shingle and sand.

4.3.4 No Scheduled Ancient Monument will be directly or indirectly affected by the proposed works. Four Grade II listed buildings lie in relatively close proximity to the works (PRNs 6384/58657, 58658, 58659 & 59660). It is unlikely these structures will be directly affected by the proposed works, although care should be taken in the siting of the temporary site compound.

4.2.5 These four listed buildings, along with a further three Grade II listed building will be able to see the proposed works. However, as these works comprise the replacement of existing sea defences, it is not considered that the new sea defences will have a detrimental impact on the settings of these buildings. Indeed, the establishment of new sea defences should help to lessen the threat of future coastal erosion on the four nearby listed buildings.

4.2.6 In terms of its landscape setting as the works will result in the replacement of existing sea defences it is not considered to have a detrimental impact on the historic landscape setting.

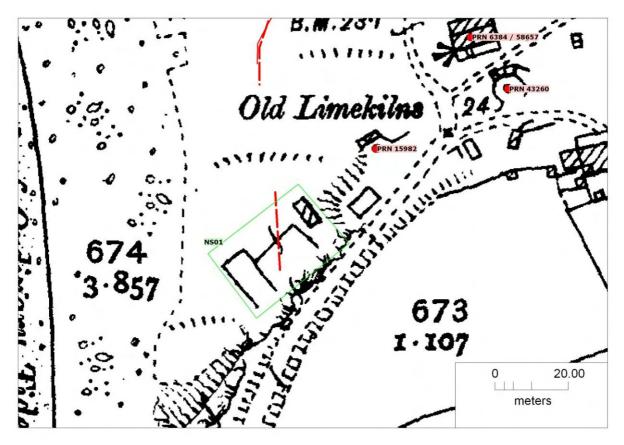


Figure 11: Extract from the 2nd edition 1;2500 Ordnance Survey map of 1907, showing the extent of sites NS01 and PRN 15982 that may be affected by the proposed works. The line of the proposed works is shown in red.



Figure 12: Plan of the proposed works, as provided by PCC.

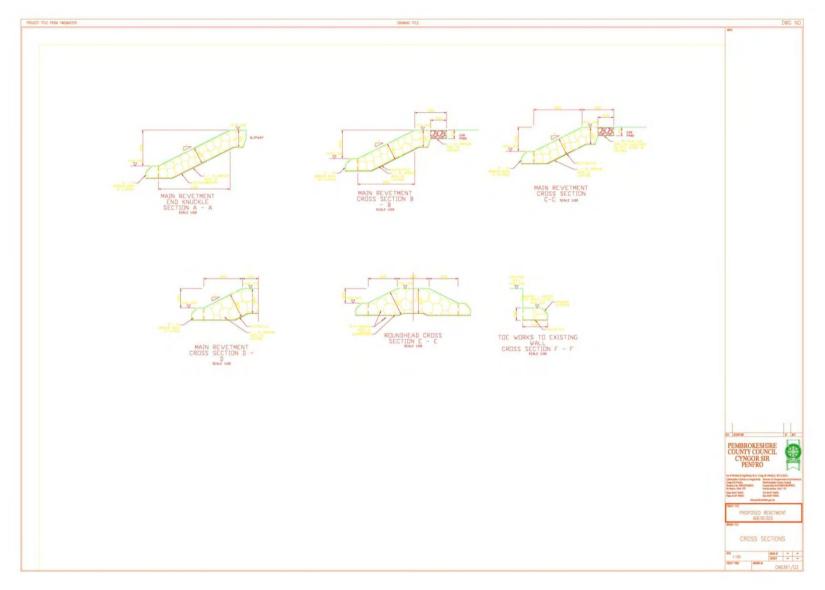


Figure 13: Sections through the proposed new sea defences, as provided by PCC.

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5. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL AND IMPORTANCE

5.1 As stated in the previous section it is felt that the proposed works could potentially impact on three sites: the 19th century building and enclosures (NS01); the adjacent limekiln (PRN 15982); and potential peat deposits. These are discussed below and an assessment of their most likely archaeological importance is also made. Numerous other sites have been identified within the larger study area, but only those sites discussed below are likely to be impacted on by the proposed development.

5.2 The extent of the 19th century building and enclosures (NS01) is illustrated in Figure 11. It comprises a small building and adjacent enclosure that appear to have been sited on the edge of the beach. The function of these structures is unclear, they may be associated with the adjacent limekiln or represent some form of quayside-type structure. No standing remains of these structures survive above-ground. The extent of any below-ground remains is currently unknown, however with both coastal erosion and the establishment of the current sea defences across the site, the potential for below-ground remains is considered medium to low. Should remains of this site exist below-ground then they would be considered to be of local importance.

