

Studland Bay Wreck Conservation Statement & Management Plan.



Divers surveying the site in 1990

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Executive Summary

The Studland Bay wreck is that of an Iberian merchant ship lost in Poole Bay in the early 16th Century.

The Studland Bay wreck was discovered January 1984 when fishing gear snagged on an unidentified seabed obstruction was investigated by divers revealing a large timber structure with ceramic fragments visible in the sand covering it. A large scale excavation and recording exercise took place between 1984 and 1992 revealing the keel section of the vessel and a third area consisting of a scattering of artefacts and large breech loading guns.

At the end of 1992 the site was reburied and since that time it has been bi-annually monitored by the Poole Bay Archaeological Research Group led by Mike Markey. These dives confirmed the safety of the site and showed that the strategies for its protection were effective, apart from occasional evidence that anglers' hooks had caused a slight degree of disturbance.

The site was reassessed in 2016 by Bournemouth University which showed that the main areas of the wreck remain buried with the exception of the concretions in Area 3 and localised scour around them revealing some small timbers.

The site was designated under the Protection of the Wrecks Act (1973) as the Studland Bay Wreck in on 1984. The current designation extends for a radius of 75m from the position: 50°39.69'N 001°54.87'W (WGS84).

This Conservation Statement and Management Plan has been produced to enable local, regional and national stakeholder involvement in Historic England's aspirations for the conservation management of the Studland Bay to balance conservation with economic and social needs. The principle aim of this plan is to identify a shared vision of how the values and features of the Studland Bay Wreck can be conserved, maintained and enhanced.

The following management policies have therefore been developed:

Management Policy 1: We will seek to continue to support and develop authorised access, including digital access, to the site as a mechanism to develop the instrumental value of the Studland Bay Wreck.

Management Policy 2: Through liaising with Poole Museum and other stakeholders we will seek to facilitate the production of interpretive material for the marine historic environment at appropriate locations.

Management Policy 3: Through web-based initiatives we will seek to make the site archive publicly accessible and support appropriate links to enlist effective local public support and understanding

Management Policy 4: Mechanisms will be identified and implements so as to develop shared ownership of the site.

Management Policy 5: During the annual inspection and where projects are commissioned on the site we will seek to encourage the use of the site as a training resource where it is appropriate.

Management Policy 6: We seek to commission a staged programme of assessment and research to contribute towards the understanding of the Studland Bay Wreck.

Management Policy 7: We will seek to encourage the communication and collaboration between the custodians and researchers of other early 16th century Iberian wreck sites to establish where the Studland Bay sits and if it can fill any key gaps in the understanding of the period and ships of the time.

Management Policy 8: We will seek to continue the programme of environmental monitoring of the site.

Management Policy 9: We will seek to encourage the production of a project plan will to assess the long term status of the in situ protection placed in the early 1990s and the condition of the buried archaeological material.

Management Policy 10: This CS&MP will be reviewed and updated on a regular basis to reflect the conditions and knowledge pertaining to the site.

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1. Introduction

1.1. Project Background

- 1.1.1. Wreck sites may contain the remains of vessels, their fittings, armaments, cargo and other associated objects or deposits and they may merit legal protection if they contribute significantly to our understanding of our maritime past. The Protection of Wrecks Act 1973 (PWA 1973) allows Government to designate, in territorial waters, an important wreck site so as to prevent uncontrolled disturbance.
- 1.1.2. Although the National Heritage Act 2002 enabled Historic England to assist in costs relating to works under the Act, the responsibilities of Historic England for the physical management of designated wreck sites must align with our strategic priorities as set out in the Corporate Plan 2017 to 2020. Here, we seek to identify and protect England's most important heritage.
- 1.1.3. In order to guide an understanding of the special interest and cultural values of each site, Historic England's Conservation Principles, Policies and Guidance for the sustainable management of the historic environment will provide the foundation to contextualise change. As such, conservation is taken to be the process of managing change in ways that will best sustain the values of a place in its contexts, and which recognises opportunities to reveal and reinforce those values (Historic England, 2008).

1.2. Purpose

- 1.2.1. This document seeks to set out a 'Conservation Statement and Management Plan (CS&MP) for the Studland Bay Wreck, an archaeological site designated under the Protection of the Wrecks Act 1973, lying to the south of Hook Sand, Poole Bay, Dorset.
- 1.2.2. The Studland Bay Wreck is attributed the National Monuments Record (NMR) number 1082101 and the National Heritage List for England number 1000045.
- 1.2.3. Historic England has published a set of Conservation Principles, Policies and Guidance for the sustainable management of the Historic Environment (Historic England, 2008). These conservation principles are intended to support the quality of our decision-making, with the ultimate objective of creating a management regime for all aspects of the historic environment that has a clear and sustainable purpose.
- 1.2.4. The Conservation Statement and Management Plan has therefore been produced to enable local, regional and national stakeholder involvement in identifying aspirations for the conservation management of the Studland Bay Wreck.

1.3. Aims and Objectives

- 1.3.1. The principle aims of this Conservation Statement and Management Plan is to identify a shared vision of how the values and features of the Studland Bay Wreck can be conserved, maintained and enhanced and balance conservation with economic and social needs.
- 1.3.2. This will be achieved through the following objectives:

- Understanding the Studland Bay Wreck
- Assessing the significance of the Studland Bay Wreck
- Identifying where the significance of the Studland Bay Wreck is vulnerable
- Identifying policies for conserving the significance of Studland Bay Wreck
- Realising the public value of the conservation of the Studland Bay Wreck
- Identifying Management Policies.

1.4. Scope

- 1.4.1. Heritage 2020 sets out how heritage organisations will work together to benefit the historic environment. It is coordinated on behalf of the whole sector by the Historic Environment Forum. The Historic England Action Plan forms Historic England’s contribution to Heritage 2020. This Action Plan details how the objectives of Historic England’s Corporate Plan will be delivered and provides an estimate of the resource needed. Assessing the significance of England’s Protected Wreck Sites is an acute priority identified within Historic England’s Action Plan, while individual Conservation Statements & Management Plans assist with an improved understanding of the significance and character of these priority areas of our heritage.
- 1.4.2. Practical measures that can conserve maintain and enhance the values and features of the Studland Bay Wreck identified as being at risk will be delivered through this Conservation Statement and Management Plan.
- 1.4.3. There are currently 53 historic wrecks in English waters protected under the PWA 1973, access to these sites is managed under a licensing scheme and authorisation from the Secretary of State for the DCMS.

