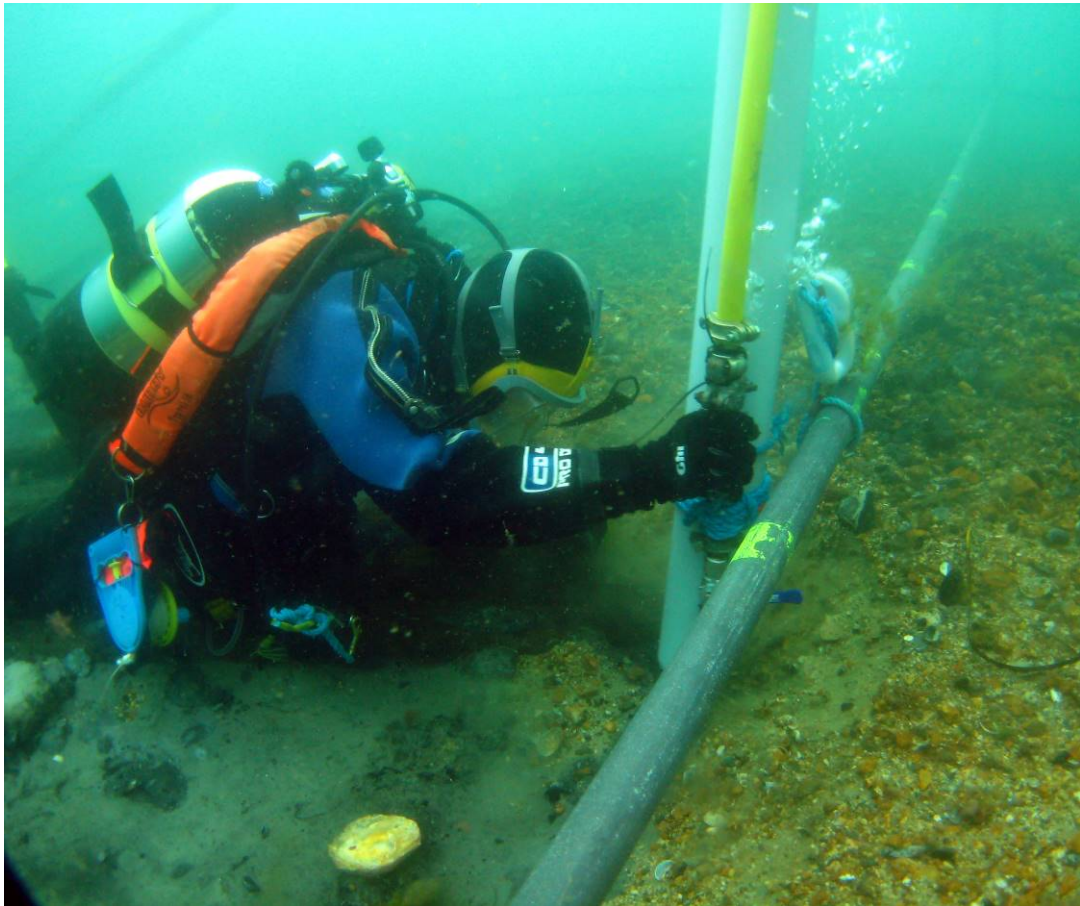


# Swash Channel Wreck Conservation Statement & Management Plan.

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Divers excavating the Swash Channel Wreck in 2010

**Prepared for Historic England  
January 2018**

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## Executive Summary

The Swash Channel Wreck was a large, possibly Dutch, armed merchantman involved in the global trade between Europe and the tropics, which wrecked on Hook Sand in the approaches to Poole Harbour in the 17<sup>th</sup> century c.1630. The find assemblage parallels that of several Dutch East Indiamen; however there are no records of a VOC wrecking in the location of the Swash suggesting that the vessel was either a ship belonging to the West India Company or an interloper. The most likely historical candidate is the *Fame of Horne* which wrecked on the Hook in 1631.

The presence of large timbers was noted in the area in 1990 when a dredger brought up a small 1pdr cast iron gun and several timbers adjacent to no.3 buoy in the Swash Channel; however the gun appears to be of a later date than the Swash Channel Wreck. Several timbers which cross match with the Swash timbers have also been found washed up on Studland Beach. In 2004 during an archaeological survey in preparation for the deepening of the Swash Channel, Wessex Archaeology identified an anomaly and undertook an undesignated wreck assessment recording a zone of structure some 20m in length with further remains known to exist in the area, and noted that the site may be eroding from the seabed. Bournemouth University (BU) took over the management and monitoring of the site for PHC in 2005, noting that it was rapidly degrading and eroding out of the seabed. A rescue excavation was conducted by BU in 2010, excavating and photographing the first 18m from the bow and the final 12m of the stern. The bowcastle, the first 6m of the bow, and the rudder were dismantled underwater and raised between 2010 and 2013 with the raised timbers being digitally recorded at the Newport Ship Centre.

The wreck was designated under the Protection of the Wrecks Act (1973) as the Swash Channel Wreck in 2004. The current designation is a rectangular area running parallel to the shipping channel at the following positions:

Corner	Latitude	Longitude
Northwest	50°39.8971'N	001°55.5905'W
Northeast	50°39.9201'N	001°55.5137'W
Southwest	50°39.7994'N	001°55.4414'W

Southeast	50°39.8225'N	001°55.4414'W
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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 Swash Channel Wreck 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 Swash Channel Wreck can be conserved, maintained and enhanced.

The following management policies have therefore been developed:

*Management Policy 1: We will seek to develop appropriate visitor access to the monument, principally in the form of virtual access, as a mechanism to develop the value of the site. Visitor access needs to take into account the commercial environment in which the site lies.*

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

*Management Policy 3: We will encourage the reporting and recording of any timbers found on the beaches of Studland.*

*Management Policy 4: We will seek to develop a system to allow the accessibility of related material through web-based initiatives and support appropriate links to develop effective public understanding.*

*Management Policy 5: Mechanisms will be identified and developed to address the shared ownership of the site.*

*Management Policy 6: 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 7: Key gaps in understanding the significance of the component parts 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.*

*Management Policy 8: We will encourage the investigation and survey of the areas surrounding the wreck to establish the potential for more sections of the ship to be discovered.*

*Management Policy 9: We will continue to monitor the site and renew the in situ protection as appropriate.*

*Management Policy 10: We will continue the programme of environmental monitoring of the site through diver inspections and high resolution bathymetry.*

*Management Policy 11: 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 Swash Channel Wreck, an archaeological site designated under the Protection of the Wrecks Act 1973, lying within Hook Sand at the entrance of Poole Harbour, Dorset. The site was found during routine archaeological work in association with the channel deepening of the Swash Channel in 2004 and after an archaeological assessment it was designated on the 10 December 2004.
- 1.2.2. The Swash Channel Wreck is attributed the National Monuments Record (NMR) number 1408546 and the List Entry Number 1000082.
- 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 is clear and transparent in its purpose and sustainable in its application. 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.
- 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 Swash Channel 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 Swash Channel 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 Swash Channel Wreck
- Assessing the significance of the Swash Channel Wreck
- Identifying where the significance of the Swash Channel Wreck is vulnerable
- Identifying policies for conserving the significance of Swash Channel Wreck
- Realising the public value of the conservation of the Swash Channel Wreck
- Identifying Management Policies.

