



Maritime Archives and The Crown Estate Project Report



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Maritime Archives and The Crown Estate

Project Report

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i. Document Control

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The Crown Estate Marine Stewardship Fund has generously supported this project.

- The Crown Estate is an estate valued at more than £7 billion, including substantial blocks of urban property, over 120,000 hectares (300,000 acres) of agricultural land in England, Scotland and Wales, more than half the foreshore, together with the seabed out to the 12 mile territorial limit.
- As owners, managers and guardians of one of the world's most important and diverse urban, rural and marine property portfolios are underpinned by the three core values of commercialism, integrity and stewardship.
- The Crown Estate's marine properties include more than half of the UK's foreshore (17,000 km), 55 per cent of the beds of tidal rivers and estuaries and almost the entire seabed out to the 12 nautical mile territorial limit around the UK. It also includes the rights to the natural resources in the UK Continental Shelf, with the exception of oil, coal and gas.
- The Crown Estate manages its assets on a commercial basis, guided by the principles of sustainable development and social responsibility. We are committed to sustainable and long-term management of these unique assets.
- The Crown Estate established its programme of Marine Stewardship to provide funding to support practical projects, relevant research, and other initiatives that improve the status and management of the marine estate.
- Since 1999, The Crown Estate's Marine Communities Fund has contributed nearly £5 million to support community groups, voluntary and other organisations for practical projects that contribute to best practice in environmental management. For more information on The Crown Estate and the Marine Communities Fund, visit www.thecrownestate.co.uk, or contact: Katie King, Communications Dept, The Crown Estate, 020 7851 5009 katie.king@thecrownestate.co.uk

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iv. Project Summary

The Maritime Archives and The Crown Estate Project was undertaken in response to the current situation whereby few archives from maritime archaeological investigations are being deposited in public museums or repositories. As seabed owners The Crown Estate (TCE) have a role to play in archives from on and within their estate, this project has investigated areas where TCE as managers can contribute to improving the fate of maritime archaeological archives through ensuring they are made publicly available through the application of standards, guidance and best practice. It has also highlighted a range of areas which require support from across all relevant sectors to contribute to improved archive deposition.

The project involved five areas of research related to different issues or themes where there are acknowledged problems with archiving roles, responsibilities, policy or practice. Work included desk based research, meetings, phone interviews and extensive email correspondence with a range of individuals and organisations.

Roles and responsibilities within the marine development framework

Research has established that roles and responsibilities within marine development are becoming more formally established. The Marine and Coastal Access Act 2009 and Marine Scotland Act 2010 have provided a focus on marine licensing and conditions on consents. Despite these positive developments there are still some areas where work is required, in particular:

- Clarity of responsibility for monitoring compliance with conditions, including how non-compliance is recognised and reported.
- Clearer guidance is needed for those applying for a marine license (usually the developer) on their responsibilities related to archiving and cultural heritage.

What archive from marine development control is currently being deposited, where and in what format

Research has demonstrated that the numbers of reports reaching the National Monuments Records (NMRs) from marine development projects is low, this is particularly acute in England where there is, and has been, relatively large amounts of development. This project has been undertaken at a time when this issue is being reviewed, along with other digital archiving issues, by the NMRs and Archaeology Data Service (ADS), so future improvements are expected. There also some differences between the NMRs in terms of archive material from development control projects they are willing to receive with Scotland and Wales willing and able to full archives, whereas in England only reports are taken. However, until clear responsibilities for the monitoring of conditions on consents, which includes ensuring archives have been deposited appropriately, are established in policy and practice there may still be projects which do not reach the NMRs.

Recommendations for improvements to this situation include:

- Being more specific within conditions on consent applied by regulators in relation to the need to deposit archives in public repositories.
- Greater communication between heritage curators who recommend archaeological conditions and the NMRs may help to ensure project archives are deposited.

- TCE may be able to help improve archive deposition through being more specific within their own conditions for any licences.
- Issues of past development control projects which have not been archived and are residing with contractors requires review and practical solutions developed to get them deposited in a public repository.

The fate of artefacts within marine aggregate licences

Research has demonstrated there are issues related to the inclusion of non-wreck cultural heritage within aggregate licenses, the present system whereby ownership of heritage material passes to the aggregate companies needs to be addressed to ensure artefacts are archived in public repositories. A positive aspect related to aggregate extraction and cultural heritage is the British Marine Aggregate Producers Association (BMAPA) Protocol for reporting discoveries of archaeological interest. The Protocol is helping develop understanding of seabed heritage through reporting of objects encountered, the scheme ensures these are recorded and the information made available. The long-term fate of some of the artefacts reported via the Protocol is not clear due to lack of receiving museums or repositories, some find homes within educational collections, but others are returned to the aggregate companies who are then ‘holding’ the material. This situation is not ideal as artefacts are not curated or easily accessible. Some recommendations for improving this situation are:

- TCE to undertake a review of how cultural heritage is dealt with in aggregate licences, particularly non-wreck material. This should aim to ensure artefacts of local, regional, national and international importance are provided long-term homes in publicly accessible facilities.
- Supporting efforts to develop archaeological archiving capacity for the marine zone, particularly in England, may help with solutions to finding long-term homes for artefacts from dredging.
- Support continuing the BMAPA Protocol should be maintained as it is helping make information available for research, education and general public interest.
- Further research into the numbers and types of artefacts currently residing with aggregate companies and/ or stored on wharves would help quantify the extent of the problem.

The fate of archives within ports and harbours

Research has demonstrated that while there are some positive areas of development in relation to archives within ports, harbours and estuaries, there are also a number of areas of concern. Key areas which require consideration are:

- Treatment of heritage within works that do not trigger a full EIA.
- Uncertainties over responsibilities for curation and monitoring of conditions in coastal and marine zones, with the resulting impact on archives from investigations.
- There is a lack of detailed cultural heritage guidance documents for the sector, this is probably a factor in the relatively poor understanding within the sector of archaeology and heritage and its appropriate treatment.

Recommendations to help improve this situation include:

- Development of detailed best practice and guidance on cultural heritage for ports, harbours and estuaries.

- Develop clarity for responsibility for cultural heritage when encountered outside the EIA or development process (eg during harbour works).
- Further research would be beneficial to help determine levels of heritage representation on coastal groups and forums with the aim of increasing the profile of heritage within these groups and hence management approaches and decisions.
- A review of a larger selection of port and harbour plans, particularly those of commercial operators, would help enhance understanding of sector approach to the historic environment and determine whether further specific guidance is required.

The Receiver of Wreck system

Research has identified a number of areas where the treatment of historic objects through the RoW system means that best practice and Government commitments under International Conventions may not be being met. While it is acknowledged that the role of the RoW is to resolve ownership of recovered property, this is having an impact on cultural heritage, in particular:

- Hundreds of objects of local, regional, national and international historic significance are being recovered from the seabed each year.
- Historic assessment of objects is undertaken on a case by case basis, however, few of these objects find homes in public museums or repositories.
- Objects from Government (publicly) owned wrecks are often being given in lieu of a salvage award to those who have recovered them, essentially moving publicly owned heritage into the private sector. It is unclear how Government departments are assessing the historic value of these objects.
- Data gathered by the RoW often includes photographs of objects, but it dependant on information provided by the salvor. This data is making its way to some NMRs, but there is a backlog with some and a gap in terms of data flow with others.

Recommendations for improvements to this system include:

- Recording more detailed historical information on objects which is then made publicly available for research, education and general interest. This would include improved data exchange with the NMRs.
- Develop more active liaison with public museums and archives which may be willing or able to accession recovered objects, and/ or with potential development of maritime archaeological archive solution/s for England.
- Support further research on individual or types of objects through greater liaison with the University sector. Also consider the wider research potential of data held by RoW to add to developing maritime research frameworks and agendas.
- TCE to consider contributing funding towards a post within the RoW office specifically to focus on heritage aspects and addressing the above recommendations.

This report has put forward a range of recommendations for improvements or further work to help improve the fate of archaeological archives from the marine zone. It is not only the responsibility of TCE to help provide solutions to this situation, however, as seabed owners and managers there are wider marine stewardship issues at stake to which TCE can make a positive contribution. Through greater engagement with archive issues TCE can work with heritage agencies, government departments, developers, archaeologists, and museums and archive organisations to make a significant impact.

1. Introduction

The Maritime Archives and The Crown Estate (MATCE) project has been undertaken following recognition of a range of issues which are currently affecting the deposition of the archives from maritime archaeological investigations within publicly accessible museums and repositories. Previous work has identified a number of areas where the work of The Crown Estate (TCE) in managing the marine estate may be able to influence this situation to provide improvements in developing access to archives. This report details the results of the project which has concentrated on five key areas:

- Marine development roles and responsibilities
- Archive deposition within the current system
- Artefacts within marine aggregate licensing
- Archaeology and archives within ports and harbours
- Historic material and the Merchant Shipping Act

1.1 Project Background

At present there are few museums and archive repositories accessioning collections from the marine environment. This is compounded by a lack of clarity in terms of the management framework for maritime archive material within development control, research or reported through the Receiver of Wreck (RoW), which means there are no clear routes for archives to reach publicly available repositories. As a consequence maritime heritage is ‘slipping through the net’. It is being dispersed, is deteriorating, remains un-interpreted and un-curated, is sold, or sometimes simply abandoned. As this continues, more of our past is placed beyond the reach of the research community, schools, community groups, and the public as a whole.

Why maritime archaeological archives are important

The archaeological record itself, the physical remains of our past, is a finite resource. In the marine environment, it is one that is constantly under threat from the dynamics of currents, tides, storms and human impacts, and at the same time is a resource that is often destroyed by the process of archaeological investigation itself, by excavation. Archaeological archives are a nationally important resource; they offer the means to re-access, re-interpret and re-assess the past, and as a result to re-define and re-articulate our own identity (Ransley 2006).

The vast potential of the maritime archaeological resource to contribute to many aspects of society is not being realised. Key areas where archives can contribute are:

Education: schools, colleges, universities, community groups, adult learning



Public Enjoyment: interest, understanding, knowledge, sense of place, identity, volunteering



Research: archaeology, history, marine environment, physical processes



Management: seabed resource, environmental & climate change, sea-level rise

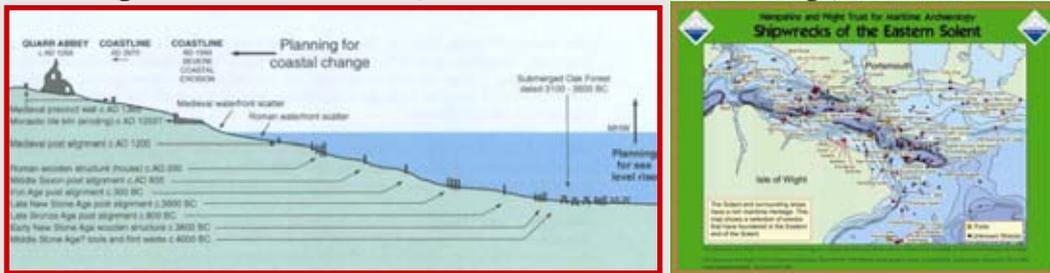


Figure 1: Montage of maritime archaeology and marine cultural heritage. (Images copyright HWTMA other than: row 3 centre courtesy of Invincible Project, row 5 left courtesy of Life Project)

Work by the Institute for Archaeologists (IfA) Maritime Affairs Group (MAG) highlighted this dire situation and resulted in the production of a discussion document *Slipping Through the Net: Maritime Archaeological Archives in Policy and Practice* (Ransley 2006), and the subsequent *Securing a Future for Maritime Archaeological Archives Project* (SFMAA) (HWTMA 2009 a,b & c). The project results stress that to improve this situation there will need to be action taken by a range of stakeholders including Government departments, curators, museums, seabed owners, marine managers and archaeologists. The SFMAA project has provided the baseline data on which to determine the scale of the problem and key issues affecting it. Now a number of ‘follow on’ projects are required to clarify the situation in a range of areas. This prompted the application to TCE Marine Communities Fund to enable management issues relating to TCE’s marine estate and the cultural heritage resource to be further analysed. Further background is provided in Appendix 9.1 which includes a summary of key project outcomes from the SFMAA project and sections of relevant text extracted from the SFMAA Element Three report.

Undertaking research as part of the Maritime Archives and The Crown Estate (MATCE) project has been timely due to a number of developments and factors within the marine environment:

Establishment and implementation of new legislation: the Marine and Coastal Access Act 2009 (HM Government 2009) is one of the key drivers for the development of long-term planning and resource management in the marine zone. While this legislation does not specifically include cultural heritage, its implementation has highlighted a range of marine planning and decision making processes that are related to heritage and archive issues. In terms of specific heritage led legislation, it was hoped that the DCMS draft National Heritage Protection Bill (2009), would pass through parliament; this would have brought all heritage assets into a single designation system and increased the ability to protect cultural heritage in the marine zone and treat archives from offshore in parity with those from terrestrial investigations. Although this legislation has currently been shelved, a number of recommendations within it are being implemented which has helped increase awareness of protection requirements.

Significant increases in marine development: the intensification of use of the marine zone and marine resources has led to higher levels of development which require consents backed up with environmental studies. Cultural heritage is considered within these assessments to ensure there are not significant impacts on the resource. This work is generating substantial archives of cultural heritage data through work in relation to aggregate extraction, renewables, ports and harbours, cables and pipelines. Within the current system it is unclear where these archives should be deposited and who is responsible for monitoring deposition. The higher levels of ‘backlog’ mean there is increasing pressure for solutions to be found to this problem.

Greater awareness of archaeological archiving issues: The development of standards and guidance for archaeological archives has received attention in recent years, with the formation and work of the Archaeological Archives Forum helping to raise the profile of archives (<http://www.britarch.ac.uk/archives>).

There are a number of relevant standards and guidance for archaeological archives which shape their composition, format, indexing and management, most notably *Archaeological Archives: creation, preparation, transfer and curation* (Brown 2007).

