

Norman's Bay Designated Wreck Diver Trail

Project Design submitted under Historic Environment Enabling Programme,
English Heritage – Version 3_ 30th June 2010

NAS Project Number 2009_003

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Contents

1.	Project Name.....	2
2.	Summary.....	2
3.	Background.....	2
4.	Site.....	4
5.	Project Aims and Objectives.....	5
6.	Business Case.....	5
7.	Corporate Objective and SHAPE.....	6
8.	Project Scope.....	6
9.	Interfaces.....	6
10.	Communications.....	7
11.	Project Review.....	7
12.	Health and Safety.....	7
13.	Resources and Programming.....	7
	13.1. Team Structure.....	7
	13.2. Project Stages.....	8
	13.3. Project Products.....	8
	13.4. Project Tasks.....	8
14.	Product Descriptions.....	8
	14.1. Trail design.....	8
	14.2. Underwater guide.....	10
	14.3. Seabed stations.....	11
	14.4. Promotion of the trail	12
15.	Reports.....	13
16.	Project Tasks.....	13
17.	Risk Log.....	14
18.	Budget.....	15
19.	Bibliography.....	16
20.	Gantt chart.....	17

Written by Ashley Houghton and Mark Beattie-Edwards, Nautical Archaeology Society (NAS) Programme Director. Supporting information has been kindly provided by Alison Hamer, English Heritage; Kevin Camidge, Cornwall and Isle of Scilly Maritime Archaeological Society (CISMAS); Julie Satchell, the Hampshire and Wight Trust for Maritime Archaeology (HWTMA); David Johnston, HMS *Hazardous* Team and Newhaven Scuba centre. This project outline has drawn heavily on the Designated Site Assessment Reports produced by Wessex Archaeology in 2006 and 2007.

1. Project Name

Norman's Bay Designated Wreck Diver Trail

2. Summary description

The aim of the project is to develop and install a diver trail around the designated wreck site known as the Norman's Bay wreck (designated under the Protection of Wrecks Act (1973) on 14th June 2006). The dive trail will be created in 2010 and launched in spring 2011. Once launched it will be promoted and run by Newhaven Scuba Centre, who will be supported by the Nautical Archaeology Society. An underwater information booklet to guide divers around the site will be designed that will aid navigation and assist visitors in recognising features on the wreck. This booklet will also explain the background of the exposed remains and the problems and conflicts in identifying the wreck. Supporting web-pages will be created where descriptions and photographs from visiting divers can be posted. These web-pages will include an interactive trail using the material from the guide book and underwater photographs. The trail will be promoted by press release, circulated to several major diving magazines, and promotional posters for local and major diving shops. The project will run until the end of 2011 with a report detailing the number of divers participating and their feedback of the experience.

3. Background (taken from Wessex Archaeology Site Assessments 2006 and 2007)

The site was discovered by local divers Martin Wiltshire, Steve Pace and Paul Stratford whilst trying to free a lobster pot in Norman's Bay. It is known to be a large warship of the period 1600-1800. Judging from the length of the visible remains the vessel would have been approximately 40m (131 feet) long, with an approximate breadth of 12m (39 feet). The number and size of the armaments and the anchor seem to suggest this was a third rate warship of 800 to 1000 tons.

The wreck lies at Latitude 50° 48.1767' N, Longitude 00° 24.6380' E, WGS 84 (as provided by Wessex Archaeology in their 2007 report). This is in Norman's Bay in East Sussex, just south of Pevensey, near Eastbourne. The depth of water over the site varies from 7m to 15m.

Many people believe the Norman's Bay wreckage is the wreck of HMS *Resolution*, but there are at least three other recorded losses in the bay which makes identifying the wreck difficult. HMS *Resolution* was a 70-gun third rate that sank during the great storm of 1703. Other recorded losses include a Dutch man of war lost in 1690 at the battle of Beachy Head when an allied English and Dutch force was heavily defeated by the French. Seven Dutch ships were lost in the battle, at least three of these are supposed to have sunk in Norman's Bay. The names of two of the seven Dutch Ships are unknown the other five were the *Vriesland*, *Wapen Van Utrecht*, *Maagd Van Enkhuizen*, *Elswout/Elswoud* and *Tholen*.

