

**THE CLWYD-POWYS ARCHAEOLOGICAL TRUST**

# **Waterloo Public Amenity Site, Nr Pembroke Dock, Pembrokeshire**

**ARCHAEOLOGICAL ASSESSMENT**



**CPAT Report No 886**

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Nr Pembroke Dock, Pembrokeshire**

**ARCHAEOLOGICAL ASSESSMENT**

By N W Jones  
September 2007

Report for Capita Symonds Ltd

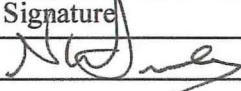
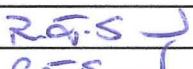
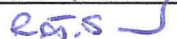
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## CPAT Report Record

### Report and status

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## 1 INTRODUCTION

- 1.1 This report describes the results of an archaeological assessment undertaken by the Field Services section of the Clwyd-Powys Archaeological Trust (hereafter CPAT) in relation to the proposed redevelopment of the Waterloo Public Amenity Site near Pembroke Dock, centred at SM 983038. The report was commissioned by Capita Symonds, the work being carried out as part of an Environmental Impact Assessment for the proposed development that will result in the compilation of an Environmental Statement of which this report will form a part.

## 2 GEOGRAPHICAL BACKGROUND

- 2.1 The site is located in an area known as Waterloo on the eastern outskirts of Pembroke Dock, on land reclaimed from mudflats. Waterloo occupies the eastern side of a promontory with the tidal inlets of Kingswood Pill and Cosheston Pill to the east, Pembroke Dock to the west and the waters of the Daugleddau, at the eastern end of Milford Haven, to the north. The promontory rises to around 50m above sea level, although the site lies at an altitude of only 5m. At present the site comprises an existing recycling facility within a fenced compound, together with an adjacent area of waste ground along the edge of Kingswood Pill.
- 2.2 Milford Haven is a classic example of a ria, a drowned river valley, formed by a process known as 'isostatic recovery' following the last ice age.

