

15

Cultural and Archaeological Heritage

15.1

Introduction and Methodology

15.1.1

General methodology

This assessment was conducted with regard to standards set out by the Institute of Field Archaeologists (IFA) 1994. The assessment was also informed by the Joint Nautical Archaeology Policy Committee's Code of Practice for Seabed Developers 1995.

An archaeological desk-based assessment was prepared by Wessex Archaeology (2005) for the study area. A summary of the document is provided in Section 15.1.2.

The general approach and methodology has been to consider the archaeology in terms of the archaeological sites and monuments present within the study area (see plans in Appendix J). These resources may be nationally or locally designated (by registration, listing or scheduling), may appear in the national or local archaeological record, or may be identified from specialist scrutiny of the site and historic records.

Information on archaeology and built historical interests within the study area has been obtained through consultation with statutory and non-statutory organisations. A search of the National Monuments Record (NMR) was requested from the National Monuments Record Centre and information on the Archaeology and Historic Buildings Record (Sites and Monuments Record) was requested from Hampshire County Council. In addition, English Heritage, the Hampshire and Wight Trust for Maritime Archaeology (HWTMA), Isle of Wight Council, Hampshire County Council and the Hampshire Field Club and Archaeological Society were consulted in relation to the proposed scheme.

15.1.2

Information Sources

Information was also obtained from the following sources: -

- The NMR, which is maintained by English Heritage, was approached on for information about sites within the Marine Study Area and both terrestrial areas. They responded with seven items and one Activity Report, the latter being that of the excavation of the now lost Roman Villa

off Gurnard Bay. The aerial photography search results listed two hundred and forty eight prints, which were viewed at the NMR in February 2005;

- The Isle of Wight Sites and Monuments Record (IOWSMR), which is maintained by the IOW County Council was approached in February 2005 for information on sites within the IOW Study Area. They responded with 30 records in digital and long report format;
- The UK Hydrographic Office (UKHO) wreck data was acquired from Seazone in February 2005. Six records were located inside the Marine Study Area;
- The Receiver of Wreck (Maritime and Coastguard Agency) was approached in February 2005 for information within the Marine Study Area. No response was received by Wessex Archaeology;
- The Hampshire Record Office (HRO) in Winchester was visited in February 2005. All editions of OS maps, aerial photographs and the local Studies Collection were consulted for the historic background to the site;
- The Isle of Wight Record Office (IOWRO) in Newport was visited in February 2005. All editions of OS maps, aerial photographs and the local Studies Collection were consulted for the historic background to the area;
- Newport Library was contacted regarding their Local Studies Collection. A search was conducted of their database over the phone and a relevant section of a book was sent to Wessex Archaeology;
- The Isle of Wight Coastal Management Centre was contacted in February 2005 with regard to background coastal information in the IOW Study Area. They replied stating that they did not think they held any useful information for the inquiry;
- The IOW Conservation Team was contacted in February 2005 to confirm the SMR results with regard to Conservation Areas and Registered Parks and Gardens within the IOW Study Area. Relevant advice was provided;
- The New Forest County Council was contacted in February 2005 to confirm the SMR results with regard to Conservation Areas and Registered Parks and Gardens within the Hampshire Study Area. Relevant advice was provided;
- Additional background information was collated from secondary and documentary sources held in Wessex Archaeology's library.

Archaeological records for all periods were obtained from the NMR, IOWSMR, and HAHBR in order to formulate an overview of activity within the area traversed by the land cable routes and compound areas. The records were entered into an MS Access database under a unique ID (**WA 1001–1040**), assigned for ease

of reference within this report. The database may be accessed independently, or through the project mapping system. The full gazetteer of terrestrial sites is listed in Appendix J and illustrated in Figure 15.1.

In order to assess the maritime archaeological resource within the Marine Study Area records of wrecks, casualties and seabed features were obtained from the NMR, UKHO and the Hampshire and Wight Trust for Maritime Archaeology. These records were tabulated under a new numerical sequence (**WA 2001-2007**), assigned for ease of reference within this report. A full gazetteer of wrecks and casualties is presented in Appendix J and illustrated in Figure 15.1.

Cartographic and other navigational sources, including historic charts, surveys and sailing instructions, were collated from Wessex Archaeology's existing collections, from the UKHO, and from relevant local Record Offices and libraries. Reference was made to:

- Historic unpublished charts and surveys;
- Historic published charts;
- Pre-Ordnance Survey maps.