### **1.4. Scope and Liaison**

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 Swash Channel 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) and the *Stirling Castle* (Dunkley, 2008).

### **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 Swash Channel Wreck

### 2.1. Historical Development of the Designated Site

- 2.1.1. The Swash Channel Wreck is the remains of a large, high status Northwest European armed merchant ship wrecked in the approaches to Poole Harbour in the early 17<sup>th</sup> century, c.1630. The exact character of the originating ship has yet to be established, but evidence so far suggests that it was a Dutch built armed trading ship involved in deep-sea international trade, almost certainly to the tropics.
- 2.1.2. The vessel was built in a Dutch style from timbers from the Dutch/German Border felled in the spring of 1628. The small finds assemblage and building style closely paralleling ships belonging to the Dutch East India Company (VOC) such as the *Batavia* off the west coast of Australia (van Duivenvoorde, 2008). However the records of the VOC which are extensive make no mention of a vessel of this type wrecking outside of Poole within the time period provided from the dendrochronology, suggesting that the vessel is an interloper (illegally involved with trade against the states monopolies) or possibly part of the Dutch West India fleet (WIC) whose records do not survive.
- 2.1.3. A study of potential candidate for the vessel was produced by Ian Friel (2014) which revealed a likely candidate in the Poole High Court of Admiralty records from 1631 have revealed the most likely candidate the *Fame of Hoorn*. This vessel was on route from Hoorn to the West Indies and was moored outside of Poole, most likely Studland Bay a well-established safe anchorage, when its anchor came home in strong winds running the vessel up onto a sandbank (Hook Sand) where it was looted by the locals. The crew of 45 survived the ordeal and the owners, two individuals Garretson and Vene, petitioned the courts to arrest the looters and restore the goods.
- 2.1.4. The Court records also mention an issue with the salvage of this vessel in the June of 1631 where they commission Mr Newland and his Flemish diver to buoy and clear the wreck from the main channel. This was followed up by an entry in 1632 threatening to levy a £200 fine against Mr Newland if the wreck was not cleared by July of that year. The wreck was not mentioned in the Court records after this suggesting that the work was completed or the wreck had completely buried. No other record in the Dutch or English archive have been found relating to the wreck have been found to date (2016).
- 2.1.5. Timbers and a small iron gun were dredged from the area of the in 1990 (Papworth, 1995) suggesting the presence of a wreck, however, the gun has now been proven to be of a much later date than the wreck. The site was re-discovered by Wessex Archaeology in 2004 as part of an Environmental Impact Statement ahead of a capital-dredging project commissioned by PHC (Wessex Archaeology, 2004). During 2004/05 Wessex Archaeology undertook an undesigned wreck assessment recording a zone of structure some 20m in length with further remains known to exist in the area and that the site may be eroding from the seabed. (Wessex Archaeology, 2006).



- 2.1.6. Following this, Historic England and PHC approached David Parham at BU to monitor the site. This was to be undertaken by university staff with specialist skills and the incorporating work on the site into a taught unit on BU's BSc Marine Archaeology programme to increase capacity within the sector. This work continued from May 2006 until the summer of 2009 during which time it became evident that the site was naturally eroding and subject to considerable mechanical and biological degradation which further characterised the site. As a result of the conclusions reached from this work, Historic England (then as English Heritage) commissioned a rescue excavation of the site.
- 2.1.7. From 2010 BU led a team of maritime archaeologists in the full scale systematic excavation of the first 18m of the wreck deemed most at risk using 6x6m scaffold grid to guide the work and create a complete photographic record of the site in the form of a photomosaic. This work was completed along with the added work of the stern in 2010. Running simultaneously with this excavation was the dismantling of the bowcastle structure which was broken down into its component parts and raised in the spring of 2011.
- 2.1.8. The 2011 season on the site saw the dismantling and recording of the first six metres of the bow which was actively eroding from the seabed. This wreck was stripped back layer by layer and recorded using a photomosaic which was later reprocessed in to a photogrammetric model of each layer, this work was slowed by the concretions formed between the cannon and the chainplates present in the bow.
- 2.1.9. These raised timbers were taken to the Newport Ship Centre and digitally recorded and reconstructed between 2013 and 2016.
- 2.1.10. The rudder was excavated in 2012 and raised in 2013 before being taken to the York Archaeological Trust for Conservation.
- 2.1.11. The finds raised from the site were assessed by various experts throughout the projects life and will be detailed in the forthcoming publication.
- 2.1.12. The known information of the Swash Channel 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

<b>Build</b>	The Swash Channel Wreck is of high importance as a vessel involved in the European expansion and internationalisation of the 17 <sup>th</sup> century.
<b>Use</b>	The vessel is constructed in a Dutch style from timbers sourced from the Dutch/German border. It is thought that the ship would have been involved with international trade most likely with the New World. The late 16th and early 17th centuries saw the beginning of what is known as proto or early modern globalisation. The period is marked by the rise of European maritime empires financed by private enterprise which in turn formed the beginnings of what are now recognised as modern economics.