Development of maritime and marine archaeological research and research frameworks: the development of maritime archaeology as a profession and as a discipline has increased pace over the past decade through a range of management and research drivers. The need to respond to higher levels of marine development and associated archaeological assessment has helped increase the number of heritage professionals. Research and management aspects have been developed through specific funding streams, such as the Aggregates Levy Sustainability Fund (ALSF), and through increased curatorial representation in the marine zone particularly around England where English Heritage have powers to support conservation and protection of underwater monuments out to 12 nautical miles. Results of increased research and management focused marine investigation have also helped highlight the need for archiving capacity.

Recognising the need to take a strategic approach to developing archaeological research in the marine environment, a number of research frameworks have been developed. For England the *Maritime and Marine Historic Environment Research Framework* (Ransley et al forthcoming) provides a review of previous work and sets out future priorities. Within the *Scottish Archaeological Research Framework* (ScARF 2011) there is consideration of maritime archaeology, while the *Research Framework for the Archaeology of Wales* recognises that maritime archaeology is the least studied archaeological resource in Wales (<http://www.archaeoleg.org.uk/>). In addition to the frameworks developed by the devolved nations there are a number of other international initiatives which consider broader heritage themes such as the *North Sea Prehistory Research and Management Framework* (NSPRMF) (Peeters et al 2009).

However, to take forward the recommendations outlined within these research frameworks there is a need to be able to access archives from previous investigations and also to increase capacity to deposit the archives from new investigations.

The developments and issues outlined above demonstrate the timely nature of the MATCE project. However, they also show how this is a rapidly developing field. It should be recognised that this project has been undertaken at a time of change and this report has been produced based on currently available information; where further developments are expected in the near future they have been highlighted in the report.

1.2 Key Issues and Questions Related to TCE

While it is recognised that some of the issues highlighted below are relevant to a number of management situations, these in particular have been selected for consideration as part of the MATCE project due to TCE's key role as seabed owner. TCE has the ability to influence the fate of maritime archives that are not currently becoming publicly available.

While many of the issues raised are most noticeable in England, the situation in Scotland, Wales and Northern Ireland also requires consideration.

1.2.1 Clarification of Roles and Responsibilities within the Marine Development Framework

The SFMAA project demonstrated that there is a fundamental problem in terms of roles and responsibilities within marine development control in relation to archaeological archives, how they are included within conditions of consent and how compliance is monitored. This is a complex situation which now requires clarification.

Key questions/ issues:

- Where does responsibility lie for stipulating that archaeological archives must be deposited in a publicly available archive in a variety of development control situations?
- Who should be monitoring that conditions of consent are being complied with?
- What role does TCE have in the current licensing regime in relation to ensuring best practice is adhered to for archives?

1.2.2 Review of Deposition of Archive from Marine Development Control

Allied to the clarification of roles and remits for marine development control is the need to discover what archive is actually reaching a repository at present. Results from the SFMAA demonstrated that there are a relatively large number of archives building up on contractors' shelves, adding further weight to how the system is not currently functioning. Although some data was acquired during the SFMAA project from English Heritage's National Record of the Historic Environment (NRHE) and the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) heritage database 'Canmore' in relation to maritime archives held, there is a need to extend this research through specific queries related to development control archives and comparison with projects known to have been undertaken. There is also a need to review current digital archives and whether the established standards of the Archaeological Data Service are being applied and adhered to.

Further questions are raised over whether data currently being collected during marine development projects is being fully recognised within data sources such as the NMR and hence integrated within future research and management.

Key questions/ issues include:

- How many reports from development control projects are currently being provided to the NMR and other national repositories? How do these numbers compare with the known projects undertaken in the marine zone over the past 10 years?
- How many contractors are using the OASIS form system? How is this working in relation to data provided to the NMR and local curators?
- How is geotechnical data, particularly relevant to submerged prehistoric landscapes, being translated into the NMR and other national repositories?

- Could a system be established where contractors enter more detailed information into report forms to help develop the level of data availability from development control? Could this system also be used to help monitor compliance with conditions on consent?

1.2.3 The Fate of Artefacts within Marine Aggregate Licences

At present, finds recovered during aggregate extraction that are not wreck material, or potentially for which no owner can be found, are considered to be the property of the aggregate company holding the licence. This raises some key questions:

- Is the potential historic and archaeological resource within an aggregate area taken into account by TCE during the licensing process? If so, how is this assessed?
- Is there any provision within licenses specifically related to cultural heritage material and making material publicly accessible?
- The British Marine Aggregate Producers Association (BMAPA) Protocol has resulted in the reporting of more items of archaeological and historic significance. What has been the fate of these artefacts? Have any been deposited within museums?
- How is the conservation of artefacts assured under the current system?
- Should cultural heritage ownership be removed from future aggregate licences?

1.2.4 The Fate of Archives within Ports, Harbours and Estuaries

The responsibilities for maritime archives derived from ports and harbours needs urgent clarification. Multiple instances of harbour authorities carrying out dredging or maintenance works have resulted in the discovery of sites and finds. This has been particularly highlighted by the Gresham Ship found in the Thames, where the Port of London Authority followed best practice where possible. However, the legal and management framework for these discoveries, particularly those within works that are not large enough to trigger an Environmental Impact Assessment (EIA), is not well established. Questions include:

- How are archaeology and cultural heritage matters being represented within port and harbour management plans? Does this reflect established best practice for cultural heritage?
- Best practice would dictate that the company (or authority) undertaking dredging works should be responsible for any required archaeological works and the associated archiving. How is this happening in practice?
- Are smaller scale harbour works being fully assessed for their potential impact on the marine cultural heritage?
- How can TCE as a major land holder within ports and harbours help improve understanding and consideration within port and harbour authorities?

1.2.5 The Receiver of Wreck (RoW) System

There is further research required to fully understand the current and potential role of TCE, government agencies and the Treasury within the RoW system. The Receiver of Wreck oversees salvage claims made through the Merchant Shipping Act 1995, which seeks to give owners of 'wreck' the opportunity to claim their property. Although the RoW does strive to place historic items in museums when possible, this does not often

happen. With many artefacts being given to the finder in lieu of a salvage award this means a gradual attrition of the seabed archive, with cultural heritage ending up in private ownership. Queries in relation to this situation include:

- Although in cases where TCE is involved it ‘would encourage artefacts to be retained for public interest’ is this currently happening? If not, what are the main barriers to this?
- How is the archaeological and historic importance of artefacts currently being assessed by the RoW? Does this take into account the research potential of items particularly relationships to current collections whether public or private?
- How many of the historic and archaeological items reported currently end up in public museums?
- How is data on historic recoveries currently recorded, how does this information reach publicly available databases?

1.3 Project Aims, Objectives and Approach

The key issues/ questions raised within each of the five areas above were used to develop the project aim, objectives and approach.

The overarching project aim was: to investigate areas where TCE as seabed owners and managers can contribute to improving the fate of maritime archaeological archives through ensuring they are made publicly available through the application of standards, guidance and best practice.

This was split down into five objectives which mirror the key areas identified within section 1.2, they are:

- *Objective One:* Investigation of roles and responsibilities within the marine development framework to develop clarity and ultimately improve the system to ensure all archaeological archives from projects are deposited in a publicly accessible repository.
- *Objective Two:* Review of archive being deposited to assess where there are problems within the current system and assess possibilities for improvement.
- *Objective Three:* Investigation of artefacts within the marine aggregate licensing process, particularly looking at ownership of historic material and whether this is becoming publicly accessible.
- *Objective Four:* Review of procedures and process in relation to archives within ports and harbours.
- *Objective Five:* Review of the handling of historic material within the RoW system

The approach used within the project included desk based research and interviews which were mainly conducted by email and phone calls, with some face-to-face meetings. Details of specific methods used within each of the areas of research have been outlined within the relevant sections of the report.

2. Marine Development Roles and Responsibilities

The investigation into roles and responsibilities within the marine development framework has been undertaken to help clarify the current situation and ultimately to improve the system to ensure all archaeological archives from projects are being deposited in a publicly accessible repository.

2.1 Methodology

In order to develop understanding of roles and responsibilities a set of survey questions were sent to archaeological curators and regulators. The questions were:

1. Who provides the draft conditions on consents or suggested conditions on consents?
2. Are there 'standard' conditions on consents e.g examples of wording that is used regularly? If yes, can copies of these be provided for this project?
3. Are archives specifically mentioned within conditions on consent?
4. Are there distinctions between where project report copies should be sent and where the full archaeological archive should be deposited?
5. Who monitors that either reports and/ or archives from development control projects have been deposited?

Responses were collated and assessed with the results presented below. Analysis also drew on the information from interviews and research. Summary information on the Heritage Agencies is presented in Appendix 9.2.

Research was undertaken on a range of examples of marine licences which are available from Marine Management Organisations (MMO) websites. In particular the conditions related to archaeology and cultural heritage were reviewed to gain an impression of how conditions suggested by the statutory consultees were transposed by the regulators into formal conditions on consents.

2.2 Roles and Responsibilities: in Theory and Practice

Work undertaken as part of the SFMAA project raised a number of questions in relation to roles and responsibilities within the marine development framework (See Appendix 9.1, particularly summary of Element 3 results). Queries were related to roles and responsibilities, in particular the setting of conditions and the monitoring of compliance. Issues included:

- The different licensing situations in England appear to show a divergence in relation to archiving with the approach for aggregates differing from renewables.
- A number of responses mention OASIS forms, however, a review from ADS of how many have been completed (see Section 3.3) demonstrates very few are filled in.
- TCE expect best practice to be followed, but admit they are unsure whether this is currently the case.
- English Heritage (EH) expect the relevant Secretary of State to monitor compliance with conditions on consent, however, the Marine Fisheries Agency

(now MMO) expect English Heritage to be monitoring. This leaves a situation where monitoring is not being undertaken.

- In Scotland the situation with archives is more structured but the application of conditions on consents is localised, and hence, may not be uniform around the country.

As almost three years had passed since the gathering of information for the SFMAA project there had been a number of developments in terms of marine planning and the relationships between curators and regulators. In particular the passing of the Marine and Coastal Access Act (2009) and Marine (Scotland) Act 2010, have changed the marine licensing regime to provide a single point of contact within each devolved nation (see Appendix 9.2 for more detail on the relationship between MMOs and heritage consents).

As seabed owner, TCE were consulted to gain their view of the current situation. Iain Mills (TCE) provided the following information:

“The Crown Estate is not a regulator. There is nearly always a regulator in place for licences/ conditions, this is usually the MMO. As landowner TCE are involved in consenting and licensing when there would be disturbance or removal of the seabed, site investigation activities which do not cause disturbance do not usually require consent.

TCE do review applications submitted through the MMO – FEPA or Coastal Protection Act. TCE are a consultee, so will see any applications where the estate may be affected.

In general TCE rely on other consultees for comment on specialist areas, so it is the role of English Heritage to provide comment/ advice/ conditions related to cultural heritage that may be impacted by a proposed development or works. The MMO then decide how the advice or requirements from EH is included within conditions.

TCE wouldn't normally suggest archaeological conditions as they are not an environmental regulator and do not have the expertise.

The process should be that the MMO set the conditions and then EH should monitor those related to heritage.

There is an interesting analogy here with environmental conditions 10 years ago. Conditions were being imposed on licences/ consents, but there was no structure in place for monitoring compliance of these. This has developed now and monitoring appears takes a higher priority in conditions set by the MMO”.

To discover further details of roles and responsibilities within marine development across the devolved nations the individual heritage agencies and regulators were consulted with specific questions related to the setting and monitoring of conditions and how archives may be included within these.

2.3 Conditions on Consents

The development of legislation including the Marine and Coastal Access Act 2009 and Marine Scotland Act 2010 has developed and formalised the marine management licensing system. The statutory consultees for heritage (also see Appendix 9.2) are responsible for reviewing applications and putting forward conditions on consent. The regulators are then responsible for attaching these conditions to the various consents. Increased transparency in decision making has led to the availability of documents submitted for review to the regulators and the various responses received to them. Further information on the precise conditions on consent is also available for some developments.

Where these documents are available it has enabled a review of a selection of examples to examine how the advice provided by curators is included within the regulator's response (see Appendix 9.4 for full detail of examples examined).

Information has also been provided by both curators and regulators through the survey questions circulated. Analysis of these sources has been undertaken in relation to the potential implications for archives from investigations related to development control.

2.3.1 England

English Heritage have powers to support conservation and protection of underwater monuments out to 12 nautical miles, and subject to priorities and resources. English heritage are statutory consultees for developments within territorial waters, advice given for developments outside 12 nautical miles is given without prejudice. The MMO manages development proposals and licensing of activity which may impact the marine environment.

The MMO makes public documents relating to a range of marine licensing applications including environmental impact assessments and related consent decisions (<http://marinemanagement.org.uk/works/environmental.htm>). As part of research for this project a range of available project documentation was reviewed to establish what conditions on consent had been recommended in relation to heritage and whether they included reference to the archiving of projects (see [Appendix 9.4.1](#) for case study examples).

Further detail was obtained from English Heritage who provided a number of examples of conditions on consents that have been developed through the aggregate licensing process, recognising that these would be applied through the new Marine Consents process with the MMO. The example conditions supplied by EH included:

- “The Operator shall ensure that appropriate mitigation measures are developed with archaeological curators, as defined in the guidance note ‘Marine Aggregate Dredging and the Historic Environment’ to protect features of archaeological interest prior to the commencement of dredging. These measures shall be agreed with EH, and implemented as agreed. Archaeological curators, the MMO and TCE shall be informed of the agreed measure(s) prior to commencement of this permission.
- Should any previously unreported wrecks (vessel or aircraft) or other sites of archaeological interest become apparent within the boundaries of the permitted area, during either monitoring or dredging, precautionary exclusion zones will be instituted around them. Exclusion zones will be defined or removed in consultation with EH and an independent marine archaeological consultant appointed by the Operator. The co-ordinates and proposed date of implementation of exclusion zones must be provided in writing to MMO and TCE commissioners prior to them being implemented.
- The Operator shall at all times abide by the Guidance Note ‘Marine Aggregate Dredging and the Historic Environment’, issued by the British Marine Aggregate Producers Association (BMAPA) and EH in April 2003, the related Protocol for Reporting Finds of Archaeological Interest, issued in August 2005, and any subsequent replacement of those documents.