The historic maps and charts examined in the course of the project are listed in Appendix F of this document.

Aerial photographs for both oblique and vertical runs were examined at the NMR. The position of the photographs were plotted in a GIS workspace and examined in relation to their position within the Study Areas. A full gazetteer of photographs viewed is presented in Appendix J.

Background documentary evidence for archaeology and history within the Hampshire and IOW Study Areas was obtained from undertaking Record Office visits to Hampshire and the IOW. Additional data was collated from secondary sources held by Wessex Archaeology and local libraries.

Where copied the paper archive that relates to these searches is currently stored at the offices of Wessex Archaeology under the project code 59180.

15.1.3

Objectives

It is in the interest of the local community, developer and council that archaeological issues are discussed, with an appropriately trained specialist, at an early stage in the planning process. This assessment represents such a commitment to early advice to establish the Archaeological and Cultural Heritage Resource of the site and surrounding study area.

The aims of this study were therefore to:

- provide an indication as to the extent, survival and importance of archaeological features potentially impacted by the proposals;
- assess the likely significance of potential effects, taking into account the severity of the impacts and the importance of the archaeological resource, and;
- propose a programme of suitable mitigation measures to avoid, reduce or remedy any adverse impacts caused by development, if required.

15.2

Baseline Conditions

15.2.1

Geology and Topography

As discussed in Section 11, the geology of the study area consists of Devensian Gravel (Pleistocene) overlying lower and older gravels. The solid geology beneath the existing pipeline crossing comprises oligocene deposits, more specifically the Osborne and Headon Hill beds rising up through the Bembridge Limestone (BL) and Bembridge Marls (BM). The older OHB outcrops beneath Lepe and appears to extend many kilometres back from the coastline. At Gurnard Bay the OHB again outcrops at the base of the cliff, but is rapidly overlain within the cliff and inland by the younger BL and BM.

15.2.2

Statutory/Non-statutory protected features

Scheduled Monuments

The study area does not contain any area protected by Statute as a Scheduled Monument (Wessex Archaeology 2005).

Listed Buildings

No Listed Buildings lie within the area of proposed works on the Hampshire side although several Grade II Listed Buildings lie in close proximity such as Stone Farmhouse, which lies approximately 400m to the north-east of the drill rig site.

One Grade II Listed Building **ID 1026** (a 1852 'Hillside' cottage at NGR 447210 095041) lies on Rew Street, approximately 60m to the south-east of the proposed

drill rig site on the Isle of Wight side (Figure 15.1). Several other Listed Buildings lie within the study area.

Conservation Areas, Registered Park or Garden and Archaeological Priority Area

No Conservation Areas (an area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance), Registered Parks or Gardens, or Archaeological Potential Areas lie within the study area on the Isle of Wight side.

One Historic Park and Garden is present on the Hampshire side at Lepe House (non-statutory). This site is listed in the Hampshire Register of Historic Parks and Gardens, but is not included in the National Register. Lepe House is located approximately 800m to the south-west of the proposed working area (drill rig site) at Lepe.

The Hampshire study area does not contain any elements of National Trust Inalienable Land.

Maritime Archaeology

Records of wrecks and obstructions within the Marine Study Area were gathered from data provided by the HAHBR, the NMR and UKHO data supplied as part of Sea Zone. All co-ordinates were converted into National Grid OSGB36 using the Geodetic Calculator v2.4.1 converter. Eight features fall within the Marine Study Area.

The records may be classified by type as follows:

Wreck type	Total
Dispersed Wreck	1
Lifted Wreck	1
Possible Wreck	1
Seabed Find	1
Wreckage	1
Obstruction	3

The only identified wreck is that of the *Algerian (ID 2001)*, a 3837 tonne British cargo vessel built in 1896 in Sunderland and measuring 110.9m length, 13.69m beam and with a draught of 5.8m. She hit a mine in 1916 while in ballast, and has been dispersed (i.e. cleared using explosives) numerous times as a result of her

being a danger to shipping. Although most of the superstructure has been blown off, the wreck still stands six metres proud of the seabed in places.

The site, which is located approximately 310m to the east of the proposed pipeline is classified as a 'live' wreck by the UKHO. It is difficult to establish the archaeological importance of this site without further research. However, in spite of its relatively recent age and iron construction, the vessel was built during a period of intense and rapid development in shipbuilding techniques, and as such may be important due to rarity.