<b>Loss</b>	<p>The <i>Fame</i> was on route to the West Indies and it was not known if she was carrying cargo and no court records make reference to this suggesting that she may have been travelling in ballast.</p> <p>The ship foundered on Hook Sand a well-known shipping hazard which covers the eastern approach to Poole Harbour and Studland Bay, a historical safe anchorage, given the wrecks location on the western side of the hook and its bow positioned towards the bay, it is likely that the vessel would have been moored within Studland Bay and the vessel dragged its anchors before grounding on the sandbank and breaking its back. The lack of cargo and guns on the site suggests that it was either travelling in ballast or was salvaged at the time of wrecking.</p>
<b>Survival</b>	<p>Given the depth of water the wreck lies in and the size of the wreck it is likely that the vessel would have been exposed and above water for a time after wrecking.</p> <p>This is corroborated in the historical account of the loss of the <i>Fame</i> which was anchored outside of Poole when it came home in a storm running onto a sandbank and breaking apart, where she was looted by the local population. Divers and salvage experts were then commissioned to clear the wreck from the main channel.</p> <p>The Swash Channel Wreck lies within Hook Sand at a depth of 7-8m. the remains are extensive consisting primarily of the remains of a heavily framed carvel constructed wooden ship of c.40m in length with associated debris spreading up to 30m to the northwest of the site. The articulated structure consists of almost the entire port side of the vessel from an area in the bow between the turn of the bilge to the top rail of the bowcastle, and in the stern from the top of the deadwood to the top rail of the sterncastle. This structure is split approximately 60% of the way along its length from the bow forming two distinct elements that lie on slightly different orientations.</p>
<b>Investigation</b>	<p>These remains were buried under sandbags and geotextiles between 2010 and 2014 and are annually monitored.</p> <p>During dredging work in 1990 some timbers and a gun were brought up by a dredger in the region of the wreck confirming the presence of underwater cultural heritage in the area; however the gun recovered appears to be of a much later date than the Swash. The site was officially found during archaeological investigations as part of an EIA by Wessex Archaeology in 2004, who conducted the site assessment and initiated the wrecks designation (Wessex Archaeology, 2004).</p> <p>Bournemouth University became PHC's archaeological advisors in 2005 using the site as a student training platform within the BSc Maritime Archaeology course which ran between 2004-2012.</p> <p>In 2010 BU began a large rescue excavation starting in the bow which was most at risk removing the sediment and recording the structure using photography to create a photomosaic of the site, which in 2016 was reprocessed into a photogrammetric model. After excavation the ship structure was covered with geotextiles and sandbags to protect the remaining structure.</p>

The Bowcastle was dismantled at this time and brought up in 2011 and stored at the Newport Ship Trust. During the 2011 dive season the bow area of the vessel was dismantled with photographic recording occurring every time a layer was removed, these timbers were raised in the spring of 2012. The 2012-3 season saw the removal and raising of the carved rudder and one of the large finbanker cannon which was transported to York Archaeological Trust.

Repairs to the *in situ* protection took place between 2014-2015.

Between 2013-2016 extensive post-excavation work took place on the raised timber in Newport using FARO-arms to record the timbers in three dimensions and the assessment of the finds occurred for the final publication due in 2017.

## **2.2. Description of Surviving Features**

- 2.2.1. The wreck lies in the relatively flat featureless sandbank known as Hook Sand which runs along the eastern edge of the Swash Channel at the approaches to Poole Harbour. The remains were extensive and were exposed up to 1m above the seabed.
- 2.2.2. The site is formed by a spread of archaeological material covering approximately 40m x 50m. This consists primarily of the remains of a heavily framed carvel constructed wooden ship of c.40m with associated debris spreading up to 30m to the northwest of the site. The articulated structure consists of almost the entire port side of the vessel from an area in the bow between the turn of the bilge to the top rail of the bowcastle, and in the stern from the top of the deadwood to the top rail of the sterncastle. This structure is split approximately 60% of the way along its length from the bow forming two distinct elements that lie on slightly different orientations (Appendix Two: Site Plans).
- 2.2.3. Although the vessel was pierced to take at least 30 guns only four large 12pdr finbanker cannon were present on the site, two in the bow associated with the first and third gunports and were still lashed to the hull, one of these guns was raised in 2013. The other two 12pdr cannon were located off the articulated structure one slightly off the stern and the other c.30m to the North East of the main site. Two smaller 6pdr guns are located in the stern of the vessel.
- 2.2.4. The site was subject to *in situ* protection after excavation and is currently under a layer of sandbags and geotextiles which has gradually built up a covering on seabed sediment. Site inspections in 2016 revealed very little structure exposed.

## **2.3. Ownership, Management and Current Use**

- 2.3.1. As an unidentified wreck the ownership of the vessel cannot be established. Evidence suggests the vessel may be a Dutch Indiaman and may be property of the Dutch government however there are no recorded losses of VOC ships within the time period given by the dendrochronology and within the region of Poole.

- 2.3.2. The *Fame of Hoorn* was owned by Hercules Garretson, Cornelius Vene; and Company who petitioned the Court to have the looted property to be returned to them and the rightful owners. There are no further mentions of the wreck in the Poole Court records and the Dutch records for the *Fame of Hoorn* have not revealed any candidates suggesting that the ship was an interloper illegally taking part in the monopolised trade to the West Indies.
- 2.3.3. In 2010 Historic England (as English Heritage) commissioned BU to undertake a large scale excavation project with extensive recovery of the ship structure, along with *in situ* protection of the remaining hull structure, the diving work was completed in 2014 and the results of the post-excavation analysis are published in 2018.
- 2.3.4. Physical access to the site is restricted to divers under the supervision of the Site Licensee(s) under the PWA and permissions from PHC port authority to dive within the port boundaries. Since 2005 monitoring has been conducted by BU with geophysics taken by PHC as part of the routine monitoring of the shipping channels.
- 2.3.5. The Licence has been held by a member of PHC staff since designation with Dave Parham acting as the Site Archaeologist and co-licensee. The current licensee of the site is Steve Pearce, Poole Harbour Commissioners hydrographer under the archaeological advisement of Dave Parham, Bournemouth University.
- 2.3.6. The finds recovered from the site have been accessioned by Poole Museum after conservation and research. Poole Museum held a temporary exhibit on the wreck between 2014-5 displaying a section of the artefacts alongside replica finds. The top half of the rudder along with the triton carving is on display at Poole Museum.

## 2.4. Gaps in Existing Knowledge

- 2.4.1. During the creation of this document the post-excavation phase of the project was in its final phase and due to be published in 2018.
- 2.4.2. The most likely historical candidate, the *Fame of Hoorn*, is only mentioned in the Poole Admiralty Court Records dealing with the initial wrecking and a short piece about the salvage. Searches of Dutch and English records have so far proved fruitless suggesting that the ship was illegally involved in the trade with the West Indies. The details of her salvage and cargo are yet to be established as well as the exact date and place of building.
- 2.4.3. The lack of the lower parts of the ship and the keel creates a significant gap in the knowledge of the wreck; the only hull curvature surviving is from turn of the bilge up to the castles not allowing us to create an accurate analysis of the hulls performance in the water and the only evidence for masts comes from the chainplates. The contemporary Dutch built wrecks which have been excavated from the period all show a construction technique where the lower hull was double planked, which we cannot confirm on the Swash. The identification of the Dutch regional style of building relies on the presence of small wooden plugs or cleats in the lower frames without these we cannot say fully identify the style of building technique. One floor timber was located on the site within the middle unexcavated section; this was photographed but not recorded.