Preliminary dendrochronological research by Nigel Nayling for English Heritage (Nayling 2008) has suggested it is more likely one of the Dutch ships as the wood of the hull section appears to have originated in Germany or the Low Countries in the middle of the 17th century, although it is still possible that it was a Royal Navy vessel built from imported continental timber. Wessex Archaeology has carried out three investigations into the wreck and even though it hasn't been conclusively identified it has been a protected wreck under the Protection of Wrecks Act (1973) since 14th June 2006.

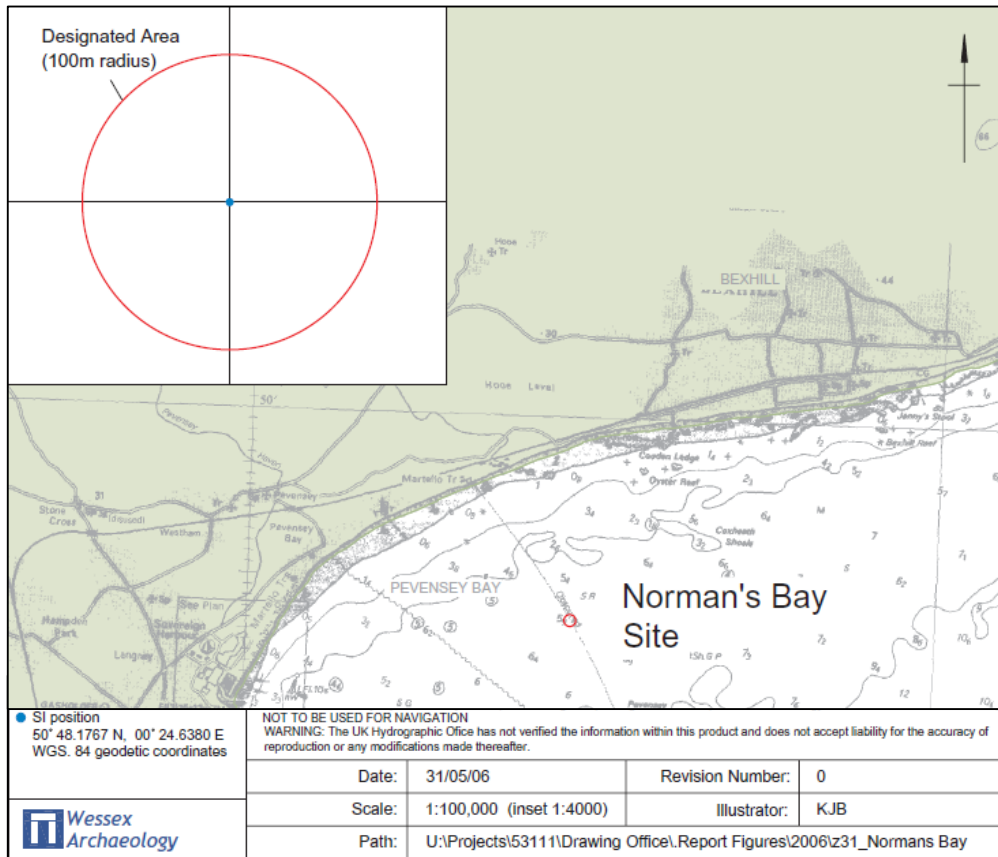


Fig 1: From Wessex Archaeology, 2006. Norman's Bay Wreck, East Sussex, Designated Site Assessment ref. 53111.03nn

Archaeological searches and assessments carried out in the surrounding area are as follows:

- 1985: The Nautical Museums Trust (NMT) heard of salvors searching for the wreck of HMS *Resolution* and set up the warship resolution trust as a subsidiary charity of the NMT, to which the wreck was given, in case it was destroyed or damaged once it was found.
- 1989: The Nautical Archaeology Society searched for the remains of the *Resolution* but they had no results, no archaeological material was recovered.
- 2005: A local fisherman snagged a lobster pot and asked local diver Martin Wiltshire to free it. Martin, along with fellow divers Steve Pace and Paul Stratford, came across a large anchor and guns. After contacting the Shipwreck Heritage Centre in Hastings and English Heritage they performed a few subsequent dives and came across bricks, copper sheeting and timber. This led to the first WA Undesignated Assessment.
- Wessex Archaeology 'Undesignated Site Assessment (Ref: 53111.02k-8) – April 2005' the result of this assessment was that the site was designated a protected wreck under the Protection of Wrecks act (1973)
- Wessex Archaeology 'Designated site Assessment (Ref: 53111.03nn) - November 2006
- Wessex Archaeology 'Designated Site Assessment (Ref: 53111.03zz) – November 2007

4. Site

The site contains a cluster of at least forty-two iron guns, timber hull structure and various other artefacts including a large anchor on top of a ballast mound.