1.5. Authorship

- 1.5.1. This document is prepared by Bournemouth University (BU), with contributions through stakeholder involvement. Full Acknowledgments of those who contributed to, or were consulted on, its preparation will be presented on the final version.
- 1.5.2. This document is based on the Historic England *Standard for Conservation Statements for Historic England sites* and draws on the Conservation Statement and Management Plans for the *Rooswijk* (Dunkley, 2009); the *Stirling Castle* (Dunkley, 2008) and the *Invincible* (Pascoe & Cowan, 2016).

1.6. Status

- 1.6.1. This plan is in the draft/consultation phase and has yet to be adopted by Historic England.

2. Understanding the Studland Bay Wreck

2.1. Historical Development of the Designated Site

- 2.1.1. The Studland Bay Wreck is that of an early 16th century Iberian trade vessel, the exact identity and date of the vessel is still unknown.

- 2.1.2. A local fisherman, Gerry Randel, discovered the wreck in January 1984 when his fishing gear was snagged on an unidentified seabed obstruction, members of the Hamworthy Sub-Aqua Club (HSAC) found that the obstruction was a large timber structure (Area One) with ceramic fragments visible in the sand covering it (Ladle, 1993, p. 4). This discovery was reported to Poole Museum.
- 2.1.3. HSAC returned to the site in May 1984, under the direction of Ian Horsey and the museum staff, to undertake a preliminary survey to ascertain the size and nature of the wreck and to recover samples of the ceramics visible on the site. Several sherds of pottery, a stone cannonball and a sample of the ballast were recovered; leaving majority of this material *in situ*. The pottery sherds were subsequently identified by the museum staff as Iberian in origin and dated to the early sixteenth century. Almost the entirety of the starboard side of a large merchant ship was found and investigated by a team of diver lead by Poole Museum. Further survey work revealed the keel section of the vessel and a third area consisting of a scattering of artefacts and large breech loading guns.
- 2.1.4. The site was designated on 22 October 1984 under the Protection of the Wreck Act 1973. This designation came into force 27th November 1984 (SI1984/1658). However this designation did not cover the wreck.
- 2.1.5. In 1986, Area Two was located and a scaffold grid was set up over Area One in preparation of the excavation of the site. During 1987 the scaffold grid was replaced and detailed plans of the hull structure were created, with accompanying hull profile. Work continued in Area One in 1988 and all visible ballast in the area was raised for analysis. The site was then re-designated in December 1988 to include Areas One and Two under the SI1988/2137
- 2.1.6. In 1989 work ceased in Area One and the focus of the excavation and survey moved to Area Two revealing the keel and floor timbers, work continued in 1990 despite the very poor underwater conditions with further excavation being undertaken in Area Two and Area Three
- 2.1.7. During the 1991 season two trenches and trial holes were excavated in Area Three, which provided a mass of timbers and finds. In all, some 200 artefacts were recovered, including leather soles/shoes, a comb, a wooden bowl, three stone cannon balls, a complete top stone of a rotary quern and many ceramics whose condition was remarkable compared to the abraded pottery from Areas One and Two.
- 2.1.8. At the end of each season the site had been protected by covering it with tarpaulins and sandbags which had proved to be an effective means of short term protection of the site (Dean, 1990). It was noted that despite mechanical impact, it seemed that the strategy adopted for site protection had been reasonably successful, although it was noted that the true state of the buried wreck structure could not be readily assessed (Ferrari, 1991).
- 2.1.9. At the end of 1992 these were re-laid onto the site. Since that time the site has been monitored annually by the Poole Bay Archaeological Research Group led by Mike Markey. These dives confirmed the safety of the site and showed that the strategies for its protection

were effective, apart from occasional evidence that anglers' hooks had caused a slight degree of disturbance (Markey, 1994-2003). A second re-designation occurred in 1998 to cover all three areas under the SI1998/1746. During the 2002 visit the base of a glazed white bowl, a concretion and a substantial timber, which may or may not have been associated with the site were noted, photographed and left *in situ* (Markey, 2002). The Poole Bay Archaeological Research Group continued the monitoring of the site until 2015.

2.1.10. The site was reassessed in 2016 by Bournemouth University which showed that the main areas of the wreck remain buried with the exception of the concretions in Area Three and localised scour around them revealing some small timbers.

2.1.11. The known information of the Studland Bay Wreck may be presented as a summary *Ship Biography* which draws together the main attributes of the site and provides a statement of the site's archaeological interest

Build The significance of the Studland Bay wreck is its historical value as a ship built most probably in northern Spain at the start of the 16th century. As such the recorded hull structure can tell us much about the ships from this highly significant period.

The construction details recorded in the Studland Bay wreck have helped archaeologists to define a typology of construction features associated with Iberian and more specifically Basque (Northern Spain) ship-building techniques.

Use The Studland Bay wreck has been identified as a boat of Basque manufacture. Basque ships dominated Spanish international trade during the Middle Ages and later, playing a crucial role in circuits with northern Europe, with the New World and in royal fleets, including the Spanish Armadas.

They are regularly registered as arriving in England, mainly with iron but also with figs, wine, sugar and soap, and leaving again with wheat and cloth.

Loss With no historical event to attach to the loss of the Studland Bay Wreck the exact manner of the loss of the vessel is unknown. However from the archaeological evidence it is clear that the vessel was wrecked in the early 16th century.

One potential candidate is the *Santa Maria De Luce* from Lushbourne (Lisbon) an Iberian vessel mentioned in the state papers of 1546 which mentions the salvage of 9 iron guns and an elephants tooth from the vessel outside of Poole (BHO, 1908).

Survival The site survives in three main sections; the areas of structure are buried under sandbags and polypropylene sheeting with no non-intrusive way of assessing their current condition.

Area One contains the entire length of a portion of the starboard side,

22.5m long and 3-5m wide. This section consists of two rows of framing and 13 runs of strakes.

Area Two contains a section of the bottom of the vessel measuring 12.5 by 2.15m consisting of the keel crossed by a series of floors and the ends of the first futtocks, with the lower part of the stern post

Area Three contained a “mass of timbers and finds”.

Areas One and Two were reburied with sandbags and geotextiles and are currently protected with no exposed archaeological material being visible on the surface, beyond the ballast which was re-deposited above the *in situ* protection. Area three contains one large concretion c.2m in length which has been provisionally identified as potentially being another gun and a smaller concretion slightly to the south which may be a breech with small timbers exposed below.

Investigation Work on the site was undertaken by groups of amateur divers between 1984 and 1992 co-ordinated initially by the Poole Maritime Trust and later by the Poole Bay Archaeological Research Group, in both cases under the archaeological direction of Poole Museum. Excavation on the site ceased in 1992.