- In the event that features of archaeological and/or military remains of interest are encountered in the course of dredging, the Operators shall comply with the Merchant Shipping Act (1995) in respect of reporting recovered 'wreck' material to the Receiver of Wreck, the Protection of Military Remains Act (1986) in respect to the declaration of 'protected place' status to identified sites and any enactment of the Protection of Wrecks Act (1973) that may occur.
- An OASIS (Online Access to the Index of archaeological investigationS) form is to be submitted for any archaeological reports produced as part of this DP and a copy submitted to EH Maritime Archaeology Team and a PDF file version sent to EH's National Monuments Record (oasis@english-heritage.org.uk). The operator should notify EH if they have directed an appointed consultant to complete this requirement.
- Operational monitoring - All survey data (e.g. geophysical, geotechnical data and any drop-down video, stills camera, Remotely Operated Vehicle (ROV) or diver filmed observations) commissioned by the Operator shall be assessed by an accredited and professionally qualified marine archaeologist as a component of any ongoing monitoring programme. The data should be assessed to confirm the location, extent and morphology of prehistoric and now submerged terrestrial features that may be of archaeological interest, wrecks (including aircraft), and to clarify details of any other obstructions and features considered to be of archaeological interest. Bathymetric data will be used to assess the condition of the seabed in and around known sites of archaeological interest.
- Post dredge survey - A final archaeological assessment must be undertaken and a report of the findings produced. All survey data (e.g. geophysical, geotechnical data and any drop-down video, stills camera, ROV or diver filmed observations) commissioned by the Operator shall be assessed by an accredited and professionally qualified marine archaeologist as a component of any post-dredge survey. The data should be assessed to ascertain the condition of the seabed in and around known sites of archaeological interest, confirm the location, extent and morphology of prehistoric and now submerged terrestrial features that may be of archaeological interest, wrecks (including aircraft), and to clarify details of any other obstructions and features considered to be of archaeological interest. NB - Archaeological review of survey data is part of operational monitoring as standard, although the timings at which this is required may vary from licence to licence."

When asked specifically how archives are dealt with through conditions EH responded: "Our advice to the licensing body will state that any archaeological reports produced as a result of the development should be deposited in local/national archives. Reports go to the NMR [now NRHE] (recorded on OASIS) and any relevant HER. If a full archive is produced (including archaeological material) primacy will be given to the licence holder, any appointed archaeological consultant, and RoW negotiating with museum collections (local and national) to agree deposit" (Ian Oxley/ Ed Salter, *pers comm.*).

In summary, EH currently only ask for copies of reports to be sent to the NMR [now NRHE] and an OASIS form to be completed within formal conditions of consents. As some clauses of the conditions do mention that 'appropriate mitigation measures are agreed with curators' this should mean that arrangements for full archive deposition are made. However, at present this is left up to the developer, consultant archaeologists and/or Receiver of Wreck to negotiate and agree.

It should be noted that at the time of writing the new marine licensing system is being developed and there are a number of areas where policy and practice are still being

decided. This is particularly evident in relation to the licensing of research focused archaeological activity where the costs of application and process of consultation are being established (for information see NAS 2011 *Divers and Marine Licencing*). However, commercially focused development conditions appear to be more structured and established in terms of what activities require licensing.

Additionally changes are being made to recommended conditions on consents, for instance the draft example conditions for marine aggregates licences (outlined above) have already been subject to further revision in order to make them more robust through use of definitive language and enforceable timescales etc. Also, the OASIS condition now includes the caveat for the OASIS form to be completed 'within two weeks of the final report being approved' so that compliance may be more readily monitored.

These changes, within the timescale of this project, demonstrate the rapidly developing nature of marine management, licensing and protection.

2.3.2 Scotland

Historic Scotland (HS) are the curator for cultural heritage in Scottish waters, they are statutory consultees for development proposals and licence applications. Marine Scotland Licensing Operations Team (<http://www.scotland.gov.uk/Topics/marine/Licensing/marine>) became responsible for licencing from the 1st April 2010. Marine Scotland makes available project documentation related to licence applications, associated consultations, responses and resulting conditions via their website. A selection of available licence applications for marine developments have been reviewed as part of this project (see [Appendix 9.4.2](#)).

Further detail was provided by Historic Scotland (Philip Robertson, *pers comm.*) who highlighted that they have been spending time setting up the new system and there is still work to do on this. Within the new system:

“Marine Scotland issues marine licences for Scotland (both the new marine licence and section 36 energy act licences via a one stop shop). Marine Scotland would therefore be responsible for setting conditions. On heritage matters, they will generally take advice from us.

Historic Scotland are working with Marine Scotland to develop conditions and meetings are currently taking place to push this work forward. They have discussed archives, so there should be recognition “that archiving of archaeological reports might be something that would be a condition of a marine licence, where appropriate”.

2.3.3 Wales

CADW (the Welsh word meaning ‘to keep’) is the historic environment service of the Welsh Assembly Government. CADW advises the Welsh Assembly Government regarding the conditions imposed by the licensing of offshore development (see www.cadw.wales.gov.uk). The Welsh Assembly Government Marine Consents Unit (WAGMCU) took over responsibility for marine licensing from the 1st April 2010 (<http://wales.gov.uk/topics/environmentcountryside/consmanagement/marinefisheries/lic>

[encing/?lang=en](#)). At the time of writing this report there were no documents available to download directly from the WAGMCU website.

One example of a response from the MMO for a harbour development which includes a heritage component was available from the MMO website and relates to Holyhead in Wales. This was for a scoping opinion on the project and predated the WAGMCU taking over responsibility for licensing (see Appendix 9.4.3 for details).

Further details on the marine consenting process in Wales were provided by Deanna Groom at the RCAHMW who outlined that:

“Cadw is the Welsh Government’s historic environment service and their advisor with regard to historic environment issues. Akin to English Heritage, they perform the role of ‘offshore’ curator directly advising the Welsh Government’s Marine Consents Unit (MCU) and participating in the Infrastructure Planning Committee’s Offshore Consenting Forum. For the Welsh system of marine licencing, Cadw act as the focal point gathering comments with regard to marine licence applications from other heritage bodies such as the Welsh Trusts and the RCAHMW to respond with final advice to the MCU or Infrastructure Planning Committee. The requirement to archive copies of historic environment reports within the collections of the National Monuments Record of Wales is normally included as standard, as is good practice guidance notes developed by BMAPA, COWRIE and the Crown Estate for individual offshore industries. How the archiving requirement translates into a clause in a Welsh Government marine consent is subject to liaison between Cadw and MCU. The RCAHMW, RCAHMS, English Heritage and the ADS have recently undertaken a pilot project, funded by the Marine Environmental Data and Information Network (MEDIN) to extend OASiS coverage to Wales. The RCAHMW has requested that the present OASiS interface be developed to improve the capture of a metadata for archive material ready to be deposited at the time of the submission of the .pdf report to be made available online. It is anticipated that this will provide an initial indication to NMRW archive staff of the scope and quantity of material likely to be deposited, so that discussion with the depositor can be initiated and project specific archive guidance be given.”

2.3.4 Northern Ireland

The Northern Ireland Environment Agency (NIEA) is part of the Department of Environment (DoE) within the Northern Ireland Government. Within the NIEA the *Built Heritage Directorate* has responsibility for the management of the historic environment.

Northern Ireland is included in the UK Marine and Coastal Access Act for the provisions relating to the Marine Policy Statement, marine planning in Northern Ireland's offshore area (from the 12 nautical mile limit to the boundary of the Northern Ireland zone) and the reform of marine licensing insofar as it relates to the Food and Environment Protection Act 1985 and marine aggregates extraction (http://www.doeni.gov.uk/index/protect_the_environment/water/marine_bill.htm).

However there is a proposal for a Northern Ireland Marine Bill which is currently under consultation. This will contain provisions for marine planning and marine nature conservation within Northern Ireland's territorial waters (within the 12 nautical mile limit) and subject to discussions with the other Government Departments may contain provisions for further streamlining of licensing for devolved functions.

2.3.5 Review of Conditions on Consents

The review of sample conditions of consent imposed by regulators has been based on summary documents which are publicly available. The following issues and/ or observations were made during the review:

- Language used by the heritage curators is sometimes clear for other heritage practitioners, but may not be as readily understandable to regulators who are translating this into conditions on consent.
- There are some situations where recommendations are put forward in a manner that makes them sound optional, rather than that they should be undertaken to be within established best practice.
- There are no examples where archive materials from archaeological investigations are specifically mentioned. However, there are some occasions where publication is mentioned.
- In some cases, comparison of recommendations from other statutory consultees reveals that there is disparity in the language used. The most clear conditions state that ‘The licence holder must.....’. If such definite language is used in the response from the statutory consultee it appears that it is more likely to be translated in the conditions by the regulator.
- It is acknowledged that conditions on consent are ‘high level’ and often refer to supporting documentation or processes such as Environmental Statements or Appraisals that are expected to be undertaken. Mention of these processes should assume that best practice is being followed, but there are often no further indications of whether this is being monitored.
- There is disparity in the wording of heritage conditions.
- There are large differences in the amount of detail provided related to heritage within the formal conditions.

There is an interesting comparison between the example ‘conditions on consent’ as provided by the heritage curators and how these may have been translated into the example licence conditions available from the regulators.

It should be noted that in 2010 TCE supported the publication of *Model Clauses for Archaeological Written Schemes of Investigation: Offshore renewables projects*. While this document is not specifically related to the setting or wording of conditions on consents its contents are likely to provide guidance to ensure the delivery of conditions through appropriate Written Schemes of Investigation (WSI) clauses. While aimed at the renewables sector, it is likely that this document will have an impact on WSI clauses and production for marine development more widely.

2.4 Monitoring of Conditions on Consent

The imposing of conditions on consents for development can only be effective if compliance with these conditions is monitored. The responsibility for monitoring, particularly in England, was one of the areas highlighted during the SFMAA project as being particularly unclear. As outlined in Section 2.2, discussion with TCE revealed that they expect the heritage agencies to be monitoring conditions related to heritage. Iain Mills pointed out that the current situation where conditions are being imposed but there

is no structure in place for monitoring is an interesting analogy to environmental conditions ten years ago.

Each of the heritage curators were asked who monitors that reports and/ or archives from development control projects have been deposited. The responses included:

English Heritage: “The NHRE will record reports through OASIS, with local authority archaeological services dealing with archives deposited with 'local' museums and EH with deposits made with national museum bodies”.

This response is slightly unclear in terms of direct responsibilities for monitoring specific conditions and also how this is fed back to the regulators. The MMO have established a system of monitoring, however, the exact treatment of archaeological consents is slightly unclear as it is yet to be fully tested. The MMO were able to provide the following information on monitoring (Jeremy Evans pers comm.: 18 Aug 2011):

How do you monitor archaeological conditions on consents?

‘As with all conditions put on licences, if we hear that archaeological conditions are being broken, we will work with English Heritage to bring them back into compliance through awareness raising, using our coastal officers in serious circumstances’.

How do you know when the archives from archaeological investigations have been deposited within a public museum or repository?

‘We do not have jurisdiction regarding this, but would work with marine developers through awareness raising to encourage them to deposit these. This is English Heritage’s responsibility’.

Further comment from English Heritage (6th March 2012) stated: “In reference to the need for clarity in terms of responsibility for monitoring compliance of conditions between the heritage curators and regulators. Whilst we feel that it remains the responsibility of the regulator to monitor compliance with all conditions on a Marine Licence (a position supported by colleagues in Historic Scotland - see below), we accept that the best way to action this will be for EH to work closely with MMO to further compliance with archaeological conditions”.

Historic Scotland: This is an area that is still developing due to the new marine licencing system. HS outlined that it would be up to the Marine Scotland licensing team to follow up conditions on licences, but it is likely to fall to HS and RCAHMS to “keep an eye as to whether the system is working, or not” (Philip Robertson, *pers comm.*).

Monitoring of conditions on consents is clearly a developing area. The new marine licensing systems are still in the process of being fully established in terms of their application in practice.

2.5 Impacts on Archives

The system of marine consents, associated conditions and monitoring is a developing area. There are a number of examples where policy and practice are being established and adhered to with a positive outcome for any associated archaeological archives. In

particular in Scotland and Wales where the repositories for deposition of archives is clearly established the conditions can often be more definite.

At present, the requirements for archiving within conditions for England are not explicit. The need to deposit a copy of a report with the NMR [now NRHE] and OASIS forms should ensure that work, and the archive on which the report is based, will be signposted. However, it does not ensure that the full archive is deposited in a public facility. This is a particular problem in England where there is no established system for a museum, network of museums or a specialist marine archive centre to cover the marine zone. As noted previously, this lack of an established system is likely to be affecting the conditions suggested for consents if it is known there is no public archive available. While in practice it is sometimes possible to negotiate for individual archives to be taken by coastal museums this is an '*ad hoc*' situation which is not ensuring adequate care of marine archives. This is an acknowledged problem, and there are a number of developments in this area ongoing, in particular studies and reviews in relation to establishing digital archiving facilities for marine heritage (Maritime Archaeology Ltd 2011) and also proposals for developing marine archive capacity for England (Satchell & Ransley, forthcoming). However, the development of a solution to this problem is likely to be a number of years off.