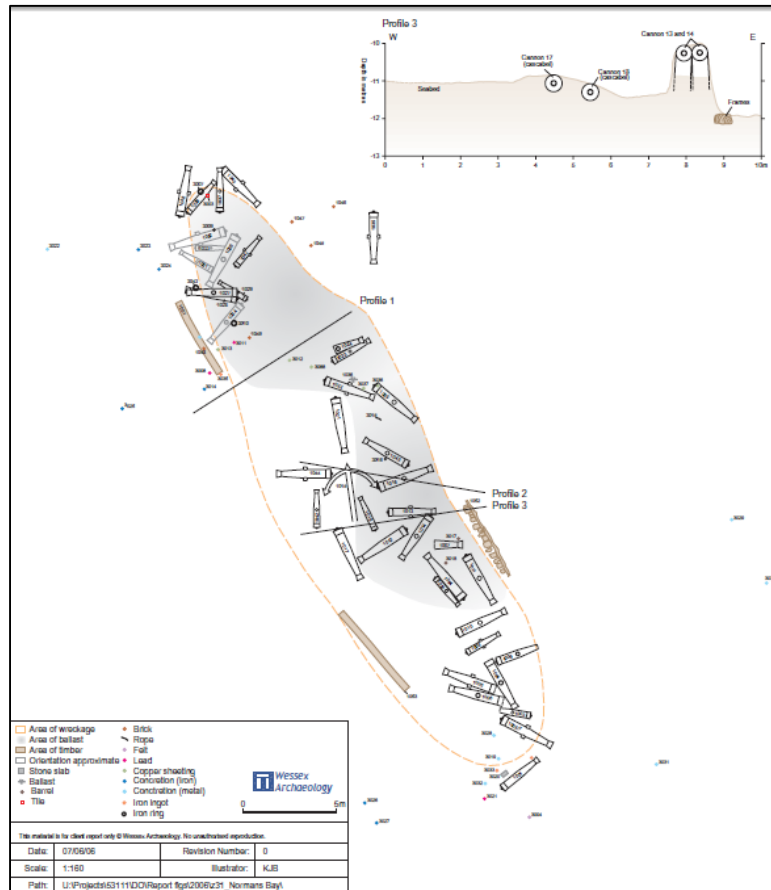


Fig 2: From Wessex Archaeology, 2006. Norman's Bay Wreck, East Sussex, Designated Site Assessment ref. 53111.03nn

The scattered cannons are made up of (what are assumed to be) three 24-pound cannons, seven Demi-Culverin/12-pounder cannons, fifteen Saker/6-pounder cannons and two 3-pounder cannons along with several that are too deeply buried or concreted to be measured. Alternatively taking into account an average 0.03m of concretion it is possible that there are ten 24-pound cannons, fifteen 12-pound cannons and two 6-pound cannons, which is more fitting with the armament of the warship HMS *Resolution*.

There are also several areas close together which had a layer of uniform red bricks scattered around, believed to be the galley area and in this area there was also found various pieces of thin copper sheathing which may represent fragments of the ships kettle.

The site contains plenty of flora and fauna including a large number of Tompot Blennies (*Parablennius gattorugine*) there are also Common Starfish (*Asterias Rubens*) over the site. The site is frequented by large schools of Bib (*Trisopterus luscus*) and there have also been sighting of what is possibly a Humpback Prawn (*Pandalus monatgui*), many timbers had a heavy covering of sessile marine growth and some of the exposed timbers were heavily burrowed by Piddock (*Pholas dactylus*).

5. Aims and Objectives

The aim of this project is to install a number of observation stations around the Norman's Bay wreck and provide an underwater information booklet guiding divers around the wreck by using the observation stations, explaining the exposed remains and detailing brief background information on the wreck. This project is aiming to emulate successful trails established on the other protected wrecks of HMS *Hazardous* in Brackelsham Bay, West Sussex and on HMS *Colossus* off the Isles of Scilly.