Between 1992 and 2015 the site was monitored by the Poole Bay Archaeological Research Group and post 2015 by Bournemouth University.

2.2. Description of Surviving Features

- 2.2.1. The Studland Bay wreck lies at a charted depth of 12m in a layer of muddy sandy gravel over a bedrock of clay. The site is defined by three areas approximately 40m apart from each other (appendix 2).
- 2.2.2. Area One featured the entire length of a portion of the starboard side, 22.5m long and 3-5m wide. This section consists of two rows of framing and 13 runs of strakes which was excavated between 1984 and 1988, the structure was backfilled with sediment and covered with woven polypropylene sheeting secured with sandbags. The area is now defined by the scattered remnants of heavily corroded scaffold poles and sandbags buried in the sediment with no archaeological features visible. The current condition of the structure under the *in situ* protection is unknown.
- 2.2.3. Area Two featured a section of the bottom of the vessel measuring 12.5 by 2.15m consisting of the keel crossed by a series of floors and the ends of the first futtocks, with the lower part of the stern post found nearby. Survey work on this area of the site ceased in 1992 and the protected in a similar way to Area One. This area is now defined by partially exposed sandbags and ballast stone in the sediment with no archaeological features visible. The current condition of the structure under the *in situ* protection is unknown.

- 2.2.4. Area Three consisted of a wide scattering and shallow deposit of archaeological material associated with the wreck including the gun raised in 1989. A large 2m long concretion is present in this area which is thought to be another gun as well as a smaller possible breach to the south; small timbers were observed in the vicinity of these concretions in 2016.

2.3. Ownership, Management and Current Use

- 2.3.1. As an unknown ship the ownership cannot be established.
- 2.3.2. Physical access to the site is limited to divers accompanied by a named site licensee with material raised from the wreck held by Poole Museum.
- 2.3.3. In terms of access to the material Poole Museum have a small display on the site showing the stem post and a selection of the key finds. Poole museum have also published a small booklet on the wreck (Ladle, 1993). A full publication of the site has been commissioned by Historic England to be undertaken by BU and is forthcoming (Parham, et al., 2017).
- 2.3.4. The Archaeological Diving Unit visited the site eight times between 1984 and 1999 (Archaeological Diving Unit, 1998) noting that that the site was well covered in their last inspection. During this visit the ADU noted a large magnetic anomaly 250m to the north-west of the site which was suggested by the acoustics to be buried ferrous material (Archaeological Diving Unit, 1998). Wessex Archaeology (2006) conducted a Sidescan survey over the area which noted several anomalies which were investigated further by the Licensee team in 2007 (Markey, 2007) but did not reveal any archaeological material.
- 2.3.5. Although the site is managed by Historic England and was assessed by the ADU in 1984, ongoing survey and monitoring work was largely undertaken through licensed activity by the Poole Bay Archaeological Research Group up to 2015. In 2016 Bournemouth University took over the monitoring of the site.
- 2.3.6. The current licensee is Tom Cousins of Bournemouth University.
- 2.3.7. An artificial reef was created and monitored by the Ocean and Earth Science, National Oceanography Centre Southampton at the University of Southampton in 1989, this was originally positioned 50m to the north of Area One and thought to be outside the protected zone (Pers. Comm. Ken Collins) however the latest bathymetric surveys show the reef to be partially inside the protected zone on the seabed.

2.4. Gaps in Existing Knowledge

- 2.4.1. Searches in contemporary reports to the loss of an 16th century wreck in the vicinity of Poole have revealed one candidate the *Santa Maria de Luce* of Lussheborne which was mentioned in the state papers as being salvaged outside of Poole before 1546. Although the records suggest that Lussheborne is an alternative spelling for Lisbon, the vessel is reported to be owned by Spaniards and the guns salvaged are given their Spanish names rather than the Portuguese names in other contemporary records. The record also state that she was salvaged by ships belonging to the bailiff of Newport, Isle of Wight. Local records from Poole

and Newport may provide more information on the vessel and the salvage to confirm the wrecks candidacy.

- 2.4.2. The timbers chosen for dendrochronological analysis did not cross match each other and none of the individual series were successfully matched to available reference data. Carbon dating and wiggle matching was performed on the timbers giving us a date of 1470-1515. Since the production of this work further research has been conducted into the Iberian dendrochronological sequences as well as developing new analytical techniques which may provide a more precise date for the ship (For Seas Discovery, 2014).
- 2.4.3. At the end of the excavation the site was protected in situ using sandbags and tarpaulin. Despite mechanical impact, the strategy adopted for site protection seems to have been successful with no archaeological material or hull structure exposed in the area, although it was noted that the true state of the buried wreck structure could not be readily assessed (Ferrari, 1991).

3. Assessment of Significance

3.1. Basis for Assessment of Significance

- 3.1.1. Significance means the sum of the cultural and natural heritage values of a place (Historic England, 2008). Cultural heritage value has many aspects, including the potential of a place to yield primary information about past human activity (evidential value, which includes archaeological value), the ways in which it can provide direct links to past people, events and aspects of life (historical value), the ways in which people respond to a place through sensory and intellectual experience of it (aesthetic value, which includes architectural value) and the meanings of a place for the people who identify with it, and communities for whom it is part of their collective memory (communal value).
- 3.1.2. In addition, the historic environment is a cultural and natural heritage resource shared by communities characterised not just by geographical location but also by common interests and values. As such, emphasis may be placed upon important consequential (technically, 'instrumental') benefits or potential, for example as an educational, recreational, or economic resource, which the historic environment provides. The seamless cultural and natural strands of the historic environment are a vital part of everyone's heritage, held in stewardship for the benefit of future generations.
- 3.1.3. The basis for assessing significance therefore enables consideration of the varying degrees of significance of different elements of the site. By identifying those elements which are vital to its significance and so must not be lost or compromised, we are able to identify elements which are of lesser value, and elements which have little value or detract from the significance of the site.