Although the specific mention of archives within conditions is not frequent there is often reference to established guidance and best practice, which should, if followed, result in deposition of archives in public repositories. There are an increasing number of guidance and best practice documents aimed at different marine development sectors. These are helping to raise the profile of archaeology and the historic environment in the marine zone and their treatment within environmental assessment and development processes. These include UK wide general documents and industry specific guidance, key examples being:

- BMAPA/ EH Marine Aggregate Dredging and the Historic Environment: Guidance Note (2003)
- BMAPA Protocol for Reporting Finds of Archaeological Interest (2005)
- Joint Nautical Archaeology Policy Committee Code of Practice for Seabed Development (2006)
- COWRIE Historic Environment Guidance for the Offshore Renewables Sector (2007)
- Protocol for Archaeological Discoveries: Offshore Renewables Projects (2010)
- Model Clauses for Archaeological Written Schemes of Investigation: Offshore Renewables (2010)

Protocols for reporting discoveries – aggregates and renewables – are primarily focused on recording objects and ensuring a record of their discovery is completed and added to national databases. One area which is still in development in relation to the reporting Protocols is the deposition of any finds (for aggregates this is explored further in section 4 of this report). The Protocol for renewables discoveries has only one specific mention of archives:

5.7.1 The Implementation Service will make arrangements for the Developer to hold in possession any recovered finds, subject – in the case of wreck – to agreement with the

Receiver of Wreck. The subsequent handling, retention or disposal of finds will be subject to applicable law and to arrangements between the Developer and the institution receiving the archaeological archive arising from the scheme.

This highlights that finds must be handled in relation to appropriate legislation and it places the onus on the developer to be liaising with an archive repository.

The Model Clauses for Archaeological Written Schemes of Investigation goes further in outlining best practice for archaeological archives. It states that one of the key objectives of a WSI is to:

“Establish the reporting, publication, conservation and archiving requirements for the archaeological works undertaken in the course of the scheme”(2010: 5).

Further detail is provided within Chapter 2 of that document *Archaeological Recording, Reporting, Data Management and Archiving*. Guidance is provided on best practice in terms of identifying a suitable archive. However, the document does assume that an archive can be arranged, whereas this is not always possible if there is no museum willing or able to take archives from offshore development. In general this document provides more specific detail on WSIs related to marine development than has previously been available and it is expected to enhance the cultural heritage approach during the expansion of offshore renewables. Future conditions on consents for renewables are likely to reference this available guidance.

2.6 Recommendations

Although it is a time of change in terms of roles and responsibilities in the marine zone there are a number of actions which would help to ensure that archives from archaeological investigations reach public repositories. These include:

- The need for clarity in terms of responsibility for monitoring compliance of conditions between the heritage curators and regulators. This needs to be communicated to developers/ licence applicants, but also to the archaeological sector.
- In the present licence system it is the responsibility of the developer to provide information to the regulator. Although the developer may have contracted archaeological advice it may not always be clear when this archaeological advice and/ or input is required. Development of information for marine developers – or anyone who applies for a licence that may impact on cultural heritage – should be developed; this should specifically mention archives and the importance of making these publicly available and secure for the long-term.
- Where works also require permission and/ or licensing by TCE there may be scope to provide specific clauses relating to the archiving of data, information and objects resulting from investigations.
- Lack of clarity in the system means that there are no clear lines to follow in terms of highlighting when conditions of consent have not been met. Without this it is impossible to ‘police’ the system. Once responsibilities have been clearly outlined in terms of monitoring then there must be a feedback system to enable those not fulfilling conditions to be penalised.
- A lack of effective monitoring and hence archive deposition means it is difficult to locate project archives which may be relevant to other work. When projects are

archived and signposted efficiently this data can be used to inform a range of further work whether related to development control or research. Raising awareness of archives and having access to them can save time and money for developers, contractors, government organisations and researchers.

3. Archive Deposition within the Current System

This element of the project has involved research to provide more information on the volumes of archive from development control projects that are reaching National Monument Records and other national repositories. The aim has been to attempt to compare the levels of archive with the known levels of development that has been undertaken in the marine zone.

To support understanding of how the National Monument Records (NMRs) are transferring information from reports from development control related projects into the monument record a number of survey questions were developed. These results have been used to develop potential recommendations for ways to improve the current situation. (It should be noted that the term NMRs is used in this report to refer collectively to the heritage databases of the devolved nations, each individual database is referred to using its relevant title/ acronym).

3.1 Methodology

Data gathering in support of this element of the project included survey questions for National Monuments Records held by the devolved nations and direct contact with the Archaeology Data Service (ADS). Further research was undertaken to develop understanding of the levels of marine development to compare to known records of archaeological work and associated archive.

The NMRs managing marine heritage data around the UK are:

- England – National Record of the Historic Environment (NRHE), formerly known as the National Monument Record (NMR) (NMR is now being used as a brand name for material within the archive)
- Wales – The Royal Commission for the Ancient and Historical Monuments of Wales (RCAHMW)
- Scotland - The Royal Commission for the Ancient and Historical Monuments of Scotland (RCAHMS)
- Northern Ireland – the database held by the Northern Ireland Environment Agency (NIEA) Build Heritage Directorate is known as the Northern Ireland Sites and Monuments Record (NISMR). This database does not hold maritime data - this is maintained in partnership with the Centre for Maritime Archaeology (CMA) at the University of Ulster

Further information on these organisations is available in Appendix 9.2.

The NMRs were asked:

- Are you able to provide a list of all marine development control projects (and/or data derived from them) recorded on the database? This data will be used to attempt to compare the number of marine development control projects known to have been undertaken with the number of records of archaeological assessments/ interventions recorded on national databases.
- How is data from EIA reports being translated into databases? E.g Do individual anomalies picked up during geophysics get an entry?
- Are boreholes and geotechnical samples recorded? If yes, how?
- How are submerged prehistoric landscape features such as palaeochannels recorded?

Direct email responses to the questions were provided by English Heritage, RCAHMW and Northern Ireland. The ADS provided data in relation to OASIS reports that had been submitted.

Information on levels of marine development was gained through the review of numbers of applications for marine licences from data available from the Marine Management Organisation (England) and Marine Scotland. The Marine Consents Unit (Wales) does not currently make this data available online. Information for licence applications in Northern Ireland was supplied by the Centre for Maritime Archaeology, Ulster.

During the course of the project it became clear that it would not be possible to directly compare the numbers of development projects with the data available from the NMRs. This was due to difficulties in establishing levels of detail on development projects prior to April 2010 and also due to the way in which the NMRs are either recording data and/or the low levels of reports from marine development control that are reaching the NMRs. To provide information on how information from marine development could be recorded within the NMRs details of the numbers and types of sites currently on the NMR databases were reviewed. This data was compiled from available online heritage databases and email correspondence.

3.2 Levels of Marine Development Around the UK

The key types of development and activities requiring licensing around the UK are:

- Aggregates extraction
- Renewables developments
- Port and harbour works
- Cables and pipelines
- Coastal protection
- Sea disposal/ dumping

Many of these activities require licence consent through one or more of the following:

- Environmental Impact Assessment and Natural Habitats (Extraction of Minerals by Marine Dredging) (England and Northern Ireland) Regulations 2007
- Food and Environment Protection Act 1985 Part II (Deposits in the Sea)
- Coast Protection Act 1949
- Telecommunications Act 1984

- Harbour Works (Assessment of Environmental Impacts) 1999
- Marine and Coastal Access Act 2009
- Marine Scotland Act 2010

The SFMAA project considered the distribution of various types of development and use of marine resources (see HWTMA 2009c, Section 5.3 pages 25 – 32). It also reviewed likely increases in work in the future. Information from the report, in addition to further research, has been used to develop the following summaries of development activity and licensing.

England

The use of the marine environment and marine resources around England is relatively intensive. Most of the marine aggregate licensing areas lie off the English coast, in addition to the majority of the Round One and Two wind farm areas. In terms of ports and harbours there are a number of major international ports plus a wide range of smaller ports and harbours. Although mostly beyond territorial waters, the southern North Sea has an extensive range of installations and pipelines related to gas extraction. These activities add up to a marine zone that is under intensive use.

For England it is possible to get an idea of the number of licences for marine development applied for as the MMO have an online archive of all applications made since April 2011. Information on marine licences can be downloaded and includes ‘pre-applications’, ‘applications’ and ‘issued’. Due to the large number of documents only the ‘applications’ were reviewed briefly to gain an approximate count of the number received; this resulted in 137 applications. Some of these were for relatively minor schemes whereas others were for major renewables or aggregate related work. EH were asked approximately what percentage of applications they review might have archaeological conditions recommended, Chris Pater indicated that it is around 25% (pers comm.: 16 Aug 2011).

Scotland

Levels of marine development around Scotland have not been very intensive although this is now increasing through offshore wind and marine renewables. In 2009 Philip Robertson of Historic Scotland outlined that ‘Where developer funded projects are concerned – I am aware of sporadic projects across Scotland – mostly involving desk based assessments – followed up by geophysics and some diver-based/ROV evaluation.....I am uncertain about what has happened with the developer funded project archives as HS has limited involvement at present in this area of work – i.e. the conditions attached to work in Shetland under Zetland Act 1974 works licensing provisions will be the responsibility of Shetland Council’.

The passing of the Marine Scotland Act (2010) means this situation has now changed with Historic Scotland providing suggested conditions on consents for the marine licensing process. Marine Scotland make available via a public register all the marine licence applications and related decisions through their website: <http://www.scotland.gov.uk/Topics/marine/Licensing/marine/register>. Information is

available for the period April 2011 – August 2011. A brief review of these documents was undertaken to count the number of applications made and consents given, and this resulted in 118 applications made and 133 consents given. These include a wide range of marine activities, many of which will not have any impact on cultural heritage. The numbers serve to illustrate the levels of application and consent activity.

Wales

Similar to the situation in Scotland, marine development activity is growing around the Welsh coast. Following the Marine and Coastal Access Act 2009 the Welsh Assembly Government established their Marine Consents Unit which has responsibility for licensing. The MCU has not made available summaries of applications or decisions on their website

<http://wales.gov.uk/topics/environmentcountryside/consmanagement/marinefisheries/licensing/?lang=en>

The MCU were contacted by email for further information on applications, but no response was forthcoming.

Northern Ireland

The levels of marine development off Northern Ireland are not high. There are no aggregate areas or wind farm developments off the coast, with most works related to the construction of coastal and harbour works, cables, pipelines, dredging (capital and maintenance) and dumping.

For Northern Ireland, Kieran Westley of the Centre for Maritime Archaeology Ulster was able to provide a list of all FEPA licence applications between 1997 and 2010. 192 FEPA applications are recorded during this 13 year period. Of these 116 did not require mitigation measures, 6 were of unknown status and the remaining 70 required mitigation.

3.3 Information from Development Control Projects and National Monument Records

Although levels of marine development have been increasing with large volumes of aggregate extraction, expansion of the renewables sector and some major port and harbour developments, information derived from associated archaeological investigations is not always reaching the national heritage databases.

3.3.1 England

English Heritage were not able to provide numbers of development control projects that have been recorded within the database. Martin Newman (pers comm.: 15 Aug 2011) outlined that the number of maritime heritage recording events in the NRHE is currently very limited. They have recently undertaken a project in conjunction with MEDIN, the RCAHMS and the RCAHMW to look at issues of creating records of all marine historic environment recording events that have taken place using projects reported through OASIS (See Section 3.3.5). The project considers the levels of recording of maritime events, the types of events, and how these may be improved in the future (Komar 2011). This highlights one of the positive responses to increased focus on the need for archiving and sign posting of marine work and events, the project was undertaken during the

MATCE project and the final report was made available just prior to finalising this report.

3.3.2 Scotland

RCAHMS did not provide information on development control projects represented within the database. However, the practice of event recording is well established. In general the archive situation in Scotland is more clear in terms of where material should be deposited and the RCAHMS have extensive information and instruction for those depositing material with them. As outlined within the SFMAA project the Scottish Government has supported the MEDIN to encourage better data management across the marine sector. In return, Historic Scotland and RCAHMS have agreed to sign up to MEDIN data archiving principles and are working towards MEDIN Digital Archive Centre (DAC) status.

3.3.3 Wales

Only two offshore development control projects are currently noted as having submitted environmental impact assessments for archiving within the National Monuments Record of Wales:

- Area 486 Marine Aggregates Area
- Rhyl Flats Offshore Windfarm

To date these are the only reports that have been received from archaeological contractors/ developers. However, the RCAHMS is aware of several offshore developments for which no historic environment reports have yet been received.

Deanna Groom suggested that one of the potential hurdles is that developers are not being presented with responses to tenders for historic environment services that include archive preparation at the outset. As a consequence, archaeological consultancies may have no funding after a programme of work has completed to pay for staff time and materials to prepare archives for deposition.

Arguments have been put forward for the commercial sensitivity of some of the data, e.g. a developer may be concerned about placing data in the public domain when it might be accessed by a rival company. However, once an EA has been prepared and sent to the various statutory consultees to allow their advice to MCU to be formulated, it is then, to a certain extent, already in the public domain. The RCAHMS has the ability to hold material for specified period before accessioning to the National Monuments Record of Wales collections, if a developer's concern over commercial sensitivity is great.

3.3.4 Northern Ireland

The levels of information provided in relation to the FEPA licensing situation came via the response from Kieran Westley, as outlined in section 3.2. - in the past 13 years there have only been 70 instances requiring archaeological conditions. However, the system whereby the applications are reviewed in relation to heritage seems well established.

Kieran Westley outlined that ‘The results of assessments are kept on file together with the original application, which are in turn filed geographically. Full copies of the assessments along with the application should be held at NIEA: Built Heritage’ (pers comm.: 17 Dec 2010).

The Centre for Maritime Archaeology (University of Ulster) hold full copies of some assessments and partial copies of others. In terms of the information contained within the assessments this does not currently get transferred into separate databases.

3.3.5 Use of the OASIS System

The OASIS system - Online accesS to the Index of archaeological investigations – is established for England and Scotland. As stated on the OASIS website (<http://oasis.ac.uk/england/>):

“The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork and a similar increase in fieldwork undertaken by volunteers. As part of this overall vision, the OASIS data capture form has been designed to help in the flow of information from data producers, such as contracting units and community groups, through to local and national data managers, such as SMRs and NMRs. The resulting information will be validated by the relevant NMR and passed onto the ADS for inclusion in its online catalogue [ArchSearch](#). The inclusion of information in ArchSearch will enable users to search for the latest information pertaining to a particular site, type of monument and so on and either provides direct web links through to the grey literature reports or at least act as a pointer to the physical holding place of a report or archive. Grey literature reports are also being made available directly through the ADS [Library](#), where it will be possible to search and retrieve reports based on a variety of different data fields. It is hoped that the OASIS project will facilitate the rapid flow of information from producer to user.”