- 2.4.4. The excavation in 2010 concentrated on the first 18m of structure, recovering the small finds and making a record of the hulls inner layer through photography. Not all the finds could be recovered due to entrapment within concretions. The last 12m of the hull was rapidly excavated with airlifts but was not deemed at major risk so was reburied, it is likely that more carvings survive beneath the hull structure similar to those seen in the bowcastle.
- 2.4.5. The centre 12m section of the wreck was not excavated due to time and budget constraints, this area would contain the apparent break allowing us to confirm the wrecking process. Artefacts recovered from this area included a selection of bricks and cooking implements such as cauldron fragments which suggest a second galley in this area in line with warships however this could not be confirmed by excavation. Several barrels thought to contain provisions were also located in this area. This area would also contain the evidence for the mainmast in the form of the chainplates.
- 2.4.6. Several of the timbers excavated from the wreck were placed on a lifting frame for recovery, due to severe weather and possible impacts from fishing the large steel frames had moved and two large 1m<sup>3</sup> Intermediate Bulk Containers disappeared from the site along with large amounts of the timbers.
- 2.4.7. Several timbers have washed up on Studland Beach including a large frame and floor timber which cross match with the Swash assemblage; it has been suggested by Nayling (2010) that these timbers may be coming from an as yet undiscovered section of the Swash Channel Wreck.

### **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)
- 3.1.2. 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).
- 3.1.3. 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.

3.1.4. 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 Swash Channel Wrecks has an important place in maritime history as an large armed merchantman from the Dutch Golden Age which saw the beginning of what is known as proto or early modern globalisation.

3.2.2. The period is marked by the rise of European maritime empires financed by private enterprise which in turn formed the beginnings of what are now recognised as modern economics. This period saw the exchange of goods, cultures, ideas and peoples between northwest Europe, the Indies and North America, along with less desirable elements such as communicable diseases. This rise of European economic empires, which in the 18<sup>th</sup> and 19<sup>th</sup> centuries became political empires, formed the foundation for the integration of economies, societies and cultures that defines the modern world (Hopkins, 2002).

3.2.3. This cultural interchange was wholly reliant upon the development of specialist merchant shipping that was capable not only of making successful intercontinental voyages but also capable of carrying sufficient cargo to make the voyage economically viable and sufficient armament to defend itself.

3.2.4. Several early 17<sup>th</sup> century vessels of a similar construction have been found and excavated worldwide including the *Angra C*, *Nassau (1606)*, *Mauritius (1609)* and *Vergulde Draak (1656)*, but as far as can be established only two such vessels from the early 17<sup>th</sup> century, the *Batavia (1629)* and the 'B&W2' wreck (c.1620), have been raised and conserved in a way that permits detailed study. This is of great significance as there are no construction plans, lines drawings, or building records for any such vessels of this period (van Duivenvoorde, 2008 ). In addition to these wrecks the *Vasa*, although not an international trader has many parallels with the Swash (Cederlund & Hocker, 2006).

3.2.5. The nature of the activity in which the Swash Channel Wreck was involved was relatively new and what limited evidence we have suggests that the solution to the nature of this work was still experimental. This type of ship is poorly understood, being represented by only a hand full of known shipwreck sites, only three of which have had surviving elements of hull structure and only two of which have been subject to scientific investigation.

3.2.6. The following table seeks to summarise these values of the Swash Channel 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 Swash to yield primary information about past human activity. Excavations revealed very little in the form of small finds however from the small selection a significant amount of primary
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information on human activity can be gained. The recording and study of the hull structure has also provided great potential about shipbuilding in the Dutch Golden Age. It is likely that more artefacts survive on the site in the unexcavated section, trapped in the concretion and beneath the hull. The site provides evidence of the upper structures of a ship including the castles which do not usually survive on wrecks

The rudder is also a rare survival of shipwrecks usually floating off in the wrecking process, the rudder from the Swash ended up midships on the wreck.

Historical	Relating to the ways in which the Swash can provide direct links to past people, events and aspects of life; the Swash Channel Wreck has one likely candidate the <i>Fame of Hoorn</i> a Dutch vessel most likely illegally involved with the trading markets in the West Indies. We only have limited knowledge of the history of this ship and its salvage and archive searches are still on going.
Aesthetic	Relating to the ways in which people respond to the Swash through sensory and intellectual experience; the wrecks strength lays in her being a 17 <sup>th</sup> century ship from the Dutch Golden Age. The baroque carving recovered from the site are visually appealing as with many of the other artefacts which have aesthetic, historical and evidential value. The site has also received significant amounts of media and public interest locally, nationally and internationally.
Communal	Relating to the meanings of the Swash for the people who identify with it, and whose collective memory it holds; from the original BU project team who have a long association and interest in the wreck.
Instrumental	Economic, educational, recreational and other benefits which exist as a consequence of the cultural or natural heritage values of the Swash may be identified in her value as a museum exhibit for Poole Museum.

### 3.3. Gaps in Understanding Significance

- 3.3.1. The assessment of significance of the site as a whole has not been acutely hindered by any of the gaps in our 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. The exact identity of the ship is no known however there is strong evidence that the vessel is the *Fame of Hoorn*. The full history of the *Fame of Hoorn* is yet to be established, searches in the Dutch and English records have not revealed any more information on the vessel.
- 3.3.3. The centre section of the wreck has yet to be excavated to establish where the break in the vessel is and if there is a presence of a 2<sup>nd</sup> galley.
- 3.3.4. It is unknown if any structure lies buried to the west of the site which may have the lower parts of the ship or if there is an undiscovered section of the wreck shedding timbers, one of

the cannons from the Swash [SCW002] is located approximately 30m Northwest of the main site alongside a large concretion where the majority of the lead shot was recovered limited excavation in this area may reveal further artefacts.

### 3.4. Statutory and Other Designations

- 3.4.1. Statutory Instrument 2004/3243 provides affords protection to a rectangular area of seabed adjacent to the Swash Channel on the approaches to Poole Harbour at the following coordinates:

Corner	Latitude	Longitude
Northwest	50°39.8971'N	001°55.5905'W
Northeast	50°39.9201'N	001°55.5137'W
Southwest	50°39.7994'N	001°55.4414'W
Southeast	50°39.8225'N	001°55.4414'W

- 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. The site lies within the Port Limits of the Port of Poole, any seabed operations within this region require a permit from the port authority.
- 3.4.4. 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 Swash Channel 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 lies along the eastern edge of the Swash Channel on Hook Sand a relatively flat featureless sandbank known for its many wrecks. Sediment monitoring from 2005-2009 showed that the sediment levels were falling by a maximum of 250mm exposing large amounts of the archaeology to the water column and therefore erosion. The rescue excavations between 2010 and 2014 removed the areas most at risk and reburied the remaining structure using sandbags and geotextiles. As of site inspections in 2016, only the occasional disarticulated timber was exposed, with the site becoming unrecognisable from the previous years.