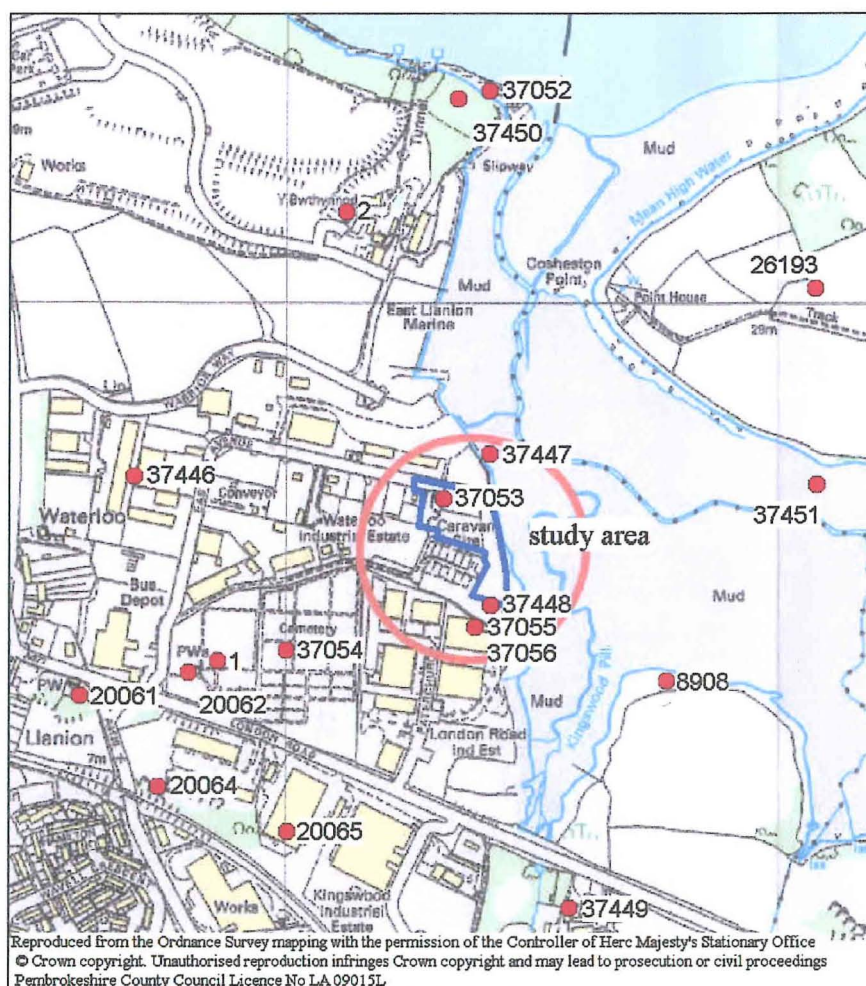


Fig. 1 Site location and known archaeological sites

### 3 SURVEY METHODOLOGY

#### *Desk-based study*

- 3.1 The initial desk-based study of the area involved the examination of readily available written, cartographic, and aerial photographic sources in the following repositories: the Regional Historic Environment Record (HER) held by Cambria Archaeology in Llandeilo; the County Archives Service for Pembrokeshire in Haverfordwest; the National Library of Wales (NLW) in Aberystwyth; and the National Monument Record (NMR), a department of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), also in Aberystwyth. Aerial photographs from the Central Register of Aerial Photography in Wales, a section of the Welsh Assembly Government in Cardiff, were also accessed through the offices of the NMR. In general the search area has been restricted to within 500m of the site, although data on scheduled ancient monuments and listed buildings derived from lists prepared by Cadw, the Welsh Assembly Government's historic environment service was also examined within a radius of 1km.
- 3.2 There is a general lack of recorded archaeological sites in the area which belong to the earlier prehistoric period and it is only from the Iron Age (*c.* 700 BC to 1<sup>st</sup> century AD) onwards that any substantive monuments are known. This is not to say, however, that this part of south-west Wales was unoccupied at an earlier date. Indeed, there is ample evidence, mostly from artefact scatters and caves, that the coastal fringes were being exploited. It is of particular relevance to note that from the end of the last glaciation, around 10,000 BC, until the end of the Mesolithic period around 4,000 BC sea levels were generally considerably lower than at present and there is potential for the discovery of occupation and flintworking sites which occupied river valleys such as those of Kingswood and Cosheston Pill which have long since been inundated. This was demonstrated by the discovery of a Mesolithic shell midden on the shores of Cosheston Pill in 1979 which had been exposed by the tidal waters and was being actively eroded. Others probably await discovery in the vicinity.
- 3.3 Evidence of activity during the Romano-British and early medieval periods is also rather scant in this area, although there can be little doubt that many of the communities that developed on the shores and inlets of Milford Haven were founded by at least the later medieval period.
- 3.4 Until the early 19<sup>th</sup> century the peninsula between Milford Haven and the Pembroke River was predominantly agricultural. This changed in 1812 with the Admiralty's decision to relocate their dockyards from Milford Haven to a new site at Paterchurch, marking the beginning of the new planned town of Pembroke Dock. The dockyards and town grew rapidly as one of the most important naval shipbuilding centres in the world for over 100 years until the closure of the docks in 1926. Despite the closure of the docks the town continued to expand during the 20<sup>th</sup> century, with more recent development including the part of Waterloo where the development site is located.
- 3.5 There is regrettably an absence of historic maps that might have thrown some light on the use and development of this area in the early post-medieval period (*i.e.* from the 16<sup>th</sup> century onwards). The earliest maps that are available date from the late 18<sup>th</sup> century and form part of a collection of maps of the Bush Estate, deposited at the Pembrokeshire Record Office in Haverfordwest. Based on the available historic cartography is reasonably certain that until relatively recently the site in question was part of the mudflats between the tidal inlets of Lanion Pill and Kingswood Pill, both of which were tributaries of Cosheston Pill. A map of 1772 shows the area to the south as belonging to John Cuny Esq, which by 1813 had become part of the Bush Estate of John Francis Meyrick.
- 3.6 The Tithe survey for Pembroke St Mary of 1841 (apportionment dated 1839) shows an area of land south of the development area and to the north of the present A477, between the waters of Lanion Pill and Kingswood Pill, known as *Middle Shore Park* and *West Shore Park*, which were classed as meadow and arable respectively. The significance of the use of 'park' is unclear.
- 3.7 Interestingly, the Ordnance Survey 1<sup>st</sup> edition 1:10,560 map of 1869 (Fig. 2) shows a causeway leading north from the shoreline, across the assessment area, to a wooden pier extending across the mudflats to the main channel of Cosheston Pill. An 'engine shed' was appended to the end of the