3.2. Statement of Significance

- 3.2.1. The significance of the Studland Bay wreck is in its historical value as an Iberian ship built most probably in northern Spain during or at the end of the great Age of Discovery. As such the recorded hull structure can tell us much about the ships from this highly significant period. The construction details recorded in the Studland Bay wreck have helped archaeologists to define a typology of construction features associated with Iberian and more specifically Basque ship-building techniques. With the sizeable amount of hull surviving the evidential significance is greatly increased. The lack of a confirmed historical identity does not detract from the sites significance.
- 3.2.2. The gun recovered of the site adds to the significance as it unique in the corpus of surviving 16th century wrought iron artillery as to the form and construction of the bed on which the barrel and powder chamber are secured. The iron frame, backed with wood, is unparalleled among known examples. Though it is difficult to be sure of its dating it is tempting to believe that it is an earlier form and dates from the first two decades of the 16th century. Unfortunately we do not have sufficient evidence, as yet, to pinpoint where it was made.
- 3.2.3. The site has added significance as added it is currently the most important group of Seville lustreware and tin glaze decorated in blue and purple recovered from an archaeological context in Europe and the Americas. While some of the tin-glazed pottery manufactured in Seville in the 16th and 17th centuries was a well-known import in countries outside of Spain, lustreware has never before been identified on any archaeological site.
- 3.2.4. The following table seeks to summarise these values of the Studland Bay Wreck as a whole, by noting how those values relate to the surviving fabric and it's constitute parts.

Evidential	Relating to the potential of the Studland Bay Wreck to yield primary information about past human activity; excavation has shown substantial elements of the hull structure, fittings, guns and associated object has survived. Selections of artefacts relating to life on board vessel of this type have also been recovered along with the only known gun of its type with an iron framed bed.
Historical	Relating to the ways in which the Studland Bay Wreck can provide direct links to past people, events and aspects of life, the wreck is unidentified. One piece of historic evidence suggests that the vessel may be the <i>Santa Maria de Luce</i> however further research would need to be conducted to confirm if this is a viable candidate. No other historical candidates have been found to match with the site to date. The site has great potential for informing us of the aspects of life at sea in the 16 th century.
Aesthetic	Relating to the ways in which people respond to the Studland Bay Wreck through sensory and intellectual experience; the wreck's strength lies in her being an Iberian trading ship from the age of discovery and European expansion. The museum display on the wreck and its longevity has also had an impact on the aesthetic significance of the Studland Bay Wreck.
Communal	Relating to the meanings of the Studland Bay Wreck for the people who identify with it, and whose collective memory it holds; from the original project team members who have a long history of association with the

wreck, to the more recent investigation and survey by BU. Poole Museum has had a large connection with the wreck since the projects providing guidance and accessioning the artefacts which are on display.

Instrumental Economic, educational, recreational and other benefits which exist as a consequence of the cultural or natural heritage values of the SBW may be identified as her value as a museum exhibit in Poole Museum. The remains of the wreck also have an instrumental value. There is also instrumental value in the remains of the vessel as an 16th Century Iberian ship, however the current condition is unknown.

3.3. Gaps in Understanding Significance

3.3.1. The assessment of significance has not been acutely hindered by any gaps in knowledge identified in Section 2.4 above. However, certain key gaps in our understanding of the significance of the component parts of the site may need to be filled so these significances can contribute to informing its future conservation management.

3.3.2. Since 1992 the site has been buried under a layer of tarpaulin and sandbags in order to provide a level of *in situ* protection. This protection appears to have worked with no structure exposed in the areas covered however without intrusive investigation the true state of the protected timber is currently unknown.

3.4. Statutory and Other Designations

3.4.1. Statutory Instrument 1998/1756 affords protection to a circular area of seabed (radius 75m) around position 50°39.65N 001°54.79W (OSGB36) [50°39.69'N 001°54.87'W (WGS84)], under the Protection of Wrecks Act 1973. The National Grid Reference is SZ 06137 84641. This superseded the previous Statutory Instruments 1984/1658 and 1988/2137 attached to the site.

3.4.2. Archaeological interventions that impact the seabed may require a licence issued by the Marine Management Organisation under the Marine and Coastal Access Act 2009 and a licence from the Crown Estate.

3.4.3. In addition, section 40 of the National Environment and Rural Communities act (2006) places a duty on all public bodies to have regard to biodiversity (Natural England, 2006).

4. Issues and Vulnerability

4.1. Introduction

4.1.1. This section summarises the main conservation and management issues that affect the significance of the Studland Bay Wreck and its component parts and elements.

4.1.2. Vulnerability may be assessed against environmental factors and human impacts on the site including the setting.

4.1.3. It is accepted that all wreck sites are vulnerable because of the nature of their environment, for a site to be considered at risk there must be a threat of damage, decay or loss of the

monument. Current assessment indicates that sites are at a medium or high risk unless they are buried below bed level during successive tidal cycles. However a programme of positive management may mitigate the loss, deterioration or damage of the monument through natural processes.

4.1.4. Practical measures that affect site stability, preservation *in situ* and increased visitor access will be addressed in this document.

4.1.5. Issues relating to the values identified in the statement of significance are presented thematically rather than in order of severity or priority for remedial action. Relevant issues cover a wide range, including

- The physical condition of the site and its setting
- Conservation and presentation philosophy
- Ownership and legal requirements
- The existence of appropriate uses
- Resources, including financial constraints and availability of skills
- Lack of information or understanding about aspects of the site
- Conflicts between types of significance

4.2. The Physical Condition of the Site and its Setting

4.2.1. The site lays to the south of Hook Sands at the entrance to Poole harbour at a depth of 12m in a bed of muddy sandy gravel, mobile sands have been reported to cover the site. The seabed in this area seems relatively stable with fluctuations recoded between 2005 and 2015 of ± 50 mm with no exposure of archaeological material.

4.2.2. The condition of the main areas of articulated hull is unknown and has been buried under a layer of woven polypropylene sheeting and sandbags, remaining superficially protected, however as the structure is buried no condition assessment can take place unless intrusive methods are used to remove the *in situ* protection. Inspections of the site in 2016 showed that the two main areas remain covered but some small timbers were observed in Area Three.

4.2.3. In 2004 Wessex archaeology undertook a Sidescan Sonar survey of the site (Wessex Archaeology, 2006) which was groundtruthed by the licensee team the following year, it did not identify any new features (Markey, 2007).

4.2.4. A series of sediment monitoring rods were placed across the site and have been monitored for the last 10 years showing very little change in the sediment levels over this time. It is clear that the sediment levels on the site are relatively stable with very little change for the last 10 years. However the status and condition of the buried archaeological material is unknown. Site inspections in 2016 showed these rods to be heavily corroded and in need of replacement.

4.2.5. As part of Poole Harbour Commissioners maintenance dredging protocol licence from the MMO (PHC, 2016) the site will bathymetrically surveyed every six months with annual diving

inspections by the licensee team these will be examined and commented on in the annual site reports. The first of these surveys took place in 2016 and will provide the baseline for all further work (Appendix 2).