Although the Norman's Bay wreck appears to be relatively stable some increased exposure of timbers has been noted by the licensee to the southwest of the site and continued exposure and denudation of the mobile seabed sediments could be a cause for concern and should be monitored regularly (Wessex Archaeology 2007).

The project aims to involve the Marine Conservation Society and the "SeaSearch Project", providing information about the local wildlife around the wreck as well as involving divers in wildlife surveys and assessments. This will provide a holistic approach to both the presentation and the future management of the site.

As well as providing the trail for recreational divers the aim is to combine these visits with the collection of survey data to allow further assessments and investigations to help understand and interpret the wreck assemblage.

6. Business Case

The philosophy of English Heritage is to encourage the participation of avocational volunteers in the management and understanding of their heritage and to encourage them to care for it, through a cycle of understanding, valuing, caring and enjoying the historic environment.

English Heritage's Initial Policy for The Management of Maritime Archaeology in England, *Taking to the Water* identifies the need ... *to engage with the recreational diving community and the non-diving public to instil an enthusiasm for the maritime environment and its conservation.* (Roberts and Trow, 2002)

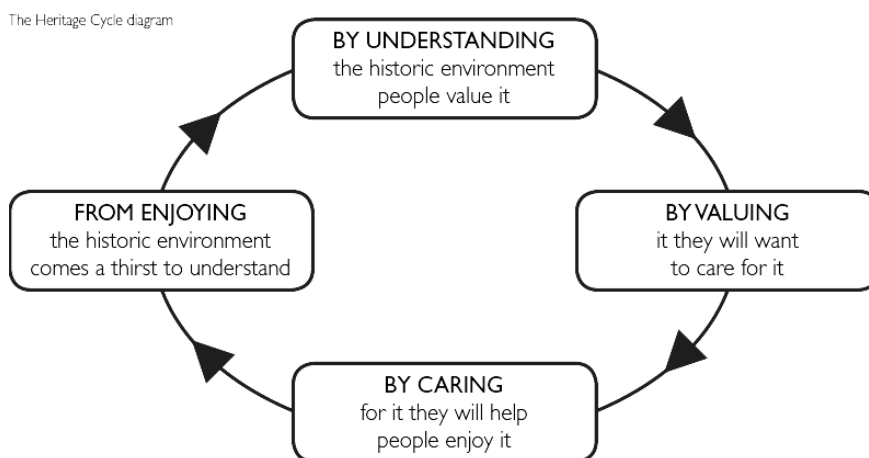


Fig 3: *The Heritage Cycle*, from English Heritage SHAPE 2008, *Strategic Framework for Historic Environment Activities and Programmes in English Heritage*

7. Corporate Objective and SHAPE

The English Heritage corporate objective which forms the primary driver of the project is:

5B: Broaden access to the historic environment and engage with diverse communities.

Sub-Program Name	Presentation of Designated Wrecks
Sub-Program Number	52333.110
Corporate Objective	5B: Broaden access to the historic environment and engage with diverse communities
Activity Type and Program	COMMUNICATION C3: On show: Support for nationally important displays of historic artefacts/ sites/ buildings
Sub-Program Description	Projects bringing access to Designated Wreck sites to new audiences and visitor groups including the non-diving public and non-vocational leisure divers. Examples might include: <ul style="list-style-type: none"> • On-site interpretation and signage • On-shore installations and displays • Web-based visitor facilities
Reason For EH Support	Recognizes the value of marine protection, releases the public benefit, and contributes to a coherent presentational strategy across terrestrial and marine environments
Similar Sub-Programs	Linked to 51332.110, but specifically about protected wreck sites

8. Project Scope

There are six elements to the project:

- 1) Research and develop the appropriate method for the trail;
- 2) Install the diver trail observation stations on the seabed around the wreck;
- 3) Produce water resistant underwater guides, including marine life reporting;
- 4) Promotion of the dive trail by press releases to diver magazines, web-pages, leaflets
- 5) Submission of images from the site to the English Heritage Maritime Group *Flickr* pages (<http://www.flickr.com/groups/ehmaritime>) web-pages.
- 6) Produce project report analysing uptake and evaluating the success of the trail.