pier, although it is uncertain what this constituted. By the time of the 2<sup>nd</sup> edition 1:2,500 map of 1908 the pier and causeway were no longer in evidence and the area was in part used as a rifle range, firing at targets 500yds to the north, across Lanion Pill.

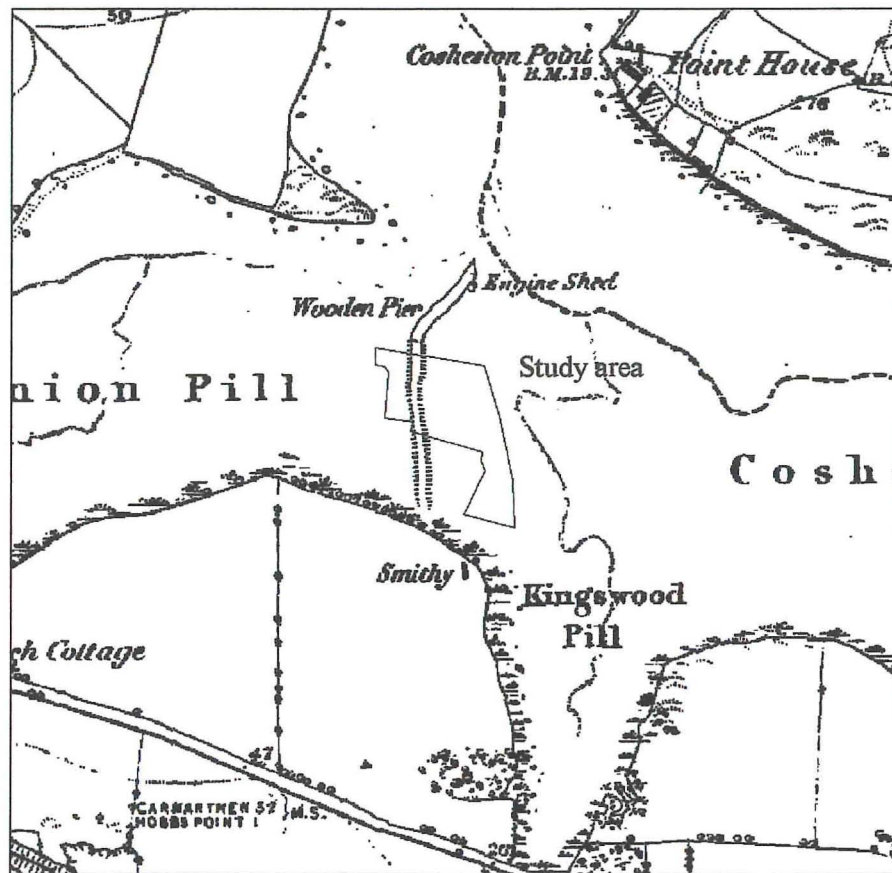


Fig. 2 Ordnance Survey 1<sup>st</sup> edition 1:10,560 map of 1869

- 3.8 The site of Lanion Pill was gradually infilled by a rubbish tip which developed following the expansion of the settlements of Llanion and Waterloo from the late 19<sup>th</sup> century. During the 1980s further landfill occupied the proposed development site and in 1984 the whole area was reclaimed as part of the Pembroke Dock Enterprise Zone.
- 3.9 An examination of available vertical aerial photography for the area revealed no details of archaeological significance, but did confirm that at least as recently as 1974 the site in question was part of the tidal mudflats between Kingswood Pill and Lanion Pill.