- 4.2.6. An artificial reef was created and monitored by the Ocean and Earth Science, National Oceanography Centre Southampton at the University of Southampton in 1989, this was originally positioned c. 50m to the north of the site and thought to be outside the protected zone (Pers. Comm. Ken Collins). This reef consists of a series of cement stabilised pulverised fuel ash blocks (Jensen, et al., 2000) and was later supplemented with scrap rubber tyres in 1998 (Collins, et al., 2002). Only the southern half of the area is in the protected zone and no archaeological material has been found within the region of the reef. Multibeam surveys taken in 2016-2017 show the seabed between the reef and wreck to be relatively flat and stable with no evidence of the two impacting on each other.

4.3. Conservations and Presentation Philosophy

- 4.3.1. The artefacts recovered from the site are held by Poole Museum who have a display on the wreck showing the stempost and a selection of the small finds accompanied by limited interpretation and a short video of diving on the site in the 1990s, the museum have also published a small pamphlet on the site (Ladle, 1993). The museum are currently undergoing a bid with the HLF to update their maritime collection and displays, incorporating both the Studland and Swash wrecks (pers. comm. Sue Beckett).
- 4.3.2. Detailed site plans and profiles of the two main areas were produced as well as a photomosaic of Area One, find positions exist relative to the plans; these have been digitised by BU. The multibeam survey conducted in 2016 will be used to georeference the plans of the three areas and plot the finds into real world positions.
- 4.3.3. There is no interpretive signage associated with the wreck; the old coastguard hut at the National Trust carpark at Studland overlooking the site has some interpretation claiming the site to be the *San Salvador*. There is currently no interpretive information on the wreck available online.
- 4.3.4. The site is marked by a special purpose protected wreck buoy. The site does not appear to be at risk from interference and the site is highlighted on modern chart plotters making this buoy surplus to requirements, the sinker however could be repurposed as a permanent mooring to establish the annual monitoring of the site.

4.4. Visitor and other Occupancy Requirements

- 4.4.1. No plans are in place for a diver trail on the site, given the sites current condition with no exposure of archaeological material a physical dive trail will be limited to the exposed concretions in Area Three.
- 4.4.2. Mike Markey of the Poole Bay Maritime Archaeology Group held the site licence between 1996 and 2015. Since then Tom Cousins of BU has held the licence enabling the survey of the site by the student cohort of the MSc Maritime Archaeology at BU. Ken Collins of the

Southampton National Oceanographic Centre is an additional licensee to enable the survey of the artificial reef which is partially inside the protected zone without issue.

- 4.4.3. By combining the site archive into an updated GIS and database system it may be feasible to create a digital trail showing the parts of the ship and the artefacts recovered.
- 4.4.4. Physical access to the site is limited by divers accompanied by the site licensee(s) anyone wishing to dive the site is encouraged to contact the licensee. This has allowed the site to be accessed by other diving groups including members of the old licensee team.
- 4.4.5. The site is overlooked by a popular section of the South West Coast Path on land owned by the National Trust. The potential for an interpretive panel with details on the maritime archaeology of Studland and Poole Bay should be discussed with the NT.

4.5. The Existence (or Lack) of Appropriate Uses

- 4.5.1. Enforcement of the Protection of Wrecks Act 1973 is the responsibility of the appropriate County Constabulary as it is a criminal offence to any of the following in a designated area without a licence granted by the appropriate Secretary of State:
 - Tamper with, damage or remove any part of a vessel lying wrecked on or in the seabed or any object formerly contained in such a vessel.
 - Carry out diving or salvage operations directed to the exploration of any wreck or to removing objects from it or from the seabed, or uses equipment constructed or adapted for any purpose of diving or salvage operations. This is likely to include deployment of remotely operated vehicles.
 - Deposit anything including anchors and fishing gear which, if it were to fall on the site, would obliterate, obstruct access to, or damage any part of the site.
- 4.5.2. It is also an offence to cause or permit any of the above activities to be carried out by others, without a licence, in a restricted area.
- 4.5.3. No illegal diving has been reported on the site however reports of impacts to the site from anglers and commercial fishermen have been prevalent throughout the life of the project. Letters were sent to the commercial fishermen based in the harbour in 2015, no evidence of impacts to the site from fishing gear has been seen after this date. There is however an abundance of discarded fishing and survey gear across the site which could be cleared to aid the monitoring of the site.
- 4.5.4. The artificial reef was deposited in 1989 under the authority of a FEPA licence. With the benefit of modern navigational equipment, unavailable in 1989, it can now be determined that it appears to have been deposited inside the protected zone as designated in 1988. The licensee team were provided with a centre of the designated area in relation to the site plans by the ADU. With no accurate form of navigation then available the team had no way of checking the accuracy of the position provided and took it in good faith. The original placement of the reef was precisely measured out from this mark to be beyond the 75m designated area. However modern navigation systems and seabed mapping show that the

provided centre of the designated area did not match up to the coordinates stated in the Statutory Instrument, a common occurrence which manifested itself in the original 1984 designation of the site where the SI does not actually cover any part of the wreck. The custodian of the reef, Dr Collins, has been made an additional licensee of the site, reports dives and will provide names of divers to the principle licensee. Prior to the changes in the licensing system Dr Collins was a named member of the licensee team. High resolution multibeam bathymetry (<0.1m) of the area taken in 2016 has shown the area between the reef and the wreck to be featureless with no obvious scour or impacts on the wreck, no artefacts have been found within the area of the reef and it does not obstruct access to the site. Consequently the reef has been determined to have no apparent adverse impact upon the designated site.

4.6. Resources, Including Financial Constraints and Availability of Skills

- 4.6.1. There is no doubt that the recovery of archaeological material, including some hull structure indicates the evidential value of the Studland Bay Wreck and that interaction with the material relates to both the aesthetic and historical value. This is further increased from the display about the wreck housed in Poole Museum
- 4.6.2. The site archive is held by Poole Museum, with the document archive currently on loan to BU who have digitised the work.
- 4.6.3. As part of their dredging recording protocols PHC (PHC, 2016) have agreed to a six monthly bathymetric survey of the Studland Bay Wreck along with funding for an annual site inspection by the BU dive team. The educational value of the site will be increased by involving students and volunteers with an interest in maritime archaeology.
- 4.6.4. Poole Museum have indicated that if any further work is to occur on the site that they would be willing to accession the finds after research and conservation.
- 4.6.5. In accordance with the Diving at Work Regulations 1997, archaeological interventions underwater commissioned by Historic England can only be undertaken by a registered Diving Contractor, and then only by such a Contractor with appropriate archaeological experience

4.7. Lack of Information or Understanding about aspects of the Site

- 4.7.1. *Taking to the Water* (Historic England's Initial Policy for the management of Maritime Archaeology) (Roberts & Trow, 2002) address the backlog from excavations and surveys on protected wreck sites. It was recognised that many of the survey and excavation licences issued over the past 25 years required the academic reporting of the field work results and as the majority of the work was completed a-vocationally the finances for the analysis and dissemination were lacking.
- 4.7.2. In the case of the Studland Bay Wreck Lillian Ladle published a small pamphlet on the wreck in 1993. (Ladle, 1993) This provided a basic outline on the site and the work done up until the excavations closed in 1992. Since then the archive has been held by BU and a second publication on the site is due out in the early part of 2017.