4.2.2. It is the buried timbers are preserved *in situ* however there have been no long term studies into the effectiveness of *in situ* protection on wreck sites.

4.2.3. A relatively small assemblage of find have been recovered from the site, over 700 artefacts have been recovered from the site including 100 small finds many of these finds are organic suggesting that there is excellent survival of material buried in the sediments.

4.2.4. As the site has now been reburied and is adjacent to a main shipping channel it is unsuitable for diving without the appropriate mechanisms in place with PHC, if any diving was to occur PHC must be given prior notice and a licence applied for.

## **4.3. Conservations and Presentation Philosophy**

4.3.1. The artefacts recovered from the site are property of Poole Museum who will take full ownership of the finds after the conservation and research has been completed. Poole museum had a temporary exhibit on the wreck as part of a HLF project between 2014 and 2015 and the top half of the rudder along with the triton carving have been on display since February 2017.

4.3.2. Poole Museum are currently undergoing a HLF bid to create larger maritime archaeology display within the next few years, incorporating both the Studland and Swash wrecks (pers. comm. Sue Beckett, Curator at Poole Museum).

4.3.3. A detailed photomosaic of the whole site was created in 2010 which was reprocessed into a photogrammetry model in 2016. This had formed the basis of the site plans of the wreck.

- 4.3.4. PHC have conducted several multibeam surveys across the wreck since 2011 and will continue to conduct bathymetric surveys of the site on a bi-annual basis as well as before and after any dredging works likely to affect the wreck (PHC, 2016).
- 4.3.5. There is currently no interpretive signage associated with the wreck. There is some limited interpretation online currently available on the Historic England and Bournemouth University websites.

#### **4.4. Visitor and other Occupancy Requirements**

- 4.4.1. There are no plans to develop a visitor scheme on the site, with its location close to a main shipping channel and the wrecks subsequent reburial make the site unsuitable for a dive trail. The site will be subject to bi-annual inspections by the licensee team will require the placement of two permanent datums at either end of the site to aid in the accurate monitoring and relocation of the site when covered by sediments.
- 4.4.2. The site licence has been held by a member of PHC's staff since the wrecks designation. The current licensee is Steve Pearce with Dave Parham acting as the nominated archaeologist.
- 4.4.3. Given the lack of physical access to the site, it is recommended that the online presence is enhanced with particular attention paid to the mass of digital data held by BU.
- 4.4.4. 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 Poole Bay should be discussed with the NT.

#### **4.5. The Existence (or Lack) of Appropriate Uses**

- 4.5.1. Regular, consistent and reliable information relating to the condition of the Swash will be necessary to monitor the existence (or lack) of appropriate uses of the site.
- 4.5.2. 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.
- 4.5.3. 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.

- 4.5.4. No unlicensed activity has been reported on the wreck however damage to the sediment rods, the scaffold frames set up over the site during the excavation and the lifting frames suggest that fishing activity around and above the wreck does occur. Any un-authorised activity over the site should be reported to the Harbour Commissioners.
- 4.5.5. In 2011 timbers were stacked and secured on lifting frames and within 1m<sup>3</sup> Intermediate Bulk Containers (IBC) in which they had sat for the whole dive season. Prior to lifting the frames were inspected by a representative of Historic England and deemed them secure and ready for lifting. However severe weather forced the lift to be delayed, on return to the site the large lifting frames, had physically moved and the two IBCs were missing along with much of the timber, it is unknown whether or not this was due to fishing impacts or weather, one fishing vessel did recover a marked timber in a trawl reportedly from over a mile away from the wreck.

#### **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 Swash and that interaction with the material relates to both the aesthetic and historical value. This is further increased from the displays about the wreck housed in Poole Museum and the significant media coverage on the wreck throughout the project.
- 4.6.2. The site archive is held by BU who will deposit it in Poole Museum at the end of the research phase on the wreck in 2018.
- 4.6.3. As part of their dredging recording protocols PHC (PHC, 2016) have agreed to a 6 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 could be increased by involving students and volunteers with an interest in maritime archaeology in the monitoring of the site.
- 4.6.4. The site is currently buried under a layer of sandbags and geotextile with additional sediment due to be placed over the wreck as part of the routine maintenance of the Swash Channel. There are no plans for any more intrusive investigation of the site.
- 4.6.5. The publication of the study of the wreck to date is due to be completed in 2018.
- 4.6.6. 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 Swash Channel Wreck a major publication on the site and the work conducted by BU is currently in its final phase and is due for publication in 2018. This publication along with interpretive web material will increase the public understanding of the site.
- 4.7.3. During excavation time and funding constraints meant that the central section of the articulated remains was not excavated leading to a lack of knowledge of what was located in this area and the break in the vessel
- 4.7.4. There is a lack of information on the historical candidate, the *Fame of Hoorn*, which is only mentioned in the Poole Admiralty Court Records dealing with the initial wrecking and a short piece about the salvage. Searches of Dutch and English records have so far proved fruitless suggesting that the ship was illegally involved in the trade with the West Indies. The details of her salvage and cargo are yet to be established as well as the exact date and place of building.
- 4.7.5. The lack of the lower parts of the ship and the keel creates a significant gap in the knowledge of the original vessel. The contemporary Dutch built wrecks which have been excavated from the period all show a construction technique where the lower hull was double planked, which we cannot confirm on the Swash.
- 4.7.6. Poole Museum has held one temporary exhibit on the site in 2014 and the top half of the rudder along with the triton carving have been on display since February 2017. The museum has is currently undergoing a bid to increase the displays on the maritime archaeology of the region.

## **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 Swash Channel 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 Swash Channel Wreck is a shared resource**

- 5.2.1. The Swash Channel 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. The Swash Channel Wreck is therefore a social asset as a resource for learning and enjoyment. It should be enjoyed without compromising the ability of future generations to do the same.
- 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 site also has issues with being adjacent to a maintained channel which need to be regularly dredged in order to keep the Port of Poole running efficiently, this increases the risk to the site and the likelihood of any disarticulated timbers drifting into the main channel and affecting navigation and or dredging operations. However it has a positive impact on the resources available to survey and protect the site with bi-annual bathymetry and sediment replenishment being made available.
- 5.2.5. Management Policy 1: We will seek to develop appropriate visitor access to the monument, principally in the form of virtual access, as a mechanism to develop the value of the site. Visitor access needs to take into account the commercial environment in which the site lies.
- 5.2.6. Management Policy 2: Through liaising with Poole Museum and other stakeholders we will seek to provide interpretive material for the marine historic environment at appropriate locations.
- 5.2.7. Management Policy 3: We will encourage the reporting and recording of any timbers found on the beaches of Studland.