9. Interfaces

The project will interface with the Marine Conservation Society's "Seasearch Project" The "Seasearch Project" is a project for volunteer sports divers who have an interest in what they're seeing under water, want to learn more and want to help protect the marine environment around the coasts of Britain and Ireland. The main aim is to map out the various types of sea bed found in the near-shore zone around the whole of the Britain and Ireland. In addition we are recording what lives in each area, establishing the richest sites for marine life, the sites where there are problems and the sites which need protection. The Norman's Bay Designated Wreck Diver Trail project will be supplying marine biological information to the "Seasearch Project" and the Diver Trail Underwater Guides will include information of species to look out for on the wreck.

The project will also interface with the other two other successful trails established on the other protected wrecks of HMS *Hazardous* in Brackelsham Bay, West Sussex and on HMS *Colossus* off the Isles of Scilly. The project team will correspond with the organisers of these two trails to ensure that lessons are learnt from and passed on to other groups.

10. Communications

The project team will keep in constant communication by telephone and email. We will keep English Heritage informed through emails and reports at monitoring meetings. The following people will be involved and need to be consulted and kept informed of the project's progress:

- Paul Stratford (Norman's Bay licence holder)
- Newhaven Scuba Centre
- Local Dive Charter Skippers
- Wessex Archaeology
- Marine Conservation Society's Seasearch Project
- Hastings Shipwreck Heritage Centre

11. Project Review

The first review of the project will be produced by the 25th October 2010, followed by a second review on the 21st December 2010. A third review would be undertaken on the 24th June 2011 with a final review on the 14th November 2011. The final project report would be submitted to English Heritage on the 23rd December 2011.

12. Health and Safety

All work will be conducted in accordance with the NAS "Health and Safety Policy" and all diving operations will be undertaken under the NAS "Approved Code of Practise for Diving Projects" which is in accordance with the Health and Safety Executive (HSE) Approved Code of Practice for Scientific and Archaeological Diving Projects (HSE 1997). Prior to carrying out on-site work a risk assessment will be produced for the project.

The testing of the diver trail by the Nautical Archaeology Sub Aqua Club (Sub Aqua Association (SAA) Branch Number 1127) and the Newhaven Scuba Centre (Professional Association of Diving Instructors 5* centre) will be undertaken under the SAA and PADI Diving Codes of Conduct.

13. Resources and Programming

13.1. Team Structure

Stage	Personnel	Details
Planning	NAS Project Officer with oversight by NAS Programme Director	NAS
Installation	NAS Dive Team with oversight by NAS Programme Director	NAS
Trialling	Nautical Archaeology Sub-Aqua Club Divers and Newhaven Scuba Centre	NASAC, Newhaven Scuba Centre
Reporting	NAS Project Officer with oversight by NAS Programme Director	NAS

13.2. Project Stages

There will be three main stages to the project. Firstly the project development stage and secondly the project delivery stage. The final stage will be the writing up of the final project report. During the course of the project close liaison with Alison Hamer at English Heritage will be undertaken to ensure kept informed of project progress.

The development stage will include researching and designing the trail. This will include choosing suitable locations for each of the seabed stations, designing the underwater guides and promotional materials. We will also at this stage set-up the photo hosting website ready for the first trials as this will enable us to test the technology and get some images for the underwater guides and promotional material. Finally the development stage will involve obtaining a list of divers interested in participating in the project ready for the official launch. This would be done at the NEC Dive Show in October 2010 and the NAS Annual Conference in November 2011.

The delivery stage will involve launching the trail to the public at the South East Regional BSAC Conference (called DiverSE'11) to be held in March 2011 with the first official trips being organised in July, August and September 2011.

13.3. Project Products

The products that will be created by this project are:

- A diver trail design for the the Norman's Bay designated wreck site
- 40 underwater guides to accompany the trail
- Underwater Seabed stations to aid navigation
- Project promotion including, web-pages including a public photographic library of the wreck and promotion material including leaflets and display banner

By-products of the project will be:

- Submission of data to the English Heritage *Flickr* group webpages, to the licensee Paul Stratford, as well as marine life assessment surveys of the wreck site provided to the Marine Conservation Society's "Seasearch Project".
- Project reports including an a final report with an evaluation of the success of the trail

14. Product Descriptions

14.1. Trail Design

Product number	1
Product title	Final design of the Norman's Bay Diver Trail
Purpose of Product	To allow the installation and testing of the seabed trail
Composition	Draw plan of site with locations of seabed stations
Derived from	Site plans already created by Wessex Archaeology augmented by drawings and observations by NAS dive team and volunteer divers.