The ability to record maritime projects within OASIS was developed later than the establishment of the system. Catherine Hardman from the Archaeology Data Service stated: “the maritime section of the form only covered England and Scotland from August 2008 and then there was a hiatus as people started to put OASIS conditions into briefs for maritime work”. It is known that some maritime projects were recorded with OASIS prior to 2008, however, these would be linked to the nearest terrestrial area to the work/ development.

Catherine provided data on all maritime records held within OASIS on the 22nd July 2010. Due to the relatively rapidly changing situation with marine data a further request for information was made in August 2011 just prior to project completion. This has allowed comparison of the numbers of marine OASIS records being submitted.

Maritime records submitted as of 22nd July 2010:
England – 11 records. Of these records

3 were related to development control projects (2 for wind farms, 1 for aggregates)

4 were related to submerged landscape research projects

2 were wreck research projects

1 was a seascapes characterisation project

1 an avocational research project on a submerged quarry

Scotland – 1 record of an avocational research project on an 18th century wreck off the Outer Hebrides.

Maritime Records submitted as of 9th August 2011:

There had been 126 Marine OASIS forms completed. These included:

England – 59 reports

Scotland – 45 reports

Wales – 22 reports

The seemingly large increase in OASIS forms completed has been aided by a backlog project that was undertaken by the heritage agencies as part of a MEDIN project (Komar 2011). This resulted in a number of past older projects being entered as records, particularly those relating to protected wreck sites. The number of marine development projects such as work undertaken ahead of aggregate dredging, wind farms and port developments are still relatively small in number.

Discussions are currently ongoing about the possible extension of OASIS to cover Wales following a pilot project recording maritime events in Wales which resulted in the examples within the dataset provided in August 2011.

While there is clearly room for improvement in the number of marine development projects resulting in OASIS forms being completed it is encouraging that the numbers completed have risen significantly in the last year. The engagement of the devolved nation heritage databases in the testing and developing of the system should ensure that greater numbers of OASIS reports are transferred into the NMRs.

3.4 Incorporation of Data from Investigations into the NMRs

When reports from development control work reach the NMRs the data has to be reviewed by those curating the historic environment record and any new data or updates added to the system. The survey of NMRs and English Heritage sought to understand how data from such reports was being utilised and translated. When it became clear that the numbers of reports reaching the NMRs from development control projects was not large the review then considered how different types of data were recorded.

3.4.1 Data/ File Types and Translating into NMRs

The data holdings of the various NMRs appear to differ based on whether the devolved nation NMR or heritage agency also offers full, integrated archiving facilities. For instance, both Scotland and Wales will archive all data, whereas the English Heritage at

present only asks for a copy of the final project report for development control related work. The levels of work around the coast of England have been much more intensive than the other devolved nations, so the scale of the associated archive is much greater.

It should be noted that during the period of project research there have been, and are currently ongoing, a number of projects which are specifically reviewing digital data archiving and the development of capacity for NMRs to act as MEDIN accredited Heritage Digital Archive Centre (Wessex Archaeology 2010; McKeague 2010; Maritime Archaeology Ltd 2011). These have helped progress planning and development of the heritage systems to better support the archiving of digital data.

Wales

The RCAHMW outlined that they are being more specific in what data they are state as being of interest. We ask for copies of reports in .pdf form and as well as GIS point data drawing on the databases that have been created from reviews of marine geophysics and hence used to create report gazetteers. Receiving data in digital format means it can be manipulated to ease inclusion in the NMRW, rather than having to be rekeyed from site information within the .pdf report. There is likely to be a need for NMRW staff to review and further edit each record before it is passed through to the online versions of NMRW database (Coflein).

The Welsh online database version of Coflein accessing monument data is via mapping which uses as its basis OS mapping and at present the marine area is a plain blue area beyond the edge of the OS tiles. It is hoped to be able to provide a newer version of Coflein to provide better offshore mapping in the future (<http://jura.rcahms.gov.uk/COFLEIN/Map>).

Northern Ireland

The results of marine development control assessments and investigations are kept on file together with the original application, which are in turn filed geographically. As the Centre for Maritime Archaeology maintain the maritime database they sometimes only have partial records of assessment data, however, full copies of all assessments and applications would be held at the NIEA: Built Heritage. At present the information contained within assessments does not currently get transferred into separate databases.

To date there have not been any finds that indicated the presence of verifiable wrecks or submerged prehistoric landscapes. Most finds made through development control so far have tended to be 20th century debris. One exception to this was an 18th century anchor dredged from Warrenpoint Harbour, but there was no other evidence of associated wreckage. This information is not yet included in the maritime record.

Scotland

The RCAHMS have a well developed heritage database system which is available online – Canmore <http://www.rcahms.gov.uk/canmore.html>. Additionally, RCAHMS make available guidance for those intending to deposit archive: documents include ‘Guidelines

for Archiving of Archaeological Projects’, ‘Archiving Information Form’, ‘Deposition Agreement’ and a ‘Digital File Information Form’.

RCAHMS are familiar with the wide range of data types generated in the marine zone and will archive raw and processed data sets. In terms of ‘reworked’ data from DBAs they expect that project archives would include all information collated from multiple sources.

England

English Heritage currently do not have specific guidance available for the deposition of data from the marine zone as they do not expect to be archiving other than final reports. The only digital ‘archive’ that the NRHE holds is some data from the Protected Wreck Sites. In general the NRHE tends to use data and associated reports that are ‘deposited’ on OASIS, and also through information through the BMAPA Protocol and from the RoW.

If copies of full reports reach the NRHE they record information on individual sites.

As mentioned above the project *MEDIN Maritime Events Project* (Komar 2011) sought to review the recording of maritime event data within the NMRs, the results of this project are helping improve how maritime data is recorded and signposted.

3.4.2 Wrecks and Anomalies

Shipwrecks are by far the most common site type recorded within maritime NMRs, and include known sites, casualties and recorded losses (often referred to as named location NLOs). A NLO point can often represent a high number of recorded losses. Anomalies are also frequently recorded, these are often derived from geophysical surveys. The sites of crashed aircraft also feature within the NMRs. A review of the numbers of each type of site in the NMRs provides the following information:

<i>Site type</i>	England	Wales	Scotland	Northern Ireland
<i>Shipwrecks</i>	6,095	1,723	1,620	282 (wrecks & aircraft)
<i>Ship Losses & casualties</i>	30,980	3,455	17,566	2,747
<i>Aircraft crash sites</i>	1,530	200	635	Recorded under ‘wrecks’
<i>Anomalies/ net snags etc</i>	7,009	56	Not systematically recorded	100+
<i>Other</i>		150 (named locations and seascape features)		

The NMRs were asked how they translate information from development control projects on wrecks and anomalies into the NMR. Some provided further details:

Wales – indicated they go through the gazetteers of development control reports and pick out the wrecks and anomalies. Corresponding records in the NMRW are then created or upgraded.

England – individual anomalies, sites and events are recorded in the NRHE if the information/ report reaches the English Heritage.

3.4.3 Boreholes and Geotechnical Data

Boreholes, geotechnical data and samples are often reviewed as part of the archaeological assessment process. Although samples may not have been specifically gathered for archaeology they are important in the interpretation of the seabed environment (which can affect how shipwrecks are preserved) and the sub seabed environment which can contain evidence of submerged prehistoric landscapes. A review of the data holdings of the NMRs revealed:

England	There are no borehole or geotechnical records in the events component of the NRHE
Wales	No boreholes or geotechnical data yet recorded.
Scotland	No geotechnical records available
Northern Ireland	50+ geotechnical records. Includes log sheets of samples and descriptions.

The practice of how borehole and geotechnical data is kept within historic environment databases is a developing area. Each NMR was asked for further information on how this data from the marine zone was recorded.

Wales – The NMRW would record borehole data where cores have been archaeologically assessed and confirmed as containing deposits with archaeological potential. The archaeological assessment of a core would be recorded as an event record, linked to a bibliographic record for the report from the archaeological assessment, linked to a record site primarily noting the depth of the deposit below the seabed, its character and the results of the scientific analysis for plant, faunal and anthropogenic remains.

Northern Ireland – The NI database has the capacity to record boreholes and geotechnical data. The records they hold within the database are derived from the Irish Relative Sea Level database. Detail of the geotechnical records mention that the logs of samples and recorded properties are included within ‘detailed description of content’ of the archive.

England – The NRHE does not record borehole or geotechnical data, it was highlighted that non archaeological investigations are covered by the MEDIN Digital Archiving Centre run by the British Geological Survey.

Scotland – currently does not record borehole or geotechnical data.

3.4.4 Submerged Landscapes

There is considerable interest in how to best record ‘landscapes’ in NMRs/Historic Environment Records (HERs). As this is a developing area of study there is increasing

pressure to develop how these features and associated finds and samples are recorded. A review of the NMRs demonstrated:

England	12 records, precise locations
Wales	The digitised landscapes features and landscape character areas identified by the University of Birmingham during the West Coast Palaeolandscapes Project are archived within the collections of the NMRW. The NMRW and Welsh regional HERs also include records for intertidal peats and submerged forests around the coast of Wales.
Scotland	>5
Northern Ireland	32 mostly intertidal and submerged peats – info derived from Irish RSL database, published literature and reports

More specific information was provided by some of the NMRs in relation to how they record submerged landscapes.

Wales – a centre point for the landscape feature has to be generated to allow the record to be incorporated into NMRW. Ideally, the record would be linked to a shapefile suggesting extent (where known). It is recognised that the effective mapping of these features is increasing with the availability of 3D digital seismic data, but still in its infancy. The method presently adopted by the NMRW for the West Coast Palaeolandscapes Project data is to create a centre point co-ordinate for the record and include in the record brief description of feature and the bibliographic/collections source for the digital data. Then, to create and have available as a collections item attached to the online record via Coflien, a .pdf document which contains a map placing the feature in its geographical spatial context; a image of the feature as seen in the seismic data; and a repeat of brief description of the feature (geological character and suggested extent).

England - Submerged palaeoenvironmental sites are recorded in the NRHE the same as archaeological sites.

3.5 Issues and Recommendations for Improving Data Archiving

Observations and issues from research have shown:

- The numbers of reports from development control related work reaching NMRs is low. The factors influencing this are varied across the devolved nations, however, they are most acute in England.
- This project has been undertaken at a time when approaches to digital data archiving from the marine zone are developing relatively rapidly, prompting discussion between NMRs and the commissioning of scoping studies to improve this situation.
- The NMRs recognise that there is a need to get the information flow from the development control process working. This is urgently needed to ensure the records are as useful as possible, and also in light of increased marine development pressures.

- How the various NMRs of the devolved nations ask for data appears to differ. Those such as Wales who are asking for detailed information are using this to aid efficient data transfer.
- The small number of reports from development control projects reaching the NMRs, particularly in England, demonstrates how the lack of monitoring of conditions on consents, in combination with no clear marine archive policies, means there is a 'missing link' in the system. This further reinforces the findings of the SFMAA project which discovered that archaeological contractors have a large backlog from development control related work residing on their shelves and computer systems.
- The lack of available archive repositories in England willing or able to collect from the marine zone is an issue that means developers could attempt to deposit archives, but if no suitable facility is found, they could fail to fulfil the conditions of their licence. This is a potentially serious issue that requires further examination to ensure archaeological archives have secure, long-term, care in accessible facilities.

Recommendations for Improvement

- The curators could be more specific within conditions of consent which are then being applied by the regulators, to specifically state that full project archives should be deposited within public repositories.
- It is slightly unclear when the NMRs first become aware of marine development control projects with archaeological conditions being undertaken. This may only be highlighted when OASIS reports are received, or they may be provided information as soon as a heritage curator has determined archaeological conditions are required. Greater communication within this process between curators reviewing applications and the NMRs who will ultimately take the archives should help establish the monitoring process more clearly.

In terms of TCE the key way this situation can be influenced to help greater deposition of archives and reports with NMRs would be to stipulate more clearly within conditions of any licences required from TCE about data and archiving.

Further impact could be made through supporting initiatives to help resolve the backlog of projects from development control work that are currently residing on contractors shelves. It is acknowledged that the responsibility for this situation having arisen lies with a wide range of agencies, organisations and contractors. However, unless it is tackled these resources of information will not be publicly available and remain at risk of loss.

4. Artefacts within Marine Aggregate Licensing

This part of the project focused on the fate of artefacts within the marine aggregate licensing process, particularly ownership and levels of public access to the material. Research involved investigating the fate of artefacts reported through the BMAPA Protocol, in addition to research with aggregate companies.

4.1 Methodology

Following review of the available BMAPA Protocol reports Wessex Archaeology (WA) were contacted to review issues related to finds ownership and access. This took the form of email questions and subsequent correspondence. WA were able to provide details of historic artefacts which had been found permanent homes whether in museums or for use in educational handling collections.

It became clear that although the BMAPA Protocol allows for the recording of data related to the finds, the objects themselves often do not leave the wharves or company offices (unless of particular significance). A follow up survey was developed for aggregate companies to try to determine the volumes of material that are being stored.

Survey questions sent out to aggregate companies were:

- Do you have artefacts stored at your offices or wharves which do not have a long-term home to be deposited in?
- When artefacts are wreck material the RoW will usually seek to place these in a Museum if possible (although it is acknowledged this can be difficult at the moment due to lack of museums with a role/remit to collect from offshore), if a Museum is not able to be found do you claim ownership of these items? If yes, what then happens to them?
- When non-wreck artefacts are recovered, do you claim ownership of these? If yes, what happens to them?
- The BMAPA Protocol report from 2008/09 indicates that discussions were ongoing about finding a long-term solution to storage and curation issues. Has there been any progress with this situation?