### **5.3. Everyone should be able to participate in the sustaining the Swash Channel Wreck**

- 5.3.1. Local, regional, national and international stakeholders have the opportunity to contribute to the understanding and sustaining of the Swash Channel Wreck. Judgments about the values and decisions about the future of the Swash Channel 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 Swash Channel Wreck
- 5.3.3. 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.
- 5.3.4. 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.

- 5.3.5. Any local society or organisation wishing to host talks on the wreck is encouraged to contact the archaeological team.
- 5.3.6. 'Virtual access' to the site could be created from the photogrammetry in combination with an updated site archive and the latest survey data. This could include elements of the site archive to create a virtual trail allowing public access to the research and information gained from the excavation of the Swash.
- 5.3.7. Management Policy 4: We will seek to develop a system to allow the accessibility of related material through web-based initiatives and support appropriate links to develop effective public understanding.
- 5.3.8. Management Policy 5: Mechanisms will be identified and developed to address the shared ownership of the site.
- 5.3.9. Management Policy 6: 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 Swash Channel Wreck is vital**

- 5.4.1. The significance of the Swash Channel 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. In the case of the Swash Channel Wreck, the forthcoming publication will address many of the current gaps in significance and the site would need to be reassessed after this date.
- 5.4.5. Some key gaps in our understanding of the vessel could only be addressed via excavation of key part of the wreck site, which is not viable in the near future, survey work occurring on and around the site should be encouraged to establish if there is any unknown archaeological potential.
- 5.4.6. Management Policy 7: Key gaps in understanding the significance of the component parts 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.

5.4.7. Management Policy 8: We will encourage the investigation and survey of the areas surrounding the wreck to establish the potential for more sections of the ship to be discovered.

## **5.5. The Swash Channel Wreck should be managed to sustain their 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.

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. Management Policy 9: We will continue to monitor the site and renew the in situ protection as appropriate.

5.5.7. Management Policy 10: We will continue the programme of environmental monitoring of the site through diver inspections and high resolution bathymetry.

5.5.8. Management Policy 11: 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 4.7.1, Historic England is seeking to support projects that will increase our understanding of the values and setting of the Swash Channel Wreck. These projects are outlined in section 6.2 below.

### **6.2. Proposed Project in relation to the Swash Channel Wreck**

6.2.1. The final stage of the site analysis and conservation is currently underway and is due to be completed in 2018. (Policies: 1, 2, 4, 5, 7 & 11)

- 6.2.2. A project to create a virtual dive trail which includes access to the latest research and the site archive is currently in discussion with Historic England. (Policies: 1, 2, 4, 5 & 7)
- 6.2.3. As part of the annual report from 2016 onwards high resolution bathymetry will be taken across the site to visualise any areas of scour or accretions with appropriate responses acted upon by PHC and the licensee team, Diver inspections will also occur annually under this agreement with PHC. Any damage to the *in situ* protection on the site should be dealt with appropriately. It is envisioned that PHC will provide regular sediment replenishment as part of their maintenance dredging scheme. As part of this a biodiversity study of the wrecksite should occur using the site archive and previous work to establish the effects on *in situ* protection to the natural environment. (Policies: 1, 3, 5, 6, 7, 8, 9, 10 & 11)
- 6.2.4. A test excavation of the area around the cannon SCW2 should occur to establish if the lower part or starboard side of the ship is present off site. (Policies: 8)
- 6.2.5. Poole Museum are in the process of enhancing their display on the maritime archaeology of Poole, Bournemouth University will support this work. (Policies: 1, 2, 4, 5, & 11)

## **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 Swash Channel Wreck shall be circulated for a four-week stakeholder consultation to refine how the values and features of the Swash Channel 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 Swash Channel Wreck Site 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 Organizations
  - Dorset County Archaeologist
  - LUNAR Society
  - Poole Bay Archaeological Research Group
  - Poole Museum
- Port Authorities
  - Poole Harbour Commissioners
- Recreational Diving Organisations
- Environmental Groups
  - IFCA
  - Dorset Wildlife Trust
- Other Bodies
  - Crown Estates
  - Natural England

## 8. Bibliography

BHO, 1908. Henry VIII: February 1546, 1-10. In: J. Gairdner & R. Brodie, eds. *Letters and Papers, Foreign and Domestic, Henry VIII, Volume 21 Part 1, January-August 1546*. London: British History Online <http://www.british-history.ac.uk/letters-papers-hen8/vol21/no1/pp78-95>, pp. 78-95.

Cederlund, C. & Hocker, F., 2006. *Vasa I The Archaeology of a Swedish Warship of 1628*. Stockholm: Statens Maritime Museer.

DCMS, 2004. *Statutory Instrument 2004 No. 3243 Protection of Wrecks (Designation) (England) (No.3) Order 2004/3243*, s.l.: Department of Culture, Media & Sport.

Dunkley, M., 2008. *Sterling Castle, Goodwin Sands, off Kent. Conservation Statement and Management Plan*, s.l.: Historic England.