#### *Site surveys*

- 3.10 Upon completion of the desk-based element of the assessment, a field visit to the site was undertaken in late August 2007. This both reviewed the evidence for sites which had been revealed at the desk-based stage, and examined the area of the proposed development for previously unrecorded archaeological sites. The survey revealed no surface evidence for any archaeological features either within the site or its immediate environs.

## 4 BASELINE CONDITIONS

- 4.1 A total of 17 archaeological sites and features were identified within 500m of the proposed development, of which 15 sites were already recorded in the regional HER, while 2 sites were recorded in *Coflein*, the on-line database maintained by RCAHMW. All sites are referred to by their primary record number (PRN) recorded in the regional HER, with the exception of the two sites recorded in *Coflein* which have been given temporary site numbers. The sites are tabulated below in Table 1.

### *Classifications*

- 4.2 Archaeological sites and landscapes represent a non-renewable resource, and should be avoided wherever this is feasible in order to avoid damage or destruction. All sites can be classified according to a system based on that given in the Department of Environment, Transport and Regions' Design Manual for Roads and Bridges Volume II Section 3 Part 2 (1993). This provides a standard for assessments of this type. Category E (the equivalent of category U in some equivalent classifications) has been introduced to cover archaeological sites and monuments whose existence went unacknowledged in the Design Manual. The categories are defined below.

- *Category A* sites are those believed by CPAT to be of primary significance, either potentially of national importance or already designated by Cadw as scheduled ancient monuments or listed buildings. It is presumed that sites in this category will be preserved and protected *in situ*.
- *Category B* sites are sites of regional importance. These sites are not of sufficient importance to justify scheduling, but are nevertheless important in aiding the understanding and interpretation of the archaeology of the region. Preservation *in situ* is always the preferred option for these sites, but if loss or damage is wholly unavoidable, detailed recording appropriate to the importance of the site must be undertaken.
- *Category C* sites are sites of local importance. These sites are of lesser importance, but are nevertheless useful in the understanding and interpretation of the archaeology of the local area. They may not be of sufficient importance to justify preservation if a development threat is unavoidable, but merit adequate recording in advance of loss or damage, or if portable they should be moved.
- *Category D* sites are either sites or features of minor importance or those which are so badly damaged that too little now remains to justify their inclusion in a higher grade. Rapid recording may be sufficient, but as with Category C sites they could be moved if this is an appropriate strategy.
- *Category E* sites are sites which have been identified, but whose importance cannot be assessed from fieldwork and desk-based study alone. An archaeological evaluation would generally be required to categorise such a site more accurately if the proposal was likely to affect it in any way.

- 4.3 The classification of each site (with the exception of scheduled sites and listed buildings) is based on the collective judgement and expertise of the field staff of CPAT. However, it should be stressed that the significance of a site and hence its classification could readily be enhanced by more detailed work.

### *Scheduled ancient monuments*

- 4.4 On the basis of information provided by Cadw, it is clear that there are no scheduled ancient monuments within 1km of the study area.

*Listed Buildings*

- 4.5 On the basis of information provided by Cadw, there are two listed buildings within 1km of the site, both of which are classified as Grade II: No.12 Waterloo Road, and Nos 2-16 Llanion Cottages, in Llanion. As all listed buildings, regardless of their category, are considered by the authorities to be of national significance, the fact that they are only Grade II and not a higher grade is of little import.

*Registered Landscapes, Parks and Gardens*

- 4.6 The site lies within the registered historic landscape known as Milford Haven Waterway (Historic Landscape Area no. HLW (D) 3; Cadw 1998, 17-21). The classic ria, or drowned river valley, of Milford Haven has an unsurpassed concentration of remains reflecting maritime conquest, settlement, commerce, fishing, defence and industry spanning the prehistoric to modern periods.
- 4.7 The nearest registered parks and gardens are: Cosheston Hall, which lies some 2.2km to the east, on the other side of Cosheston Pill; Monkton Old Hall and Vicarage, Pembroke which is 2.3km to the south, and 111 Main St, Pembroke which is about 2.4km to the south. The local topography appears to rule out any possibility that the development will not be visible from any of these sites.