Format and Presentation	Site Recorder 4 file and printed A3 plan
Allocated to	Project Officer
Quality criteria and method	Approval by English Heritage Protection of Wrecks Act staff
Person responsible for quality assurance	NAS Programme Director
Person responsible for approval	NAS Programme Director
Planned completion date:	Final trail design by 19 th June 2011

The trail will consist of numbered seabed stations (estimated between 6 to 8). Based on the designs of previous dive trails such as on HMS *Colossus* (CISMAS), divers would arrive on site from a permanent mooring situated close to the wreck site (possible locations identified in image below). At present there is no permanent mooring block on the wreck and this would need to be installed prior to the trialling of the trail. Funding for the installation of the buoy has been obtained from a Lloyds Register "Project 250" grant. Tests will be carried out to determine if it will be necessary or even possible to install a length of sinking line between the mooring block to a seabed station which will help divers to find the site in poor visibility.

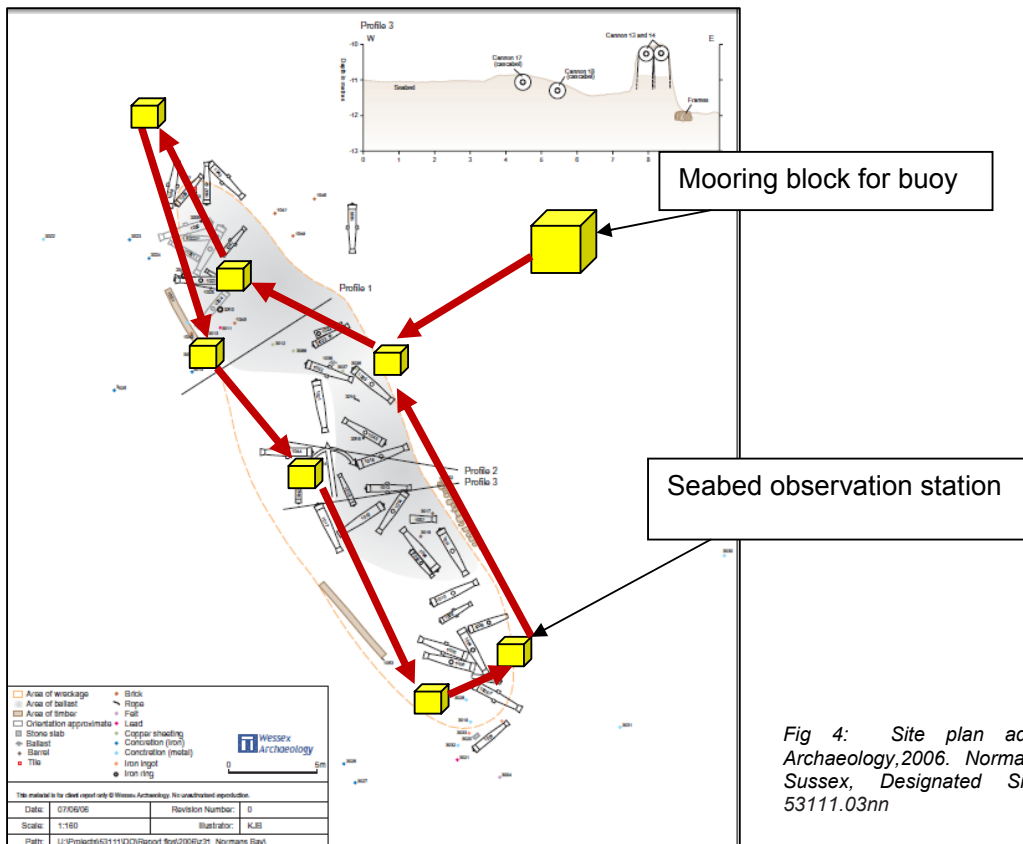


Fig 4: Site plan adapted from Wessex Archaeology, 2006. Norman's Bay Wreck, East Sussex, Designated Site Assessment ref. 53111.03nn