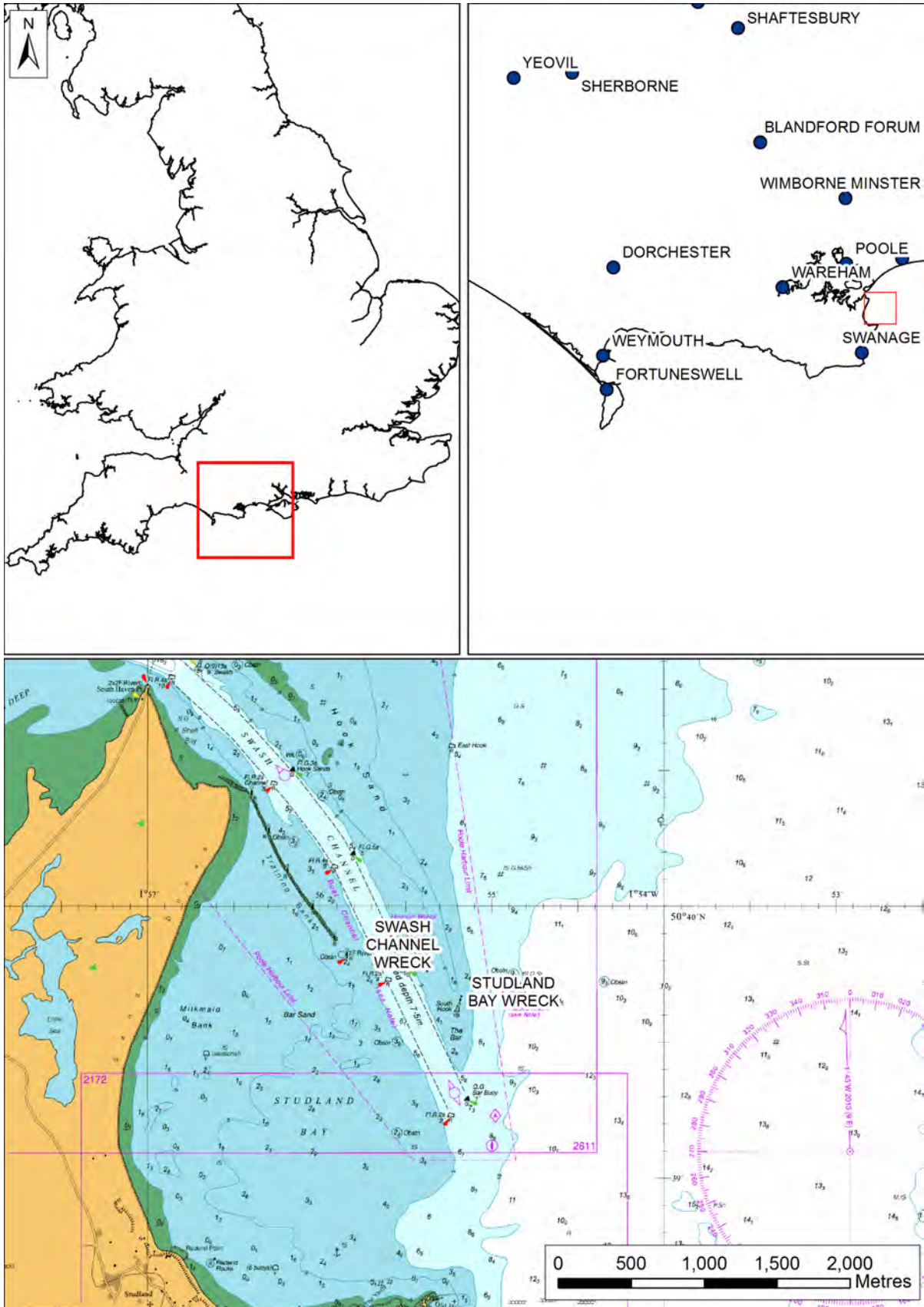
Dunkley, M., 2009. *Rooswijk, Goodwin Sands, off Kent. Conservation Statement and Management Plan*, s.l.: Historic England.

Friel, I., 2014. *The Mercy of the Sea - Identifying the Swash Channel Wreck*, Poole: Unpublished Report.

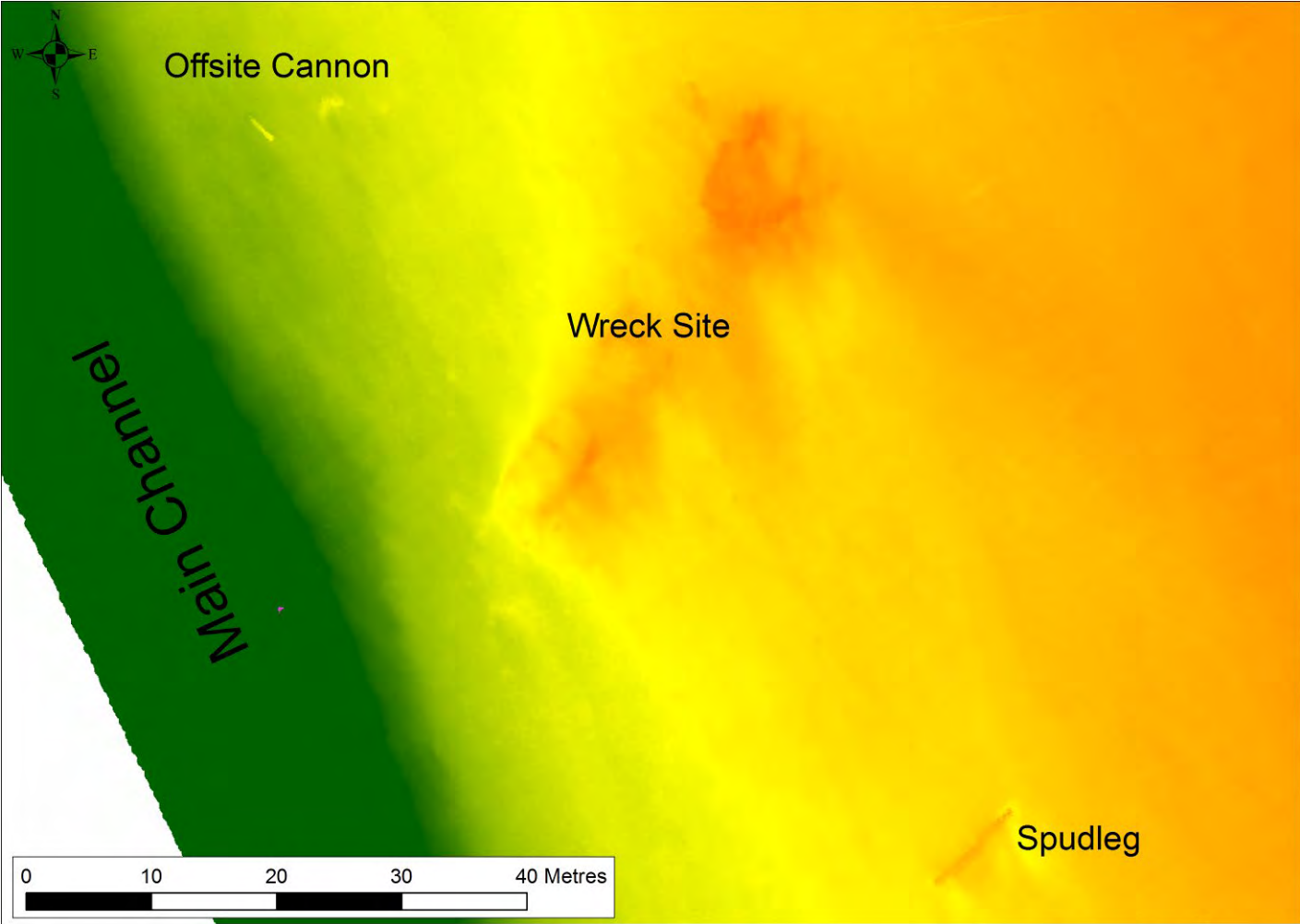
Green, J., 1989. *The loss of the Verenigde Oostindische Compagnie retourschip BATAVIA, Western Australia 1629*, Freemantle: Western Australia Maritime Museum.