The response to emails was very low with only Hanson Aggregate Marine Ltd (HAML) providing a response. However, as one of the larger UK operators the data received was useful for gaining a feel for the fate of artefacts.

4.2 Artefacts and the Aggregate Licence Process

When an aggregate company is granted a licence for a particular area of seabed this includes all resources within it. In practice for archaeology this means that wreck material is still dealt with via the Receiver of Wreck through the Merchant Shipping Act 1995, but non wreck artefacts, such as prehistoric remains are owned by the aggregate company.

The Crown Estate were not able to provide an example of an aggregate licence to review the specific wording within them, however, it was stated that licences definitely do not mention archaeology or cultural heritage specifically. Iain Mills (TCE) confirmed that:

“It is correct that the ownership of non-wreck objects passes to the aggregate licence holder. It is acknowledged that this leads to problems with cultural heritage material. This is particularly a problem as a lot of aggregates are dredged from UK waters, but landed abroad, so the heritage is gone before it is sorted.

This is being reviewed at the moment by TCE and Ian Selby is talking to English Heritage about these issues”.

In practice most of the aggregate companies are members of BMAPA and are signed up to the Protocol for reporting finds of interest, so material should be reported through the established channels.

4.3 BMAPA Protocol

The BMAPA Protocol for Reporting Finds of Interest was published in 2005 and established a system of reporting discoveries from aggregate dredging off the coast of England. Through having a contracted archaeological unit (currently Wessex Archaeology), the aggregate companies have a direct contact which deals with the recording of finds, the companies have a system of site 'champions' who promote the scheme in addition to there being an associated awareness raising program. Full details of the Protocol are set out within the 2005 publication.

The Protocol has now been in place for 5 years and has had a very positive impact in terms of understanding the cultural heritage on the seabed within the aggregate zones. Each year a detailed annual report is produced which summaries the discoveries and includes full details of all objects recorded. Reports can be downloaded from: <http://www.wessexarch.co.uk/projects/marine/bmapa/docs.html>.

Over the five years that the Protocol has been in operation the number of reports and associated artefacts is impressive:

- 1st year of Protocol - 19 reports which included more than 80 finds
- 2nd year of Protocol - 30 reports which included 350 finds
- 3rd year of Protocol - 63 reports which included 162 finds
- 4th year of Protocol - 46 reports which included 109 finds
- 5th year of Protocol - 47 reports which included 84 finds
- 6th year of Protocol – 40 reports which included 49 finds

This provides a cumulative total of: 245 reports which included over 834 finds.

The Protocol scheme is providing detailed and comprehensive information on finds recoveries. Although the Annual Reports recognise that there are aspects of the scheme which could improve (e.g speed of reporting), they demonstrate how the scheme has been evolving with additions or changes being made to promote reporting and improve data gatherings (such as the inclusion of photographic scales).

There is no doubt that the Protocol is making a positive impact in terms of developing understanding of seabed heritage, however, there are questions over the archiving of the objects reported and their long-term care and curation.

4.4 Fate of Artefacts Reported

In order to review issues of ownership and public accessibility of the artefacts report, research was undertaken through contact with Wessex Archaeology and directly with aggregate companies.

Wessex Archaeology (Firth *pers comm.*: 10 Nov 2010) outlined that the Protocol is primarily a system to deal with information about discoveries rather than finds

themselves. The disposal of finds is outside of the Protocol. In practice, wreck is dealt with through the Receiver of Wreck through the normal Merchant Shipping Act (1995) arrangements.

“The Receiver tries to find places for the material to go - either museums or to teaching/handling collections - but otherwise when ownership is resolved it usually amounts to returning the material to the salvor (i.e. aggregate companies). They are then free to do what they wish. It seems that most of them hang on to it, and it is becoming a storage problem for them.

Finds which are not wreck are owned by the aggregate companies. Such finds form part of the seabed and come into the aggregate companies' ownership at the point the material is dredged. They actually change ownership as they go ashore, to become the property of the wharf (which may not be the same company). But in practice, the finds have tended to be held and owned by the BMAPA aggregate companies”.

Wessex Archaeology (Katie Card *pers comm.*: 25th Nov 2010) was able to provide information on the fate of a number of artefacts that had been provided by the RoW in support of a seminar held in October 2010 (BMAPA Annual Report 2010). As of October 2010 a list of dredge finds which the RoW had offered to museums showed:

25 droit reports submitted to the RoW, with a total of 31 artefacts included within these droits. Of these 31 artefacts the following outcome was reached:

Private Trusts/ museums:

Frinton and Walton Heritage Trust is a charity which promotes heritage related to this area of Essex. The Trust runs a Maritime Museum at Walton which also contains an archive facility. They have taken 3 objects as they originate from their area of interest.

HWTMA Education and Outreach Activity collection – 4 objects

New Forest Heritage Handling Collection – 6 objects

Wessex Archaeology Handling collection – 9 objects

Public Museum:

Isle of Wight Museums and Heritage Service – 1 object (a brass plate with inscription), although the IoW Museums Service had been offered further objects it appears they declined them as they have been added to the WA handling collection.

Returned to company in lieu of salvage:

Although a number of artefacts had been offered to museums they declined to take the objects which meant they were returned to the company in lieu of salvage. This was the case for 2 objects.

The rest of the artefacts listed are yet to have their fate decided; although they may have been offered to a museum the outcome is not confirmed yet. This applies to 6 objects.

Appendix 9.5 provides further detail of the individual finds and outcomes of deposition.

It should be noted that these finds are all wreck, and hence any prehistoric items reported are not included within this reporting process.

Katie also noted that:

“Many of the companies are also keen to retain their artefacts for display at their offices or the wharves to encourage staff to keep an eye out for finds. Many of them are very enthusiastic about the Protocol and genuinely interested in their finds and learning a bit more.”

As it appears that the majority of artefacts reported through the Protocol are returned to the aggregate companies in lieu of salvage this raised the issue of how the companies then chose to store or utilise them. To discover more a set of questions were developed for the aggregate companies (see 4.1).

The response from HAML (Emma Beagley *pers comm.*) to the survey of volumes of material held by companies indicated that:

“A box of finds is currently in the HAML office. This consists of one large crate plus some finds that are too large to fit in the crate.

Some finds will be used, along with a mammoth tusk (currently undergoing conservation) for a display at HAML office.

Due to the size of some finds or due to them not being very historically significant, some finds stay at the wharves where they were recovered. So, there are finds being stored at wharves as well as in the office.

HAML do claim ownership of finds that are sent to them through the RoW system. However, they take ownership by default rather than due to a particular desire to have the finds.

HAML puts the heritage value of finds first. If there were museums or archives willing to take the finds they are currently storing they would be happy for them to be donated”.

Southern North Sea Handaxes

<http://www.wessexarch.co.uk/projects/marine/bmapa/north-sea-handaxes/index.html>

One of the most significant reports through the BMAPA Protocol to date has been the discovery of 28 Palaeolithic hand axes and associated faunal remains from the Southern North Sea. These exceptional finds are demonstrating the archaeological potential of these prehistoric drowned landscapes. The finds were reported after having been landed in Holland from a HAML Marine Aggregate licence area (Area 240 off Great Yarmouth). The hand axes are owned by the finder Jan Meulmeester who found them on the wharf, they are being studied by the University of Leiden (Netherlands), it is unclear whether some of the hand axes have been donated to Norfolk Museum (Katie Card, *pers comm.*).

This example shows how the inclusion of the ownership of prehistoric finds within aggregate licencing makes the long-term fate of the material uncertain.

4.5 Public Access, Security and Implications for Research

The review of artefacts within marine aggregates licensing has raised a number of issues related to archives, particularly access to material and potential vulnerability if not deposited within a museum or repository. Issues highlighted include:

- There inclusion of ownership of non-wreck within the aggregate licensing means artefacts of potential regional, national or international importance are at risk of not being made available for public access and research.
- The BMAPA Protocol is having a very positive impact in terms of developing understanding of the seabed resource through reporting of objects and should be encouraged to be continued and developed.
- The fate of objects reported through the BMAPA Protocol is not clear. While some are donated to museums or handling collections, others fail to find publicly accessible homes and are returned to aggregate companies. This highlights the lack of museums or archive resource centres for the marine zone. Should such a facility be developed it may ease the problem of finding permanent public homes for artefacts, not only from aggregate related development but any marine development.
- Wessex Archaeology are putting forward a number of possible measures to help deal with the current situation of artefact backlog, many of which are residing with aggregate companies. These include highlighting the artefacts through articles in museums journals and press to try to interest repositories. Production of guidance on handling and disposal of artefacts for aggregate companies is also being considered.
- The detailed recording of objects through the Protocol is adding significantly to a variety of areas of research. However, if artefacts reported are not found long-term museum or archive centre homes then carrying out more detailed analysis in the future would be difficult, if not impossible, should the artefact be 'disposed' of.
- Although the aggregate companies are doing their best to care for the artefacts they hold and, in some cases, are proud to use them for displays, this situation does not provide the same level of curation and access that would be possible through a public museum.

4.6 Recommendations

There are a number of ways which The Crown Estate can contribute to finding solutions to issues raised in relation to artefacts within aggregate licences, these include:

- Undertake a review of how cultural heritage is dealt with in aggregate licences. The current system whereby ownership of non-wreck artefacts is passed to aggregate companies should be reviewed to ensure artefacts of local, regional, national and international importance are provided long-term homes in publicly accessible facilities. Although the ownership of non-wreck artefacts is regulated through the Merchant Shipping Act 1995, the current situation often means artefacts are returned to aggregate companies in lieu of salvage.
- Support efforts to find the most appropriate solution to developing archaeological archiving capacity for the marine zone (see HWTMA 2009a,b,c for further discussion of this; also Satchell & Ransley, forthcoming), through the development of a marine archive resource centre and/ or engagement of museums to increase the numbers of artefacts finding permanent publicly accessible homes.
- Support the continued operation of BMAPA Protocol which is making large amounts of information available for research, education and general public interest.
- Support further research to discover the extent of the numbers of artefacts which are currently residing with aggregate companies and/or stored on wharves.

- Work with heritage curators and developers to discuss issues related to archives which cannot currently be deposited due to lack of archive facilities, the implications for licence conditions and developing solutions.

5. Maritime Archaeology and Archives within Ports and Harbours

Understanding of requirements for cultural heritage within the offshore development sectors has increased significantly in recent years. This is due to the establishment of the EIA framework in the marine zone and also due to a number of relevant guidance and best practice documents (eg BMAPA 2003; COWRIE 2007). Closer to shore within ports and harbours, requirements for archaeology and cultural heritage are not always as well established or understood. This often appears to be the case for works that are not large enough to trigger a full scale EIA, harbour works undertaken within statutory powers, and also for developments which span the terrestrial and marine zone so may fall within the local authority planning framework or across planning regimes.

The ports, harbours and estuaries sector includes operations which vary widely in scale, from very small local rivers to large international ports. They can be managed in a variety of different ways with harbour or port authorities that are fully commercial (eg ABP Ports, Dover, Bristol, Felixstow, Aberdeen etc) or more community focused (eg Chichester Harbour Conservancy). There are two groups which represent the interests of ports, the Major Ports Association (www.ukmajorports.org.uk) and the British Ports Association (www.britishports.org.uk), between them they represent the spectrum from large ports to smaller harbours around the UK.

This element of the project reviews procedures and processes related to cultural heritage archives within ports and harbours with the aim of providing recommendations for possible improvements and/or guidance. The available guidance documents for this sector are reviewed, case studies are presented which highlight issues surrounding development and consideration of cultural heritage within management planning is reviewed through a selection of relevant plans and frameworks. This provides the evidence on which recommendations are put forward.

5.1 Methodology

Work for this section of the project has involved desk based and internet research combined with correspondence with key individuals and organisations. The review of Solent based port, harbour and estuary plans utilised the current HWTMA library in addition to internet resources. The review of a wider selection of plans from around the UK was undertaken to provide a broader assessment of the representation of heritage within these documents. A full list of documents consulted and summary notes can be found in Appendix 9.6. This work used internet research to locate individual plans, many of which are available to download as pdf files. Each plan was read with notes produced on any inclusion of cultural heritage and/ or the historic environment. Where appropriate, email questions have been sent to clarify specific issues.

Case studies have been presented based on author's experience, available published material and correspondence with archaeologists involved in the work.

5.2 Harbour Works, Cultural Heritage and Guidance Documents

This section outlines the responsibilities for development and harbour works and reviews the relevant available guidance documents. This provides the background context for the case studies of archaeological projects within ports and harbours.

5.2.1 Responsibilities for Development and Harbour Works

Many ports, harbours and estuaries are on borders between administrative and planning regimes. Large rivers and estuaries are often boundaries between counties or local authorities meaning planning frameworks can join each other, overlap or sometimes exclude areas. Additionally, these sites border the coast and hence span terrestrial and marine environments. This situation can lead to confusion over responsibilities for heritage input (curation) depending on whether local planning frameworks or national marine frameworks apply.

English Heritage (2006) summarise the responsibilities of Harbour Authorities:

“Port and harbour authorities have a responsibility (under section 48 of the Harbours Act 1964 as amended by the Transport and Works Act 1992) to consider the environment in their management of a port or harbour. This includes having regard to any building, site or object of archaeological, architectural or historic interest. However, the port authority (as distinguished from a commercial port operator) also has a statutory function to ensure safe navigation under their own enabling legislation (e.g. Port of London Act 1968) to raise and remove vessels sunk and likely to become an obstruction, impediment or danger to the safe and convenient navigation. In such instances English Heritage encourages early consultation and involvement and is able to offer advice on assessment and the practicalities of archaeological excavation” (EH 2006: 6).

This quote highlights one of the key areas where there is a lack of clarity over the treatment of cultural heritage – when vessels are removed due to being an obstruction or hazard to navigation. The requirement for heritage assessment and, if necessary, recording prior to removal may not be undertaken if there has been no consideration of heritage implications and contact with the relevant heritage curator (this is further discussed in the case studies below).