5.3 Figure 11 also shows the extent of the neighbouring limekiln complex (PRN 15982), although by that date it was out of use. This kiln was sited on a small ridge of slightly higher ground overlooking the beach. Currently, only the main kiln structure itself remains clearly visible above-ground, although as illustrated in Figure 11 this would have been associated with adjacent huts and working surfaces, indeed site NS01 may be part of the same lime-burning complex. The extent of any below-ground remains is currently unknown, although given its slightly raised position, a lack of obvious development and surviving above-ground remains, the potential for below-ground remains is considered to be high. Should remains of this site exist below-ground then they would be considered to be of local importance.

5.4 An area of peat bog (PRN 32687) survives to the east of Abereiddy, in the valley bottom behind the bay. It is possible these peat deposits were once more extensive and extended further out into the bay to the west. Due to the anaerobic condition of the peat deposits, they can be important source for palaeo-environmental data. The extent of any below-ground peat deposits extending out into the bay in this area is unknown, although given a lack of peat deposits recorded in the exposed deposits at the northern end of the bay the potential for below-ground deposits in this area is considered to be low to medium. The value of peat deposits in this specific area would be considered medium, providing information on past environments of the site area.

6. MITIGATION

6.1 There is not considered to be a significant setting impact on any designated sites or sites of high archaeological significance that would warrant any changes to or prevention of the proposed development on archaeological grounds.

6.2 There is the potential for some archaeological features and deposits to be exposed, damaged or destroyed during the course of these proposed works. These features, if present, would be considered to be of local importance and the recording of any exposed archaeological features or deposits could be adequately enabled by the undertaking of an archaeological watching brief on the proposed works.

6.3 Consideration should be given to the siting of any works compound and the passage of machinery and materials through the area to avoid impacting on any recorded archaeological remains in the vicinity of the proposed works.

6.4 If peat deposits are encountered during the works, an assessment would need to be made of their significance and whether any palaeo-environmental sampling and analysis should be carried out.

7. SOURCES

Database

Dyfed Archaeological Trust Historic Environment Record, housed with the Dyfed Archaeological Trust in Shire Hall, Carmarthen Street. Llandeilo SA19 6AF

National Monument Records for Wales, housed with the Royal Commission on the Ancient and Historical Monuments of Wales, Aberystwyth. Online database http://www.coflein.gov.uk/

Cartographic

Bowen E	1729	Map of South Wales	
Davies E 1840-1		St David's Parish Tithe Map	
Goode H.P & Philpott	t 1844	Llanrian Parish Tithe Map	
Ordnance Survey 1810 Sheet		Original surveyors drawings, 2 inch to 1 mile.	
		183	
Ordnance Survey	1819	Old Series 1 inch to 1mile, sheet 40.	
Ordnance Survey 1889		1^{st} edition 1;2500 Pembrokeshire Sheet XV.1	
Ordnance Survey 1907		2 nd edition 1;2500 Pembrokeshire Sheet XV.1	

Published

- Charles, B G 1992 *The Place-Names of Pembrokeshire, Vol.1* NLW Aberystwyth.
- Howells, B (Ed.) 1973 Elizabethan Pembrokeshire, the evidence of George Owen. Pembrokeshire Record Society
- Jermy, R C 1986 *The Railways of Porthgain and Abereiddy* The Oakwood Press
- John, B 1995 Pembrokeshire Past & Present Green Croft

National Museum of Wales (NMW) 1982 The Maritime Heritage of Dyfed

Richards, A 1998 *The Slate Quarries of Pembrokeshire* Llarwst: Gwasg Carreg Gwalch

Unpublished

- Cooper, A 2001 *Tir Gofal Farm Visit Report Lecha* Dyfed Archaeological Trust (then Cambria Archaeology) Report No. 2001/1
- James, H 1997 Porthgain: A Summary and Assessment of its Industrial Archaeology. Dyfed Archaeological Trust Report PRN 35410
- Ratty, S 2008 Abereiddy Slate Quarry Cottages, Pembrokeshire; Archaeological Recording. Dyfed Archaeological Trust Report No. 2008/51
- Steele, W 2006 *Tir Gofal Management Plan; Heritage Management Information (HE2) Pwll Caerog.* Dyfed Archaeological Trust Report No. 2006/11

COASTAL DEFENCE REALIGNMENT, ABEREIDDY, PEMBROKESHIRE: HISTORIC ENVIRONMENT APPRAISAL

RHIF YR ADRODDIAD / REPORT NO. 2012/75 RHIF Y PROSIECT / PROJECT RECORD NO. 103746

> Rhagfyr 2012 December 2012

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

PHILIP POUCHER Swydd / Position: ARCHAEOLOGIST

PPour Llofnod / Signature ...

Date 17/12/12

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith

This report has been checked and approved by

JAMES MEEK

ar ran Ymddiriedolaeth Archaeolegol Dyfed Cyf. on behalf of Dyfed Archaeological Trust Ltd. Swydd / Position: HEAD OF FIELD SERVICES

Llofnod / Signature

James Musle

Date 17/12/12

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