- Historic England, 2008. *Conservation Principles, Policies, and Guidance, for the Sustainable Management of the Historic Environment*, s.l.: Historic England.
- Hopkins, A. G., 2002. *Globalization in World History*. London: Pimlico.
- Natural England, 2006. *Natural Environment and Rural Communities Act*, s.l.: HM Stationary Office.
- Nayling, N., 2010. *The Swash Channel Wreck, Dorset. Tree Ring Analysis of Ship Timbers*, London: Research Department Report Series no.106-2010.
- Papworth, M., 1995. *The National Trust Archaeological Survey; Studland and Corfe Castle Estate*, Swindon: The National Trust .
- Pascoe, D. & Cowen, C., 2016. *HMS Invincible Conservation Statement and Management Plan*, s.l.: Unpublished Report.
- PHC, 2016. *Poole Harbour Commissioners' Archaeological Method Statement and Protocol (for inclusion in Maintenance Dredge Protocol)*, Poole: PHC.
- Roberts, P. & Trow, S., 2002. *Taking to the Water: English Heritage's Initial Policy for the Management of Maritime Archaeology in England*, London: English Heritage.
- Roberts, P. & Trow, S., 2002. *Taking to the Water: English Heritage's Initial Policy for the Management of Maritime Archaeology in England*, London: English Heritage.
- van Duivenvoorde, W., 2008 . *The Batavia Shipwreck: An Archaeological Study of an Early Seventeenth-Century Dutch East Indiaman*. College Station: Texas A&M University.
- van Duivenvoorde, W., 2008. *The Batavia Shipwreck: An Archaeological Study of an Early Seventeenth-Century Dutch East Indiaman*. College Station: Texas A&M University.
- van Duivenvoorde, W., 2010. *The Armament of Australia's VOC Ships*, Fremantle: Western Australian Museum.
- Wessex Archaeology, 2004. *Poole Harbour Approach Channel Deepening and Beneficial Use Scheme*, Salisbury: s.n.
- Wessex Archaeology, 2006. *Swash Channel, Poole Harbour Approach, Dorset Designated Site Assessment Archaeological Report (Ref: 53111.03gg)*, Salisbury: Wessex Archaeology.

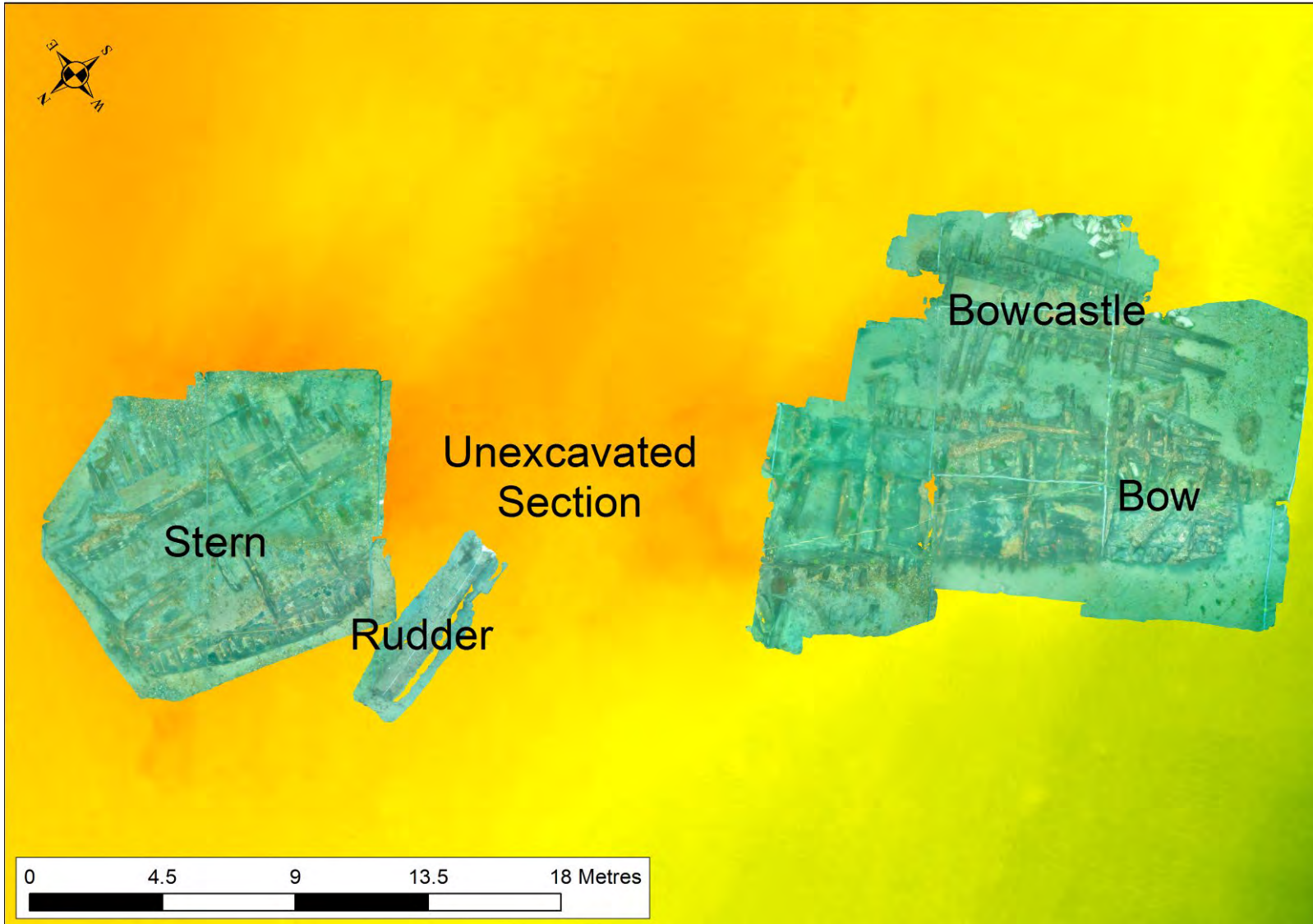
## Appendix One: Site Location



**Appendix Two: Site Plans**



Appendix two: 1 Bathymetry of the site and surrounding area



Appendix Two: 2 Photomosaic of the site