Other port, harbour and estuary works, if of a large enough scale, will trigger an EIA. The consideration of heritage within the EIA framework has developed considerably over the past decade and should ensure full assessment and mitigation where required. For smaller scale developments there is still likely to need to be a number of permissions gained by developers such as local authority permission, The Crown Estate consent and Harbour Authority consent. Whether a development is considered under the Local Planning Framework or the Marine Consents regime (or both) is likely to depend on the position of the site.

The establishment of the MMO in England has provided a focus for streamlining marine planning and consents. From 1st April 2010 the MMO has been responsible for harbour revision and empowerment orders under the 1964 Harbours Act. One of the reasons that a

Harbour Order may be required is to ‘Authorise a Harbour Authority to carry out works’ (MMO 2011: 4). The development of the new marine licensing regime is still in progress; it is hoped it will help provide more consistent heritage advice (provided by English Heritage) once fully established through guidance and application. This situation is mirrored in Scotland (Marine Scotland) and Wales (Marine Consents Unit) where Historic Scotland and Cadw suggest conditions on consents which are then applied by the regulator.

In terms of impacts on archives this situation where the planning framework used, and the archaeological curation (and hence conditions on consents applied) is inconsistent results in an uncertain outcome for archives. Some developments or harbour works may be required to have archaeological investigation and mitigation which results in an archive which is deposited within a public museum or repository, whereas others move ahead without any consideration of cultural heritage. Of particular concern are smaller works which may not be large enough to trigger a full EIA, however, the new marine licensing regimes should help ensure heritage is more consistently considered. When works which are further up estuaries, harbours or rivers and fall within the terrestrial planning framework it is less clear whether these will have heritage input.

5.2.2 Relevant Heritage Guidance Documents

This section considers documents of specific relevance for cultural heritage within ports, harbours and estuaries. Documents related to EIAs have not been included here as the inclusion of cultural heritage within this framework is relatively well established.

JNAPC ‘Maritime Cultural Heritage and Seabed Development: Code of Practice for Seabed Development’ 1995, (revised 2006)

This document was originally produced by the Joint Nautical Archaeology Policy Committee (JNAPC) due to a complete dearth of guidance for marine development and cultural heritage. Taking account of changes and development, the Code was revised (with support from The Crown Estate) in 2006. The Code sets out basic information on marine cultural heritage before presenting the ten point code which outlines the development process in terms of how cultural heritage should be considered. This code is ‘high level’ - it does not specifically include different industry sectors, but is applicable across all marine development. The document also contains a number of fact boxes and case studies to illustrate aspects such as relevant legislation and how to react to unexpected discoveries.

Point 10 of the code specifically addresses archives:

“10 Retrieved Archaeological Material

Issues of ownership and reporting can be complex so developers may need to seek advice prior to disturbing any artefacts on the seabed. Where archaeological material is disturbed and recovered as a result of development activities, agreements must be put in place for its long-term conservation and management. Developers and any archaeological consultants have a legal responsibility to report discoveries to the Receiver of Wreck, and must seek to deposit any artefacts and records in an appropriate museum as a complete permanent archive for future study. Specialist advice on the conservation of objects is essential and discussions with a suitable museum service should be part of the early planning of any investigation. Copies of all reports and publications must be sent to the relevant local Historic Environment Record and National

Monuments Record. Deposition of records allows public use of information relating to their heritage and can help develop education and public understanding, and provide practical demonstration of co-operation between private and public sectors”.

This point of the Code highlights responsibilities for archive deposition, the need for museum deposition as well as the likely need for specialist conservation.

If the code was followed within ports, harbours and estuaries then archaeological work should be undertaken when cultural heritage may be impacted, resulting in archives which are deposited within public museums and signposted through copies being made available to the HER and NMR. However, at present the code is not always applied, particularly for smaller scale works, which some may not consider as ‘development’.

English Heritage ‘Ports: the impact of development on the maritime historic environment’, 2006

Recognising the need for more specific information for ports and harbours, in May 2006 English Heritage published a guidance document *Ports: the impact of development on the maritime historic environment*. This document aims to “Inform developers and others about the importance and relevance of the historic environment in relation to ports, and how it must be taken into account in development proposals” (2006:2). The document was ‘offered at meetings with groups such as the UK Major Ports Group and the UK Harbour Masters’ Association and also at one-to-one meetings with various ports’ (Chris Pater, *pers comm.*).

The document includes information on what is included within the ‘maritime historic environment’, highlighting that it is not just shipwrecks, and includes marine, intertidal and coastal sites and landscapes. It summarises the applicable planning policy and documents although these have now been superseded with changes to terrestrial planning guidance and new Marine Licensing requirements. The planning framework and responsibilities are briefly included. The document stresses that the costs of works to mitigate the marine historic environment should be met by the developer and planned into any schemes. It recommends a pro-active approach to planning for heritage.

English Heritage’s role as curator is presented, stating that they are able to “offer advice on any areas of special interest that could be affected by the proposed development, and comment on their significance. We are able to offer advice on mitigation strategies, including investigation and recording” (2006: 4). A case study example of the Swash Channel Wreck is provided. EH were asked whether there were many cases of port and harbour authorities making early contact with them prior to works. Responses outlined that there had been ‘limited instances of ports making early contact with EH regarding removal of remains’ (Chris Pater, *pers comm.*).

While this document provides more specific detail for the ports sector than the JNAPC Code of Conduct, it does not provide extensive information or much variety of case studies to help establish the guidance through examples of practice. Archives produced from archaeological investigations are not mentioned in the guidance, although the

document does signpost the JNAPC Code which is quite clear on the need for deposition of archives.

Archaeological Guidance

In terms of archaeological standards and guidance there are a number of documents which would be applied to archaeological work if it was commissioned. The key standards and guidance are those produced by the Institute for Archaeologists (www.archaeologists.net). These are the 'industry standard' and are often the benchmark by which commissioned archaeological work is assessed.

Documentation produced for other industry sectors, namely the British Marine Aggregate Producers Association & English Heritage *Marine Aggregate Dredging and the Historic Environment Guidance Note* (2003) and COWRIE *Historic Environment Guidance for the Offshore Renewables Sector* (2007), provide more detail. They consider the framework and processes of development as well as the nature of cultural heritage that may be impacted by developments.

While the JNAPC Code provides high level principles and the EH 2006 document provides some specifics for port, harbour and estuary operators and authorities, they do not have as much detailed information as the other specific industry documents.

5.2.3 Archaeology in Ports & Harbours: Development Related Case Studies

The varying frameworks for the assessment of cultural heritage within ports, harbours and estuaries have resulted in divergent approaches in different circumstances. The application of archaeological principles in a number of different case studies is presented to provide more detailed context and to explore the impact on archaeological archives that were, or should have been, deposited following port and harbour works.

EIA Framework and Port Developments

Growth in marine transport and offshore industries over the past decade has resulted in a number of large commercial ports undertaking development which have involved EIAs. Many of the ports involved have made detailed information on the planning and development process available online, with some providing the full Environment Statements produced through the EIA process available. More recent EIA reports from a number of developments in England are made available from the Marine Management Organisation webpage.

Examples of available port EIA documents include:

Bristol Port: <http://dsct.bristolport.co.uk/environmental/environmental-statement>

Port of Dover: www.doverport.co.uk/assets/.../EIA%20Non%20Tech%20Summary.pdf

Falmouth Harbour Commissioners:

<http://www.falmouthport.co.uk/commercial/html/documents/FalmouthCruiseProjectES.pdf>

Poole Harbour Channel Deepening:

http://www.phc.co.uk/downloads/channeldeepening/es12_archaeology.pdf

Southampton Approach Channel Dredge:

<http://www.southamptonvts.co.uk/pinfo/DevelopmentProjects.htm>

The specific consideration of archaeology and cultural heritage within these documents has not been reviewed as part of this project. The accessibility of these documents is helping to develop best practice in relation to cultural heritage as it highlights its importance across the ports and harbours sector, providing case studies for those ports considering undertaking development work. This is also important in terms of archaeological curation as the heritage conditions suggested for development (and applied by regulators) are becoming more consistent. However, there are still issues related to the requirement for the deposition of archives from investigations (whether paper, object and/or digital) within public repositories (see Section 2 of this report).

Of particular note in terms of port development is the London Gateway project (<http://www.londongateway.com/>) which will result in a new deep-sea container port to the east of London. This work has involved archaeology on shore and in the marine zone. In particular, the large scale work in the marine zone and the number of sites which will be impacted by the development has required the development of approaches for the archaeological investigation of sites and for archiving of the results of this work. A popular publication produced in 2010 'London Gateway: A Maritime History' provides an overview of the sites investigated and the importance of heritage in relation to the development. In relation to archives from the investigation the booklet states:

“Despite the removal from the estuary of some of the archaeological evidence discussed here, it will be protected and preserved through the records that have been created throughout the course of ten years of intensive studies. The results of all the maritime research carried out for London Gateway is also being set out in a book devoted to the archaeology of the Thames” (DP World 2010).

It is encouraging to see the archive (records) from the investigations referenced within a popular publication. Further information on the approach to archiving, including receiving museum/s and the development of a discard policy has been gained through correspondence with Dr Antony Firth of Wessex Archaeology (WA). After negotiations the majority of material from the London Gateway will be deposited with Southend Museums Service (SMS). Working together SMS, WA, RoW, EH and London Gateway Port Ltd, advised by their Archaeological Liaison Officer, have developed a discard policy to be applied to the material archive (Wessex Archaeology 2011). The strategy outlines (based on practical experience with the archive), which materials will be discarded from the archive after they have been recorded and catalogued. The strategy is shaped by “The guiding principle, offered by SMS, is that material to be retained should offer the potential to inform researchers or raise the understanding and awareness of the public, both now and in the future” (WA 2011: 2). Detail within the strategy includes discard of material commonly found in maritime contexts – particularly small fragments of wood which have no distinguishing features, fragmentary or featureless concretions (after X-ray) etc.

This is one of the first formal approaches to discard on maritime archaeological sites that has been developed, particularly for such a large project. The issues related to the discard of archaeological material from any context whether terrestrial or marine are still being developed (for discussion of formulation of terrestrial archive 'selection and retention' approaches see minutes of the Archaeological Archive Forum –

<http://www.britarch.ac.uk/archives/#mins>). The London Gateway project has taken a proactive approach in this area and the method followed and resulting curated archive is likely to help shape the development of discussions and approaches within the profession.

Issues related to the long-term curation of large marine collections often refer to the large 'burden' of conservation and care, with many developers (and authorities) wary of the discovery and disturbance of marine sites. Increasingly examples of maritime site investigations are resulting in much more manageable sized archives, few shipwreck sites are as well preserved as the Mary Rose with many consisting of sections of ships and small associated artefact assemblages (although it should be noted that water logged wooden ship structure is commonly encountered). Gaining better understanding of the nature and character of marine archives not only aids the development of professional approaches to them, but also helps greater understanding by the ports and harbours sector who may impact them during development work.

Finds Discovered During Harbour Works

As mentioned above, the consideration of cultural heritage within smaller and/ or routine harbour works is less well established. The regulation of these activities is less clear than within the EIA regulations. The powers of Harbour Authorities to undertake removals if an 'obstruction' or 'vessel' is deemed a hazard to navigation is often exercised without heritage consideration, in fact these works do not require any consent comparable to planning permission (Auer & Firth 2007: 222).

The Princes Channel Wreck, later known as the 'Gresham Ship' was located in 2003 by the Port of London Authority when it registered as a magnetic anomaly during a hydrographic survey (<http://www.wessexarch.co.uk/projects/marine/thameswreck/discovery.html>). PLA operations used a grab and divers attempted to 'clear' the site raising a number of timbers and artefacts, at this stage archaeological advice was sought from Wessex Archaeology which began a series of recording and recovery operations. During 2004 a range of artefacts including iron bar, ingots and cannon, and ship structure from this vessel built in the 1570s, were raised from the Thames (Firth 2006; Auer & Firth 2007: 222). The site is significant in terms of illuminating understanding of trade with the Iberian peninsula in the Elizabethan period and also demonstrating the practice of 'furring' of ships within the particularly well preserved ship structure.

The PLA were undertaking the works within their statutory powers, so there was no official requirement for archaeological assessment, however, the PLA chose to be pro-active and follow best practice. However, as the project progressed the lack of formal regulatory framework began to show with arrangements for post-excavation work and future archive deposition having to be negotiated as 'best possible'. The archive was for some time in limbo with elements spread between Wessex Archaeology, on a Thames quayside and in Horsea Lake near Portsmouth. While some museums were keen to take parts of the archive, for a long time no single museum could be identified to take the collection, it has now been believed that Museums in Docklands will take most of the archive following a five year research program (<http://www.ucl.ac.uk/archaeology/research/projects/gresham>). However, this doesn't include the ship structure which is under the care of the Nautical Archaeology Society, and it is unclear whether the guns will remain at the Royal Armouries. The post-excavation research program will be undertaken by University College London in collaboration with the PLA, Gresham College, NAS, University of Southern Denmark, Museum in Docklands and Museum of London.

The protracted negotiations and uncertainty for the archive of the Gresham Ship have highlighted the plight of cultural heritage when impacted within port activities undertaken as part of statutory powers. There is an urgent need to establish an agreed framework for the future when other sites are discovered in these circumstances. A particularly 'grey' area is who is responsible for funding works related to cultural heritage, in line with other approaches to heritage the 'developer-pays' principle should be applied, but there is no specific legislation or guidance on this.

Planned Clearance Due to 'Environmental' Concerns

Focus on environmental concerns has meant that hulked vessels, particularly metal vessels, which are perceived as being 'modern' and hence of no historic value, are often targeted for 'clearance' or 'clean-up' initiatives. As archaeological sites in the intertidal zone, hulks tend to occupy a difficult position in terms of management roles and responsibilities. Many of the hulks have been, or are, privately owned, although they may have been abandoned with no intention of returning to them. There are also questions over responsibility between local councils, landowners and harbour authorities where the boundaries can become blurred. This lack of clarity extends to heritage protection, where in theory either the terrestrially based Ancient Monuments and Archaeological Areas Act 1979 could be used to schedule a site or the Protection of Wreck Acts 1973 could be used to designate. Further confusion can set in with the National Historic Ships Register which includes some vessels in a considerable state of disrepair.