Table 1: Sites of Archaeological and Cultural Heritage Interest

PRN/ Site no	Name	NGR	Type	Period	Category
8908	Kingswood Pill Midden	SM985035	Midden	Prehistoric	B
20061	St.Teilo's Mission	SM97730348	Church	Post Medieval	B
20062	Llanion Cemetery Mortuary Chapel	SM97870351	Chapel	Post Medieval	B
20064	Llanion limekiln	SM97830336	Limekiln	Post Medieval	E
20065	Kingswood woollen mill	SM980033	Woollen Mill	Post Medieval	E
26193	Point Lane searchlight battery	SM98700402	Searchlight Battery	Modern	D
37052	Cleddau Reach Navigation Marker	SM98270428	Navigation Aid	Modern	C
37053	Llanion Pill Pier	SM98210374	Pier	Post Medieval	D
37054	Waterloo Cemetery	SM98000354	Cemetery	Modern	C
37055	Llanion Pill Smithy	SM98250357	Blacksmiths Workshop	Post Medieval	D
37056	Shore Cottage	SM98250357	Cottage	Modern	D
37446	Waterloo Refuse Disposal Site	SM97800377	Refuse Disposal Site	Modern	D
37447	Waterloo Quay	SM98270380	Sea Defences?;Slipway	Modern	D
37448	Llanion Pill Rifle Range	SM98270360	Firing Range	Post Medieval-Modern	D
37449	Kingswood Farm	SM98370320	Settlement	Medieval-Post Medieval	B
37450	Ferry Wood Quarry	SM98230427	Sandstone Quarry	Post Medieval	C
37451	St.Mary/Cosheston Parish Boundary	SM98700376	Parish Boundary	Medieval-Modern	D
Site 1	Llanion Oil Fuel Depot	SM9808104120	Fuel depot	Modern	D

Site 2	Llanion Cemetery Non-conformist Mortuary Chapel	SM9790803526	Chapel	Post Medieval	B
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### *Site descriptions*

#### **PRN 8908 Kingswood Pill Midden**

A shell midden was first recorded in 1979 having been exposed and then eroded by tidal action. It was sited on a spur of land extending into Cosheston Pill. It is not known whether any part of this site survives.

#### **PRN 20061 St Teilo's Mission**

A 19<sup>th</sup>-century chapel.

#### **PRN 20062 Llanion Cemetery Mortuary Chapel**

A mortuary Chapel dating from 1860s, sited within Llanion Cemetery.

#### **PRN 20064 Llanion limekiln**

A limekiln is depicted on an estate map of c. 1813.

#### **PRN 20065 Kingswood woollen mill**

A woollen mill is recorded in the HER.

#### **PRN 26193 Point Lane searchlight battery**

Second World War Air Defence Searchlight Battery, now demolished, which consisted of two hut bases.

#### **PRN 37052 Cleddau Reach Navigation Marker**

A modern navigation marker made of metal, indicating the mouth of Cosheston Pill. RSR March 1999

#### **PRN 37053 Llanion Pill Pier**

The Ordnance Survey 1<sup>st</sup> edition 1:2,500 map of 1866 depicts a causeway around 160m long and 12m wide running northwards across the mudflats to Kingswood Pill Pier, which extended for 80m from the end of a causeway to the main channel of Cosheston Pill. An 'engine house' is appended to the pier. The site of the causeway has now been reclaimed and is partly occupied by the Waterloo Public Amenity Area.

#### **PRN 37054 Waterloo Cemetery**

The large grid-planned municipal cemetery was established between 1881 and 1909, with an entrance lodge and mortuary chapels on the south side of Lanion Pill.

#### **PRN 37055 Llanion Pill Smithy**

A smithy is depicted on the Ordnance Survey 1<sup>st</sup> edition 1:2,500 map of 1866. By the time of the 2<sup>nd</sup> edition map of 1908 this was recorded as 'Shore House'. The site is now occupied by London Road Industrial Estate.