- 4.7.3. Poole museum had an extensive display on the wreck up until the mid-1990s where the focus of the museum moved from a maritime to local history. The current display consists of a cabinet with a selection of the small finds, the raised stempost, a contemporary video from the excavation and interpretive material.
- 4.7.4. There are several main areas that hinder public understanding of the site.
- More information is needed about the potential historic candidates for the wreck
 - More information is needed about the current condition of the timbers and the effectiveness of the *in situ* protection placed on the site in the 1990s
 - The archive should be fully digitised and the finds re-photographed to make them more accessible to the public.
 - More information is needed to see how the Studland Bay Wreck sits within the known assemblage of Iberian archaeological sites from the age of discovery, with particular attention to the latest research conducted in this field.
- 4.7.5. The current condition of the buried timber and the effectiveness of the *in situ* protection on the site are unknown, as the site has been covered since the mid-1990 there is no way of knowing the condition of the ship structure short of re-excavation.
- 4.7.6. It is the intention of this Conservation Management Plan to provide a mechanism to reconcile the lack of information/understanding about the site to assist in its management for all.

5. Conservation Management Policies

5.1. Introduction

- 5.1.1. This section of the CS&MP builds on sections 3 (Assessment of Significance) and 4 (Issues and Vulnerability) to develop conservation policies which retain or reveal the sites significance providing a framework for decision making in the future management and development of the site or reveal the sites significance meeting statutory requirements and complying with Historic England's standards and guidance.
- 5.1.2. It is intended that the policies will create a framework for managing change on the Studland Bay Wreck that is clear in purpose, and transparent and sustainable in its application. The aim is to achieve implantation through the principles of shared ownership and partnership balancing the protection of the site with economic and social needs.

5.2. The Studland Bay Wreck is a shared resource

- 5.2.1. The Studland Bay Wreck forms a unique record of past human activity which reflects the aspirations, ingenuity and investment of resources of previous generations. It may also be an economic asset as a generator of tourism or inward economic investment.
- 5.2.2. People value the Studland Bay Wreck as part of their cultural and natural heritage. It reflects the knowledge, beliefs and traditions of diverse communities. It gives distinctiveness,

meaning and quality to the places in which we live, providing a sense of continuity and a source of identity. It is a social and economic asset and a resource for learning and enjoyment

- 5.2.3. Learning and education at all stages is central to sustaining the historic environment. It raises people's awareness and understanding of their heritage, including varied ways in which these values are perceived by different generations and communities. It encourages informed and active participation in caring for the historic environment.
- 5.2.4. The Studland Bay Wreck therefore is a social asset as a resource for learning and enjoyment. Each generation should therefore shape and sustain the historic environment in ways that allow people to use, enjoy and benefit from it, without compromising the ability of future generations to do the same.
- 5.2.5. In addition, the conflict between the desire for access to the site and the restrictions imposed by conservation needs and legislative limitations will be reconciled through visitor management
- 5.2.6. Interpretive information on the site should be produced detailing the history and archaeology of the wreck.
- 5.2.7. *Management Policy 1: We will seek to continue to support and develop authorised access, including digital access, to the site as a mechanism to develop the instrumental value of the Studland Bay Wreck.*
- 5.2.8. *Management Policy 2: Through liaising with Poole Museum and other stakeholders we will seek to facilitate the production of interpretive material for the marine historic environment at appropriate locations.*

5.3. Everyone should be able to participate in the sustaining the Studland Bay Wreck

- 5.3.1. Local, regional, national and international stakeholders have the opportunity to contribute to the understanding and sustaining of the Studland Bay Wreck. Judgments about the values and decisions about the future of the Studland Bay Wreck will be made in ways that are accessible, inclusive and informed
- 5.3.2. Participants should use their knowledge, skill and experience to help other understand the value of the site. They will play a crucial role in communicating and sustaining the established values of the site encouraging other to understand, value and care for the site and helping others articulate the values they attach to the Studland Bay Wreck
- 5.3.3. Educational at all stages should help awareness and understanding of such values, including the varied ways in which these values are perceived by different generations and communities. It should also help people develop, maintain and pass on their knowledge and skills. The annual site inspection will be part of the training resources made available to students and volunteers with an interest in Maritime Archaeology.

- 5.3.4. Specialist skills and knowledge relating to the site should be maintained, developed and passed on. Written agreements with project partners should be developed to formulate a future strategy for continuing work on the site.
- 5.3.5. As the southern half of the artificial reef is within the protected zone, shared ownership of the site between the custodians of the reef need to be developed the current mechanism for this shared ownership is in the form of a joint licence, further mechanism may be identified in the future with the most extreme option to be the re-designation of the site.
- 5.3.6. 'Digital access' to the site could be created from a GIS system in combination with an updated site archive.
- 5.3.7. *Management Policy 3: Through web-based initiatives we will seek to make the site archive publicly accessible and support appropriate links to enlist effective local public support and understanding*
- 5.3.8. *Management Policy 4: Mechanisms will be identified and implements so as to develop shared ownership of the site.*
- 5.3.9. *Management Policy 5: During the annual inspection and where projects are commissioned on the site we will seek to encourage the use of the site as a training resource where it is appropriate.*

5.4. Understanding the Significance of the Studland Bay Wreck is vital

- 5.4.1. The significance of the Studland Bay Wreck embraces all the cultural and natural heritage values that are associated with it. To identify and appreciate those values, it is essential first to understand the structure and ecology of the site, how and why that changes over time and its present character.
- 5.4.2. Judgments about the value of the site are specific to the time in which they are made. As the understanding of the site develops and people's perceptions change alongside any physical changes the values, priorities and significance of the site and its features will evolve and tend to grow more complex.
- 5.4.3. The purpose of understanding and articulating the significance of the site is to inform decisions about its future.
- 5.4.4. We acknowledge that there are gaps in our understanding of the significance as set out in section 4.7 these could be addressed via a formal programme of staged assessment and is likely to comprise of the following stages:
- Collation and organisation of the digitisation site archive
 - Photographing and recording the entire finds collection
 - Geo-rectification of the finds and site plans against the bathymetry
 - Creation of a searchable finds database
 - Historic Research into the potential candidates for the Studland Bay Wreck.
 - Development of web-based method to bring the combined archive to the public