Record **2002** relates to the loss of a British yacht, measuring 12.19m in length, in 1994. The vessel was later salvaged and is documented by the UKHO as having been lifted. The UKHO record places the former seabed position of this wreck as approximately 400m from the proposed pipeline. Although lifted, it is not certain that there are no remaining elements of this vessel on the seabed. This vessel has a very low level of archaeological importance.

Record **2003** relates to a possible clinker built vessel, a small (circa 35-40 inches long) piece of which was recovered in 1953. Flint ballast has also been reported to have been recovered from this area, possibly from the same vessel. Clinker construction was the standard means of shipbuilding during the Saxon and medieval periods, thereafter it continued in use for smaller vessels such as ships boats. The date of this possible wreck is not clear from the available evidence.

The location of this find lies approximately 100m to the west of the proposed pipeline. However, the find is unlikely to have been accurately plotted at the time of the find (1953), thus the exact position of this possible wreck remains uncertain. If this record relates to the loss of a Roman, Saxon or medieval vessel then the site would be of national importance, and designation under the Protection of Wrecks Act (1973) is a possibility. If it is a later, Post-medieval vessel then it may still be of high local, regional or national importance, depending on the type, date and condition of the remains.

Record **2008** refers to the discovery of a collection of 'large white blocks of masonry off the coast near Lepe'. The blocks are over one metre long and it is possible that they may be the cargo of a lost vessel. The find spot lies circa 550m to the west of the proposed route (again the accuracy of this location must be questioned) and no further information is available.

The information on this site is scarce, however if the blocks represent part of a wreck site then may be of high local, regional or national importance, depending on the type, date and condition of the remains.

Record **2004** relates to the reported find by divers of a propeller measuring 5 by 5 by 1m. It is from an unknown vessel and lies approximately 300m south-west of the proposed route. This may be debris created during the dispersal of wreck **2001**. This site has a very low level of archaeological importance.

The three obstructions (**2005-2007**) are all fisherman's fastenings (i.e. obstructions, or net snags, reported by local fishermen and logged on the Kingfisher chart for the area). They are located approximately 200m apart in a rough triangular formation, suggesting a spread of wreck debris or natural features. It is possible that these anomalies represent the dispersed remains of wreck **2001**, which is located approximately 300m east of the cluster of obstructions.

The proposed route runs through the centre of the triangular spread of obstructions. The closest obstruction (**2005**) lies approximately 30m to the south-west of this route. The other obstructions (**2006** and **2007**) are located respectively approximately 130m to the west and 120m to the north-east of the route. The nature of the finding and recording of these anomalies (i.e. way-points logged when fishing gear that is extended out behind a vessel is snagged) means that the given co-ordinates may not represent the exact position of the seabed anomaly.

If these features are associated with wreck **2001** then they would be subject to the same considerations with respect to their potential importance.

15.2.3

Non-designated Archaeology

A gazetteer listing the cultural heritage features that fall within the study area and surrounding areas is provided in Appendix J. Each entry has been assigned a WA ID code and is marked on Figure 15.1.

15.2.4

Archaeological and Historical Background

A historical background of the study area from the Lower, Middle and Early Upper Palaeolithic 500,000 – 22,000 BP (Before Present) to Roman and later activity is provided in the Desk Based Assessment (Wessex Archaeology 2005).

The Solent has been associated with terrestrial archaeological sites from the earliest human occupation of Britain at the start of the Palaeolithic (500,000 BP), up until

the eventual inundation of the area during the Iron Age (700 BC – 43 AD). The Palaeolithic period (500,000 – 10,000 BP) is characterised by a series of long cold stages when ice sheets spread from the Arctic to cover northern Britain, separated by relatively short-lived warm stages that were more suitable for human habitation.

When present, the ice sheets removed water from the oceans, reducing sea level by up to 120 metres. Although never covered by ice, Southern Britain experienced harsh periglacial conditions, and the major river systems, including the Palaeo-Solent (see Figure 3 in Appendix J), cut valleys into the underlying rock strata. Seasonal thawing temporarily released large volumes of water which swept gravel and sand into the river valleys, where it was deposited until further down-cutting occurred. This repeated cycle of down-cutting, mass transport of gravel and deposition has resulted in sequences of plateau and terrace gravels stepping down into the modern channels of many major rivers in Southern Britain.

During the warm stages (interglacials) water released from the ice sheets caused the sea level to rise, drowning some coastal river valleys (such as the Palaeo-Solent). This inundation led to the deposition of alluvium and organic horizons that were often eroded during subsequent cold stages, but which do survive in some locations around the Solent.