#### **PRN 37056 Shore Cottage**

Shore Cottage is shown as a building on the Ordnance Survey 2<sup>nd</sup> edition 1:2,500 map of 1908 but not on subsequent editions. Possibly converted from the smithy (PRN 37055) depicted on the 1<sup>st</sup> edition map.

**PRN 37446 Waterloo Refuse Disposal Site**

A former rubbish tip over saltings within the former Llanion pill, developed from the expansion of the settlements of Llanion and Waterloo from the late 19<sup>th</sup> century. During the 1980s further landfill occupied the proposed development site and in 1984 the whole area was reclaimed as part of the Pembroke Dock Enterprise Zone.

**PRN 37447 Waterloo Quay**

The Waterloo Quay Industrial Development Project combined with the new waterfront industrial and leisure area known generally as Cleddau Reach covers a large part of what was formerly Llanion Pill (See also PRN 37446 Waterloo Refuse Tip).

**PRN 37448 Llanion Pill Rifle Range**

A military rifle range assumed to have been established following the construction of Llanion barracks. A rifle range of 500 and 200 yards is shown on the Ordnance Survey 2<sup>nd</sup> edition 1:2,500 map of 1908 occupying a spur of made ground which had replaced the earlier causeway.

**PRN 37449 Kingswood Farm**

A complex of farm buildings which possibly had its origin in the medieval period.

**PRN 37450 Ferry Wood Quarry**

A quarry, probably for Old Red Sandstone, is depicted on the Ordnance Survey 2<sup>nd</sup> edition 1:2,500 map of 1908, situated on the western promontory, within Ferry Wood, at the mouth of Cosheston Pill.

**PRN 37451 St Mary/Cosheston Parish Boundary**

The parish boundary between the parishes of Pembroke St Mary and Cosheston is delineated by the deep water channel down Cosheston Pill. Changes in the course of the channel are presumably reflected in the changing line of the boundary on early maps.

**Site 1 Llanion Oil Fuel Depot**

Site of former Royal Navy oil fuel depot dating from 1927.

**Site 2 Llanion Cemetery Non-conformist Mortuary Chapel**

Mortuary Chapel dating from 1869, sited within Llanion Cemetery.

## 5 POTENTIAL IMPACTS

**Direct Impacts**

- 5.1 The potential impact of the proposed development has been considered for those sites identified during the assessment.
- 5.2 The potential of an archaeological site can be based on its perceived nature and appearance, its topography and the distribution and nature of other recorded archaeological features in the locality. It is measured on the basis of **High, Medium, Low and None**.

Table 2: Predicted direct impacts

PRN/ Site no	NGR	Type	Period	Category	Predicted impact
8908	SM985035	Midden	Prehistoric	B	None
20061	SM97730348	Church	Post Medieval	B	None
20062	SM97870351	Chapel	Post Medieval	B	None

20064	SM97830336	Limekiln	Post Medieval	E	None
20065	SM980033	Woollen Mill	Post Medieval	E	None
26193	SM98700402	Searchlight Battery	Modern	D	None
37052	SM98270428	Navigation Aid	Modern	C	None
37053	SM98210374	Pier	Post Medieval	D	None
37054	SM98000354	Cemetery	Modern	C	None
37055	SM98250357	Blacksmiths Workshop	Post Medieval	D	None
37056	SM98250357	Cottage	Modern	D	None
37446	SM97800377	Refuse Disposal Site	Modern	D	None
37447	SM98270380	Sea Defences?; Slipway	Modern	D	None
37448	SM98270360	Firing Range	Post Medieval-Modern	D	None
37449	SM98370320	Settlement	Medieval-Post Medieval	B	None
37450	SM98230427	Sandstone Quarry	Post Medieval	C	None
37451	SM98700376	Parish Boundary	Medieval-Modern	D	None
Site 1	SM9808104120	Fuel depot	Modern	D	None
Site 2	SM9790803526	Chapel	Post Medieval	B	None

- 5.3 Although the proposed development is not likely to have any direct impact on any of the known archaeological sites within the area, there is always the possibility that previously unrecorded sites may be present for which there is no surviving surface trace. The relatively recent discovery of a prehistoric shell midden along the shore of Cosheston Pill clearly indicates the potential for the discovery of further sites from the earlier prehistoric period which may have been inundated by later rises in sea level.