14.2. Underwater Guide

Product number	2
Product title	Underwater guide booklet for the Norman's Bay Diver Trail
Purpose of Product	To allow the testing and the public launch of the seabed trail
Composition	Hardwearing 6 double page booklet designed for underwater use
Derived from	Site plans already created by Wessex Archaeology augmented by drawings, photographs and observations by NAS dive team and volunteer divers.
Format and Presentation	Laminated A5 ring bound booklet
Allocated to	Project Officer
Quality criteria and method	Approval by English Heritage Protection of Wrecks Act staff
Person responsible for quality assurance	NAS Programme Director
Person responsible for approval	NAS Programme Director
Planned completion date:	Beta versions by 26 th November 2010. Final version by 8 th July 2011

The underwater guides will be principally held by Newhaven Scuba (the local dive shop). It will be hard-wearing and water proof allowing divers to take it underwater with them. It will be similar in style and design to existing guides designed for the dive trails at Alum Bay (Figure 5, HWTMA) and HMS *Colossus* (Figure 6, CISMAS), though our own trials will be carried out to determine the most suitable and cost-effective materials.

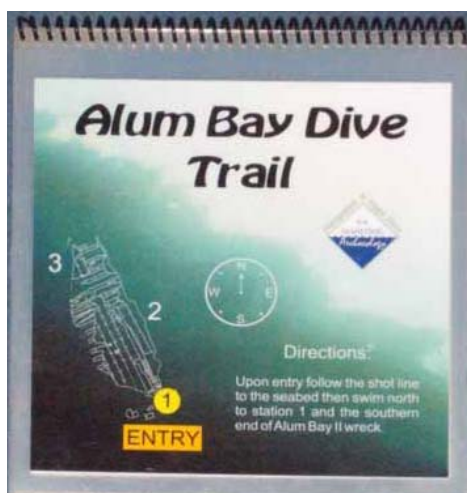


Figure 5: The Alum Bay underwater guide (HWTMA)

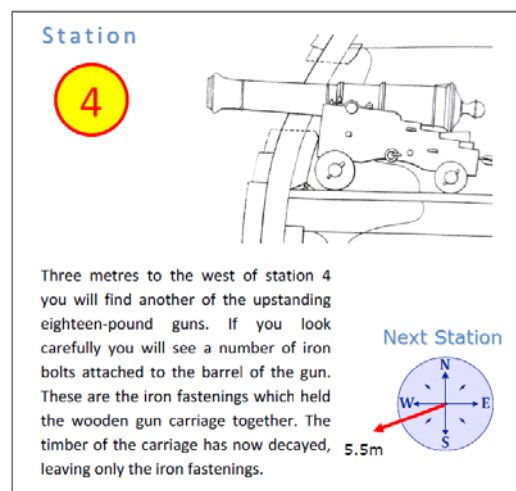


Figure 6: Underwater guide for the HMS *Colossus* Diver Trail (CISMAS)

One idea connected with the photo website is printing a black and white photo scale along the bottom of the back page of the underwater guide. Most of the copies of the underwater guide will be held by Newhaven Scuba, as they will be responsible for taking divers out to the site. Chartered dive skippers in the area will each hold a promotional copy of the underwater guide which divers can view and which will include information about how to go about legally visiting the wreck. Additional guides would be made to replace any lost or damaged copies during the project.

40 copies of the guide will be initially printed with 12 to be held by Newhaven Scuba for loan to visiting divers, 10 for distribution to local charter boat skippers and dive clubs, 12 copies will be held by the NAS, 3 held as reserves for losses and 3 copies will be provided to English Heritage.

14.3. Seabed Stations

Product number	3
Product title	Underwater seabed stations for the Norman's Bay Diver Trail
Purpose of Product	To allow the testing and the public launch of the diver trail
Composition	Between 6 and 8 concrete sinkers
Derived from	Schematic drawings by Project Officer and marine concrete sub-contractor
Format and Presentation	Will take the form of bucked sized concrete sinkers with a small numbered float attached. Tests will be carried out to determine whether a line on the seabed is needed to aid navigation to the next station or whether a compass bearing would suffice.
Allocated to	Project Officer
Quality criteria and method	Approval by English Heritage Protection of Wrecks Act staff
Person responsible for quality assurance	NAS Programme Director
Person responsible for approval	NAS Programme Director
Planned completion date:	Installed by 10 th September 2010. Back up dates in case of bad weather is 8 th October 2010.