- 5.4.5. In addition to the archive assessment it is recommended that an assessment excavation should be conducted to see the long term viability of the *in situ* protection laid in the 1990s. A general clean-up of the site should also occur removing the hazardous scaffolding left from the excavation in the 1990s and the discarded fishing gear stockpiled on the site.
- 5.4.6. Collaboration between the custodians of the other wrecks of Iberian the age of discovery could be set up in order to fill any gaps highlighted in the collective knowledge of the period. There are ongoing projects which may inform us more about the site and increase the value of the Studland Bay Wreck.
- 5.4.7. *Management Policy 6: Key gaps in the understanding of the significance of the site are now being identified, prioritised and addressed so that these significances can contribute to informing the future conservation management of the site.*
- 5.4.8. *Management Policy 7: We will seek to encourage the communication and collaboration between the custodians and researchers of other early 16th century Iberian wreck sites to establish where the Studland Bay sits and if it can fill any key gaps in the understanding of the period and ships of the time.*

5.5. The Studland Bay Wreck should be managed to sustain its values

- 5.5.1. Changes to the site are inevitable and it is acknowledged that all wreck sites are vulnerable simply because of the nature of their environment. Action undertaken to understand natural changes will be proportionate to the identified risks and sustainable in the long term.
- 5.5.2. Intervention that caused limited harm to the value of the wreck will be justified if it increases our understanding of the past, reveals or reinforces particular heritage values, or is necessary to sustain those values for future generations, so long as any harm is outweighed by the benefits.
- 5.5.3. New work should aspire to a quality of design and execution, related to its setting which may be valued both now and in the future. This neither implies nor precludes working in traditional or new ways, but demands respect for the significance of a place in its settings.
- 5.5.4. The sediment levels across the site have been continually monitored and the site annually inspected every year. This monitoring should continue however the sediment rods would need replacing with stainless steel pins.
- 5.5.5. As part of the PHC's licence for the annual monitoring of the shipping channels, high resolution bathymetry will be taken bi-annually as well as pre and post dredging in the main channels to monitor if it has any effects on the site and its settings (PHC, 2016).
- 5.5.6. The site was subject to *in situ* protection after the excavation in the early 1990s since that date very little timber has been reported as having been exposed; however the effectiveness of this method of protection has not been established as it is buried its condition cannot be assessed.

- 5.5.7. *Management Policy 8: We will seek to continue the programme of environmental monitoring of the site.*
- 5.5.8. *Management Policy 9: We will seek to encourage the production of a project plan will to assess the long term status of the in situ protection placed in the early 1990s and the condition of the buried archaeological material.*
- 5.5.9. *Management Policy 10: this CS&MP will be reviewed and updated on a regular basis to reflect the conditions and knowledge pertaining to the site.*

6. Forward Plan

6.1. Introduction

- 6.1.1. In order to commence the implementation of the proposed Management Policies outlined in Section 5, Historic England is seeking to support projects that will increase our understanding of the values and setting of the Studland Bay Wreck. These projects are outlined in section 6.2 below.

6.2. Proposed Projects in relation to the Studland Bay Wreck

- 6.2.1. A formal staged programme of archive assessment should be commissioned resulting in the digital access to the site. (Policies: 1, 2, 3, 4, 6, & 7)
- 6.2.2. Between 1996 and 2015 the Poole Bay Archaeological group have conducted bi-annual monitoring of the site, recording the sediment values against a series of rods across the site. In order to continue this work these rods would need to be replaced allowing the monitor any localised variations across the site. PHC have also agreed to conduct detailed bathymetric surveys two times a year which will show any major changes across the protected area as well as fund the annual inspection of the site by BU. (policies: 5)
- 6.2.3. The paper records from the site archive are currently held by BU with the finds held by Poole Museum, these documents should be collated and made ready to become publicly accessible via web based initiatives. This data could be used to create an interactive 'digital trail' of the wreck (Policies: 1, 2, 3, 4, & 7).
- 6.2.4. A study of historic candidates with particular attention to the *Santa Maria de Luce* should be conducted. (policies: 2, 6, & 7)
- 6.2.5. The *in situ* protection placed across the site in the early 1990s should be reassessed, this would involve a degree of intrusive investigation to the site removing a section of the *in situ* protection and assessing the condition of the timbers against the reported timber condition in the site archive, to see if there has been any active erosion on the site. Once this assessment has been completed the *in situ* protection should be renewed. The scaffolding left on the site in the 1990s should be cleared along with any other modern intrusions and debris which may endanger the site and its users as part of this work. (policies: 9) There is currently an ongoing three year non-intrusive study testing the validity of the burial

conditions on the site, with a series of wooden block left exposed and a series buried, the block went down in April 2017 and the first set are due to be recovered in April 2018.

- 6.2.6. The protected wreck buoy marking the site is obsolete due to modern navigation, it may be possible to recover the buoy repurposing the sinker as a mooring block and permanent datum for further work.
- 6.2.7. The designated area should also move to exclude the artificial reef removing the need to manage access to the unrelated structure.

7. Implementation

7.1. Consultation

- 7.1.1. This document will be internally reviewed by Historic England.
- 7.1.2. The Conservation and Management Plan for the Studland Bay Wreck shall be circulated for a four-week stakeholder consultation to refine how the values and features of the Studland Bay Wreck can be conserved, maintained and enhanced. Responses to the consultation will be considered and the Plan revised as appropriate.

7.2. Adoption of Policies

- 7.2.1. Following consultation, the Plan was adopted.
- 7.2.2. A programme that identifies a realistic timescale for implementing the Plan, taking into account those areas which need immediate action, those which can be implemented in the medium or long term, and those which are ongoing will be devised.
- 7.2.3. Responsibilities for management of the site lies with Historic England (led by the Designation Department), all stakeholder will work toward implantation of this plan. In addition, provision will be made for periodic review and updating the Plan.