#### **Visual Impacts**

- 5.4 The proposed development is surrounded by industrial estates and a caravan site on three sides and as a result of its siting and the local topography it is considered that it is likely to have a negligible visual impact on any of the archaeological sites within 500m, or the listed buildings within 1km.
- 5.5 Although the site lies within the Milford Haven Waterway Historic Landscape it has not at present been possible to determine whether the Countryside Council for Wales have recommended that a separate assessment of the impact on the landscape, a process known as ASIDOHL, be undertaken. It is, however, the conclusion of this assessment that due to the size and nature of the development, an assessment of the impact on the landscape is unlikely to be required.

## 6 CONCLUSIONS

- 6.1 The study has provided a comprehensive assessment of the archaeology and cultural heritage within the immediate environs of the proposed development. A total of 17 sites are recorded within 500m of the development site, ranging from prehistoric shell middens to 20<sup>th</sup>-century military sites. The assessment has clearly demonstrated that until relatively recently the area in question was part of the tidal saltmarsh between Lanion Pill and Kingswood Pill, and an area which was subject to informal landfill and subsequent reclamation in 1984.
- 6.2 Despite its coastal location two 19<sup>th</sup>-century archaeological sites are recorded within the boundaries of the proposed development – a causeway leading to a pier and a rifle range – neither of which now has any visible remains. Indeed, an assessment of the predicted impacts has concluded that none of the known sites will be affected either directly or visually.
- 6.3 Depending on the depth of any ground disturbance associated with the development there is the possibility that, should any unrecorded, buried, archaeological deposits survive, they could be disturbed. Given the location of the development site the potential for such unrecorded deposits is likely to relate to sites belonging to the earlier prehistoric period, at a time before rising sea levels flooded the river valleys which now form Cosheston Pill and its tributaries.

## 7 ACKNOWLEDGEMENTS

- 7.1 The writer would like to thank the following people for their assistance during the project: Bob Silvester, CPAT; the staff of the Pembrokeshire Record Office, Haverfordwest; the staff of the National Library of Wales, Aberystwyth; and the staff of the National Monuments Record, Aberystwyth.

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Murphy, K, & Allen, B, 1998. *Coastal Survey 1997-98: Lower Milford Haven, Pembrokeshire*. Cambria Archaeology.

### Cartographic sources

18<sup>th</sup>-century Map of Kingswood and Goodborough in the parishes of St Mary and St Michael, Pembroke. (Pembrokeshire Record Office, D/BUSH/6/32)

1772 Map of the Bush Estate belonging to John Francis Meyrick Esq., by Thomas Lewis (Pembrokeshire Record Office, D/BUSH/6/26)

1809 Ordnance Survey surveyors' drawing 181

- c.1813 Map of King's Wood and Goodborough in the Parishes of St
- 1839 Tithe survey (apportionment of 1839 and map of 1841) for Pembroke St Mary and St Michael, Pembroke, by John Tamlyn. (Pembrokeshire Record Office, D/BUSH/6/36)
- 1848 Map of the Bush Estate (Pembrokeshire Record Office, D/BUSH/6/27)
- 19<sup>th</sup>-century Map of the Bush Estate (Pembrokeshire Record Office, D/BUSH/6/28)
- 1866 Ordnance Survey 1:2500 1st edition: Pembrokeshire 40.01 and 40.05
- 1908 Ordnance Survey 1:2500 2nd edition: Pembrokeshire 40.01 and 40.05

**Aerial Photographs**

- 1946 RAF 106G/UK/1629/4028; 8 July 1946; c.1:10560
- 1974 Ordnance Survey 14 213 144; 19 August 1974
- 1987 G C A Survey Group Ltd 03 87 107; 26 April 1987; scale 1:4000