The main archaeological consequence of these massive changes to the environment is that relics of human occupation may be present within areas that are currently below Mean Low Water. Artefacts from the Lower and Middle Palaeolithic have often been moved from the original site of activity and are now frequently found within the terraces of re-deposited gravel, as individual stone axes and waste flakes. There are also a few known cases where activity sites have been buried by reworked sediments or warm stage alluvium, and have survived the down-cutting and erosion of subsequent cold stages to be found as *in situ* deposits.

By the start of the Upper Palaeolithic (25-18,000 BP) the ice sheets of the Devensian glaciation had reached their maximum extent. Following this, as climatic conditions became more favourable to humans, Britain was re-colonised. This process started around 13,000 BP when the sea was still at least 60m below its current level, Britain was linked to continental Europe and the Isle of Wight was linked to the mainland. The climate continued to improve until about 10,000 BP, at which point the British climate may have been as warm as it is at present.

Thereafter the Palaeolithic population was superseded by Mesolithic hunter-gatherers, who in turn were supplanted by Neolithic, and later Bronze Age farmers. Throughout this process the volume of dry land within the Marine Study Areas steadily decreased.

15.3

15.3.1

Impact Assessment and Mitigation

Archaeological Potential

The NMR holds records of documented losses for which no grid reference can be confirmed. These records are attached to arbitrary points called Named Locations (NLOs). These points have been chosen to represent general loss locations, and do not (except by chance) relate to actual seabed remains.

The NMR holds no records for Named Location losses within the Marine Study Area. However, this does not rule out the possibility of such losses within the area. For example the NLO off Portsmouth records the loss of 109 vessels and a further 21 are known for the area off Hurst Castle, Keyhaven and Lymington. The NMR was unable to search for NLOs only and it has not been possible to search the database for a large enough part of the Solent to discover the NLO that stored losses off Lepe and Gurnard. Notwithstanding this, many vessels are known to have been lost within the Solent, and it is possible that some of these were lost within the marine section of the study area.

All the processes by which casualties or wrecks have been recorded militate against the desktop identification of older wreck sites. The potential for wrecks within the Solent covers all periods, perhaps dating as far back as the inundation of the area during the period between the Mesolithic and the Iron Age. Although the potential for the survival of early prehistoric boats in UK waters is speculative, slender Mesolithic log-boats have been found in Denmark. Various Bronze Age boats and cargoes have been found around the coast of England and Wales, notably in Langdon Bay near Dover. To date these discoveries have been made at or close to the shore rather than in open waters, possibly reflecting patterns of ancient seafaring that favoured routes close to the shore.

The Roman roads, villa (or mansio) and possible quayside all point to the possibility of a ferry crossing point at what is still the narrowest part of the Solent (i.e. between Gurnard and Lepe). Therefore there is some potential for the presence of wrecks of this period within the marine section of the study area.

By the sixth century cross-channel vessels were clearly using AD Portsmouth Harbour and were also docking at the Saxon port of *Hammic*. The Anglo-Saxon Chronicle records that in AD 501 'Port and his two sons...came to Britain with two ships at the place which is called Portsmouth' (Cunliffe 1976: 1). The Victoria County History records historic events associated with the Solent, such as the embarkation of Edward I in 1114 and 1123 (Doubleday and Page 1920). The strategic advantages of the Solent were such that King John had a number of galleys permanently stationed at Portsmouth, for which an enclosed dock was ordered in 1212. England's first dry-dock in was built at Portsmouth in 1496 in what was to become the Royal Dockyard. All these references testify to the regular use of the Solent as a shipping lane.

The Solent can therefore be considered to have been in use for shipping for over 2000 years. However, it was the years between 1650 and 1800 that were of vital importance for the region as Portsmouth and Southampton grew and the Solent area acquired a status that was both national and international. The volume of traffic and the congestion caused by the (relatively) narrow waterway are hazards that can be expected to have caused maritime casualties in the past. In addition to the potential for wrecks, consideration should be given to the potential for stray items, lost or thrown overboard within the Solent over the centuries that are now of archaeological interest.

15.3.2

Past Impacts

Two types of site may be present within the marine section: drowned prehistoric sites and landscapes; and shipwrecks and associated material. Both these site types are likely to have been subject to disturbance prior to any potential effect arising from this development.