As described in 14.1 the seabed stations will be placed at points of interest around the wreck. They will consist of a numbered buoy floating about one metre above the seabed, attached to a concrete sinker (Figure 7). As per the trail on HMS *Colossus* (CISMAS), it is envisaged that each station will also include a direction arrow indicating the direction of the next station. The numbers on the stations will correspond to descriptions in the underwater guide; they will also be shown on the site plan on the back cover of the guide. Once installed, the concrete sinkers will be left in place on site. The floats and wires will be removed at the end of each dive season and replaced the following spring – avoiding damage in the winter storms.

Previous dive trails have had problems with the stainless strops used to secure the buoys to the concrete sinkers; they found that fastenings made from copper alloy failed within weeks of installation due to electrolysis. Due to these considerations, during the trial period different materials will have to be tested to make sure they remain secure. The concrete sinkers will be embedded in the mobile sediment of the seabed. Initial enquiries with Alison Hamer at English Heritage have suggested that in order to do this an excavation licence will be required from DCMS and a licence from the Marine Management Organisation (MMO) may also be required. Contact has already been made with the MMO to establish if this is the case. The task of establishing the concrete sinkers will be undertaken by a team of HSE qualified divers from the NAS under the NAS "Approved Code of Practise for Diving Projects" which is in accordance with the Health and Safety Executive (HSE) Approved Code of Practice for Scientific and Archaeological Diving Projects (HSE 1997).

Monitoring and maintaining the underwater stations, and removing/replacing the buoys over winter will be undertaken free of charge by divers from Nautical Archaeology Sub Aqua Club (Sub Aqua Association (SAA) Branch Number 1127) and the Newhaven Scuba Centre (Professional Association of Diving Instructors 5* centre) will be undertaken under the SAA and PADI Diving Codes of Conduct.

Ownership and responsibility for the seabed stations will remain with the NAS.

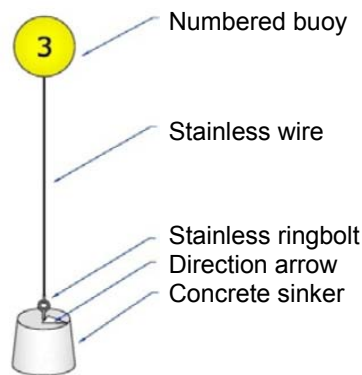


Fig 7: Dive Trail Seabed stations, from the HMS Colossus dive trail project design (Camidge 2009)

14.4. Promotion of the Dive Trail

Product number	4
Product title	Promotional activities and materials for the Norman's Bay Diver Trail
Purpose of Product	To raise interest in the diver trail so that at least 4 events can be held in 2011 with enough participants to obtain meaningful feedback to questionnaires
Composition	Press releases, articles in magazines, web-pages, leaflets, and business cards
Derived from	Designs created by Project Officer from images and plans created by Wessex Archaeology and NAS dive team
Format and Presentation	Variety of formats – mostly generated in MS Publisher or Adobe InDesign
Allocated to	Project Officer

Quality criteria and method	Approval by English Heritage Protection of Wrecks Act staff
Person responsible for quality assurance	NAS Programme Director
Person responsible for approval	NAS Programme Director
Planned completion date:	Launched in March 2011. Ongoing promotion throughout 2011.

The following steps will be taken to promote the dive trail on the Norman's Bay wreck:

- A press release will be sent to the major dive magazines as well as NAS, English Heritage and Council for British Archaeology publications
- Web-pages hosted on the Resolution Project website (owned by licensee Paul Stratford) - <http://www.resolutionproject.co.uk> or on the NAS website
- Links to other websites including "Lloyds Register 250 Project"
- Leaflets will be made for local and major dive shops
- Promotional business cards for distribution to local charter boat skippers
- Via the English Heritage Licensee E-Bulletin
- Launch at the South East Regional BSAC Event – DiverSE'11 (March 2011)

15. Reports

An interim report will be produced at the end of the 2010 dive season; this will include the results of the tests involving suitable materials for each aspect of the trail and the conclusions drawn from the trials and feedback of all diving teams. A full report of the finished project will be produced by December 2011 once the first full diving season is finished with the project up and running to be able to provide a reasonable level of participant feedback.

These reports will be produced by the NAS Project Officer with oversight by the NAS Programme Director.

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