7.3. Authorship and Consultation

- 7.3.1. This Conservation Statement & Management Plan for the Studland Bay Wreck has been prepared by:

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- 7.3.2. The following individuals and organisations have been invited to comment on this draft plan:
- Heritage Organisations

- Dorset County Archaeologist
- LUNAR Society
- Poole Bay Archaeological Research Group
- Poole Museum
- The Shipwreck Project (Weymouth)
- Port Authorities
 - Poole Harbour Commissioners
- Recreational Diving Organisations
- Environmental Bodies
 - IFCA
 - Dorset Wildlife Trust
- Other Bodies
 - Crown Estates
 - Natural England

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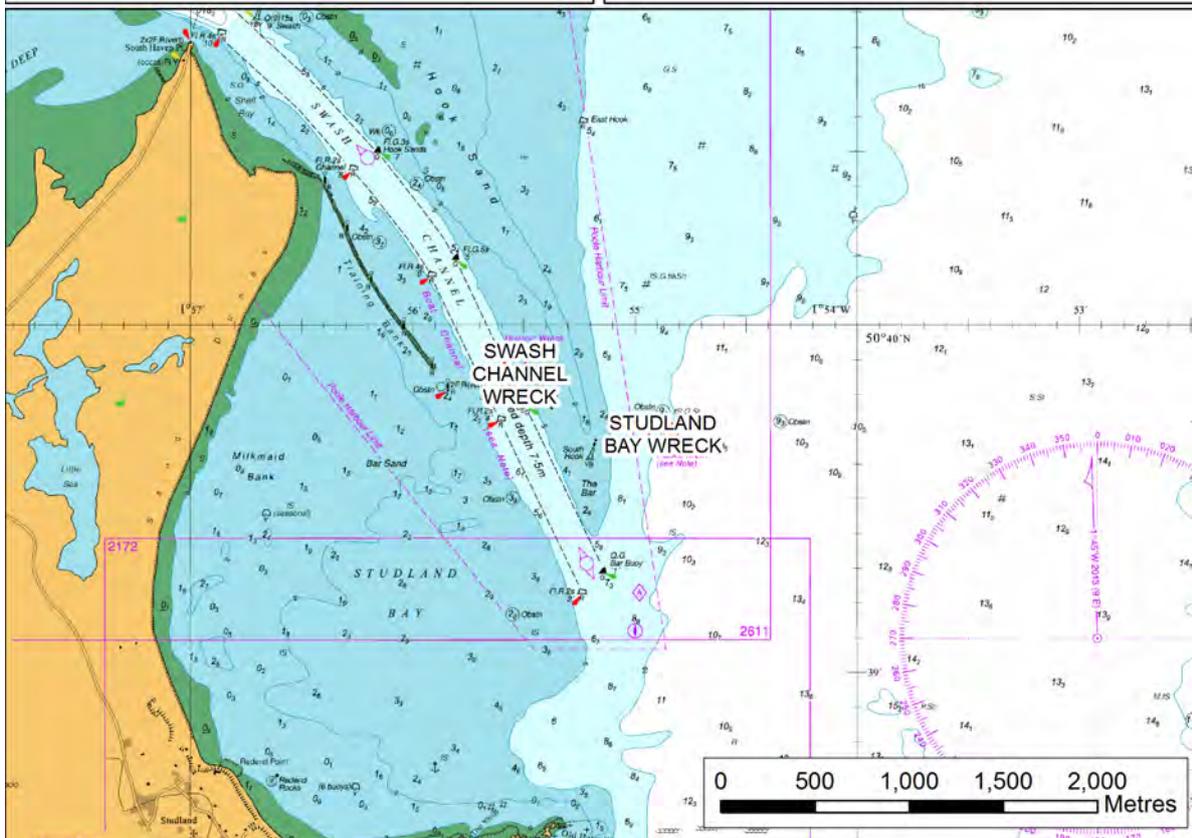
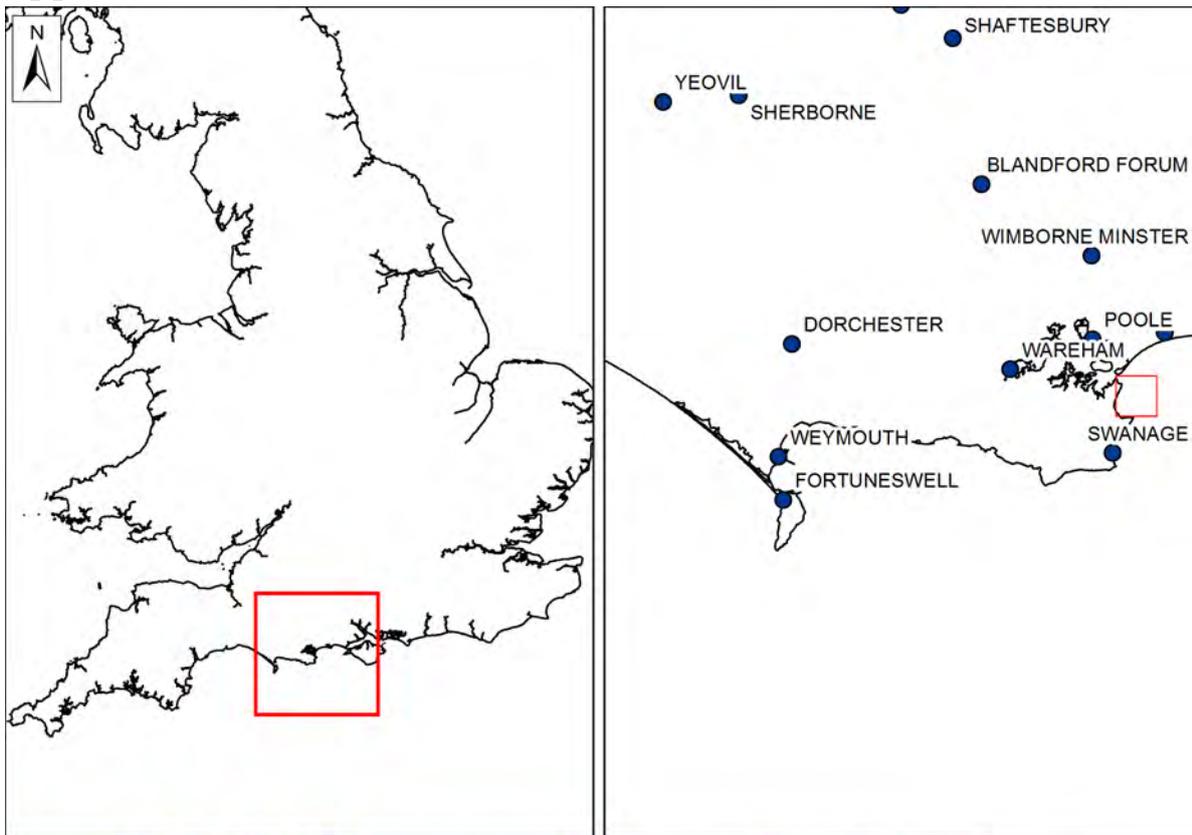
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Appendix One: Site Location



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Appendix Two: Site Plan