The main processes militating against the survival of prehistoric land-surfaces and any associated sites are the reworking of those deposits during the course of marine transgression. Wave and tidal action are likely to have repeatedly eroded and deposited former terrestrial material, washing out fine sediments, abrading otherwise robust artefacts and exposing organic materials to chemical and biological decay. That sites do survive this process is evidenced by the survival of many peat horizons and drowned forests around the coast of England.

The process of wreck formation is itself likely to be the main source of previous disturbance to wrecks within the marine section of the study area, as vessels reaching the seabed are likely to suffer various forms of collapse and decay before

stabilising. The main post-depositional processes active in the area are likely to be sand movement and trawling. Sand movement may expose and rebury wreck, causing periodic instability that leads to physical, biological and chemical decay.

Previous terrestrial impacts to archaeology within the study area include erosion, development (of both buildings and roads) and agricultural land use. Medieval and modern arable farming practices, and the construction of the current roads, are the most likely general agents of damage to any buried archaeology within the study area. Specific additional agents at Lepe include the construction of the car parks and visitor centre.

Where it exists, the construction of the existing water main may also have caused damage to any archaeological sites and finds, both in the area of the pipe trench and the associated working corridor. Evaluation would be required to determine the extent of any damage.

15.3.3

Construction Impacts: New Forest

- I.1. A range of Neolithic to medieval finds have been made approximately 140m to the east of the proposed drill rig site in the arable field in which the construction works will be undertaken. Any ground disturbance such as topsoiling and the excavation of connection chambers within this arable field therefore has the potential to **adversely impact** upon unknown buried archaeological features. The level of impact would however be dependent on the significance of the artefact if a discovery is made.
- M.1. An archaeological watching brief will be provided during any excavation works at Lepe. If articles of interest are discovered, works will be stopped and they would be recorded by a qualified archaeologist.
- I.2. The entry point for the horizontal direction drilling will be extremely limited and therefore it is likely that this will have **no significant impact**.

15.3.4

Construction Impacts: Isle of Wight

- I.3. Finds have been made (e.g. Roman coin, medieval pottery and Mesolithic/Neolithic flint piece and axe) in an area lying approximately 125m to the west of the site and therefore any ground disturbance at Gurnard such as topsoiling and the excavation of connection chambers

has the potential to **adversely impact** upon unknown buried archaeological features. The level of impact would however be dependent on the significance of the artefact if a discovery is made.

- M.3. An archaeological watching brief will be provided during any excavation works at Gurnard.
- I.4. The entry point for the horizontal direction drilling will be extremely limited and therefore it is likely that this would have **no significant impact**.
- I.5. The proposed works at the drill rig site at West Gurnard will have **no significant impact** upon the setting of the Grade II Listed Building (Hillside) lying in close proximity to the access into the working site, considering that the construction works will be temporary in nature.

15.3.5

Construction Impacts: Marine Area

- I.6. The proposed works will avoid all archaeological find sites including maritime features (e.g. **ID 2003**) in and around the intertidal areas as the twin pipeline will be drilled at depth beneath the seabed in these areas. Consequently, **no significant impacts** on archaeological finds and sites in the areas between the drill rig sites and the points at which the pipelines emerge onto the seabed are anticipated.
- I.7. However, the proposed pipeline will run through an area of reported obstructions (**2005 – 2007** fishermen's fastening). It is possible that this debris has come from the dispersal of the Algerian (**2001**), which lies 500m west of the obstructions, although the presence of natural features or debris from an uncharted wreck cannot be ruled out. Depending on the origin of the obstruction, the impact could range from **no significant impact to moderate adverse**.
- M.7. Care will be taken during the works to ensure that any maritime archaeological features are avoided. Archaeological interpretation of the geophysical survey is being undertaken by a suitable qualified archaeologist.
- I.8. Laying the pipe by jetting in the central marine section, may also **adversely impact** upon unknown archaeological features present to a

depth of approximately 1.5m. The level of impact will however be dependent on the significance of the artefact if a discovery is made.

- I.9. The directional drills, which are estimated to penetrate up to 900 metres, could impact upon stratified deposits and Palaeolithic peat beds, if these are present in the foreshore and marine area. Core of the ground from the marine area will reveal the presence or absence of peat beds in the area. Information relating to the archaeological analysis of marine cores taken during recent marine ground investigatory works will be forwarded when they become available.

15.3.6

Operational Impacts

- I.10 The proposed pipeline scheme is unlikely to have any additional long-term impacts upon archaeological features within the study area to those already presented as construction impacts.