Solent Hulk Clearance: Two Contrasting Cases

Despite work by the HWTMA to raise the profile of maritime cultural heritage and the historic nature of hulked vessels this has not resulted in comparable treatment of these sites within the region. HWTMA has been involved in two very different cases:

Chichester Harbour Proposed Hulk Clearance: prior to the planned removal of four vessels HWTMA were funded by Chichester Harbour Conservancy (CHC) to undertake a survey and assessment of the vessels in 2004. The vessels included a fuel barge, a hopper barge, a dilapidated pinnace and a WWII Landing Craft. Differing levels of survey were undertaken depending on their potential significance and recommendations put forward where appropriate.

River Hamble Boatyard Clearance:

HWTMA were first alerted to the removal of hulked vessels from a boatyard on the River Hamble through an article in the Southampton Echo Newspaper praising the 'environmental improvement' this work would bring. With permission for removal having been granted, HWTMA stepped in on a rescue basis to assess the sites in more detail in 2005 and 2006. One site in particular, a World War One seaplane tender, was identified as being of particular national significance, with only one other known surviving example in existence. A survey of this site was undertaken, with more detailed work being included within a HLF funded project (HWTMA 2008). Despite work to highlight the importance of this site it remains unprotected and subject to an uncertain future.



Figure 2: WWI Seaplane Tender

The removal of hulks as part of the ‘environmental clean-up’ has been encouraged (eg Hampshire County Council 2008), despite the existence of the Hamble River Estuary Management Plan (see Section 5.3 and Appendix 9.6.1), which has a clear commitment to heritage.

There seems to be a lack of understanding of the potential historic significance of hulked vessels, with many being considered ‘eye sores’ or environmental pollution. A number of archaeological case studies over the past ten years have developed understanding of individual and collections of hulked vessels; these include Purton (Barnett 2007; Parker 1998), Whitewall Creek (Milne et al 1999), the River Exe (Exe-press 2009), Salcombe Estuary (D Parham *pers comm.*), Maldon in Essex (Maldon hulks), the Taw and Torridge North Devon (Preece 2008), Aberlady Bay (Connect Archaeology 2002), the River Hamble (HWTMA 2008), River Itchen (Itchen River Project 1999). While these projects have raised the profile of hulked vessels within the heritage community, it appears this has not always extended to the ports, harbours and estuaries sectors.

Issues around the protection and management of these collections is currently being developed, particularly by English Heritage (Hansard 2009), which should result in clearer strategy in this area. Historic Scotland have applied terrestrial based legislation to one collection of hulks at Aberlady Bay which includes a range of vernacular fishing craft, demonstrating willingness to act to protect these sites.

While accepting that some sites may be targeted for removal, if this course of action is followed there should be a programme of archaeological assessment and recording to ensure that an archive of these sites is produced. When sites are demonstrated to be of particular significance then *in-situ* protection and management will need to be carefully considered.

5.2.4 Issues Highlighted

The key issues highlighted within this section related to archaeology and heritage within ports, harbours and estuaries are:

- Lack of clarity over roles and responsibilities in relation to heritage assessment, management and curation;
- Guidance documents available for the ports, harbours and estuaries sector are less detailed than others that have been produced for marine industry sectors;
- The development of approaches to cultural heritage within the EIA framework has had a positive impact in terms of raising the profile of cultural heritage as well as developing best practice;
- Lack of planning or setting aside contingency for potential encounters with cultural heritage within harbour works undertaken through statutory powers;
- There is a need to clarify who is responsible for funding work on sites and landscapes encountered during harbour works;
- Perceptions of what constitutes ‘archaeology or heritage’, particularly in relation to hulked vessels, is not well developed across the ports, harbours and estuaries sector; and
- Works undertaken as part of ‘environmental clearance or clean-ups’ can mean significant sites are removed without heritage assessment.

The impact of these issues means that archives related to archaeological sites and landscapes within ports, harbours and estuaries have a very uncertain fate. This applies to the *in-situ* archive which exists on site as well as any recovered archive – whether structure, objects or records.

5.3 Review of Archaeology within Port, Harbour and Estuary Plans

Ports, harbours and estuaries are either required to, or encouraged to, develop, maintain and review management plans. These plans should take into account a wide range of factors relating to the operation of the port and potential impacts this may have. The extent to which considerations of cultural heritage are included within these plans is not consistent.

The drivers for the development of plans vary, with the most common being required for:

- Coastal and flood defence, and climate change – related to developing and maintaining policies for different areas of the coast in response to changes in sea level and climate.
- Environmental conservation – this has been particularly spurred on by the EU Habitats Directive and its transposition into UK law.
- Port marine safety – in particular the Port Marine Safety Code which was developed in 2000 to provide a national standard. It includes the provision to "improve safety for those who use or work in ports, their ships, passengers and cargoes, and the environment". This is largely related to health and safety, although the inclusion of 'environment' within the code means wider environmental concerns are sometimes included within implementation.
- Environmental sustainability – particularly linked to sustainability and reduction in carbon emissions promoted through the Climate Change Act (2008).

Some of these issues are tackled together within single documents; others have 'stand alone' policies and plans. Many of the plans are non-statutory and have a range of titles. Documents concentrated on within this project as being most applicable to ports, harbours and estuaries include: Estuary Management Plans, Harbour Management Plans, Sustainability Plans, Development Plans, Environmental Policies, Environmental Strategies and Environmental Codes of Practice.

The review of plans has concentrated on a detailed study of the Solent region in addition to a wider review across the UK. This has enabled understanding of the various approaches to environmental management and its potential impact on cultural heritage.

5.3.1 The Solent

The Solent area of the UK (Figure 3) has been recognised as being of particular significance for marine and maritime cultural heritage (Fulford et al 1997). This nationally important maritime heritage resource comprises the submerged prehistoric landscapes of a drowned river valley alongside the remains of several millennia of boat and ship activity and associated shore side infrastructure through to the crashed aircraft remains of the 20th century (Figure 4). The Solent is also one of the busiest stretches of

water around the UK with numerous commercial ports, marine transport hubs, marine industry, dredging, fishing, survey, diving, sailing and leisure activities all taking place. There are also a large number of important marine life habitats in the area, many of which have protection through designations as SSSI's, RAMSARs, SACs and local nature reserves. This mixture of resources and activities provides a significant challenge for management.

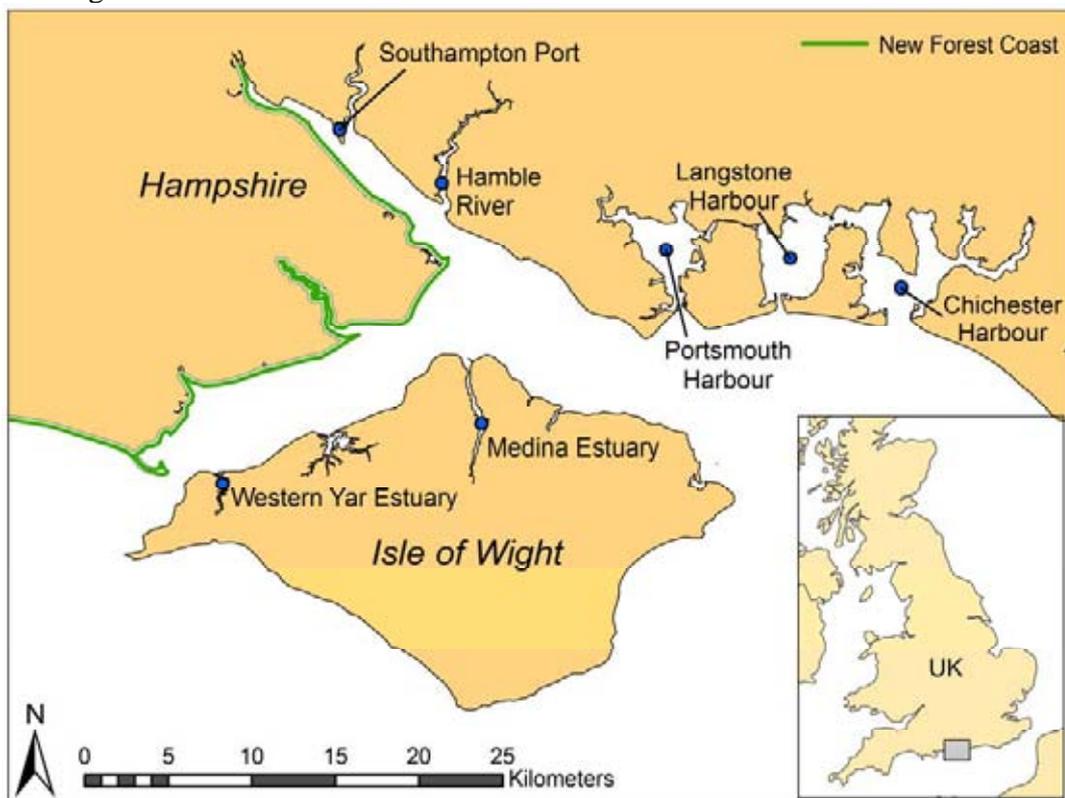


Figure 3: The Solent area including ports, rivers and estuaries with management plans reviewed for this project



Figure 4: Submerged and intertidal archaeological sites exist alongside commercial ports and industry

A selection of port, harbour and estuary management plans from the Solent region has been reviewed to compare how archaeology and cultural heritage is included within them. Plans consulted were:

- Medina Estuary Management Plan, 2000
- Western Yar Estuary Management Plan, revised 2004
- Hamble River Estuary Management Plan, 2003
- Langstone Harbour Management Plan 1997, revised 2009
- Portsmouth Harbour Plan Review (2000)
- Chichester Harbour AONB, 2009
- Southampton Port – Sustainable Development Policy, undated
- New Forest District Coastal Management Plan 1997, revised 2003
- Shoreline Management Plans

Appendix 9.6.1 provides detail of how cultural heritage is considered within each of these documents, including any specific policies and actions. Analysis of these has revealed:

Estuary Management Plans (EMPs)

- Most EMPs have separate sections for either ‘archaeology’ or ‘cultural heritage’;
- EMPs have a generally similar approach with protection and promotion of cultural heritage featuring within specific policies;
- Improving information and evidence base for the historic environment is a common need across the EMPs, with some taking a proactive approach to developing this;

- The Medina Estuary EMP is the only plan reviewed within the whole project that actually mentions the need for providing museum capacity for archiving of heritage materials.
- In general EMPs provide good consideration of cultural heritage.

Port and Harbour Management Plans (HMPs)

- Within the HMPs the consideration of cultural heritage is fair to good, although usually not as comprehensive as in the EMPs, with the exception of Chichester Harbour which has extensive actions;
- There is generally more of a focus on cultural heritage in relation to disturbance and development;
- Southampton, the main commercial port represented, does not specifically reference cultural heritage within its available documentation, but the size of the operation means a higher level policy is in place which provides a commitment to ‘having regard for the environment’ within new development and business growth.

5.3.2 Review of Selection of Port, Harbour & Estuary Plans

In addition to the review of Solent based port, harbour and estuary plans a selection of others from around the UK were reviewed to provide a broader assessment of the representation of heritage within these documents (Figure 5). Plans consulted included:

- Hayle Estuary Management Plan, Cornwall
- Dart Harbour and Navigation Authority, Strategic Business Plan 2008 – 2010.
- Avon Estuary Management Plan 2002 & 2009
- Waveney District Council, 2008, Southwold Harbour and Walberswick Quay Conservation Area Management Plan.
- Portland Port Group: Formal Environmental Management Program
- Environmental Code of Practice: for the ports of Falmouth, Truro and Penryn
- Aberdeen Harbour Board, 2003 Environmental Policy Statement & 2005 ‘Our Environment’
- Erme Estuary Management Plan
- Fowey Estuary Management Plan
- Ilfracombe Strategic Development Plan
- Dover Harbour Board Environmental Policy
- Felixstow Environmental report
- ABP Ports Environmental/ Sustainable Development Policy
- Management Plan for the Harbour of Rye
- Salcombe & Kingsbridge Estuary Environmental Management Plan
- Yealm Estuary Management Plan 2007 – 2012
- Humber Management Scheme 2006
- Belfast Harbour Health, Safety and Environment Policy Statement

This list of plans does not claim to be fully comprehensive as there was only scope within this project to review a selection. A full list and summary notes can be found in Appendix 9.6.



Figure 5: Location of port, harbour and estuary plans around the UK consulted

Humber Estuary Case Study

The Humber Estuary is a highly significant area for maritime cultural heritage. The large areas of wetlands contain important archaeological evidence from many periods, including important Bronze Ages sites and evidence. The Ferriby boats, three Bronze Age sewn plank boats have been recovered from the estuary, and more recent survey work has demonstrated further in-situ remains and a wealth of historical archaeology (Deegan, A. 2007; Van der Noort & Ellis 1997; Van der Noort, R 2001).

The management of the Humber Estuary has been reviewed by Burden & Cutts 2008; this outlines that management across the estuary is contributed to by the Humber Estuary Relevant Authority Group (HERAG). There is a Humber Advisory Group (HAG) which provides information to the HERAG on a range of specialist issues. There is archaeological representation on the HAG through the Wetland Archaeology and Environments Research Centre, University of Hull. Despite the existence of the HERAG there are still a range of sectoral plans for the Humber area which, to some extent overlap. Also local and regional planning documents and frameworks can take different approaches. This situation highlights that estuaries in particular have traditionally been used as boundaries, making integrated management challenging.

Within the Humber Management Scheme (2006) there are seven categories of activities, however, cultural heritage does not specifically feature within these other than being highlighted as 'archaeological survey' being one of the forms of human activity taking place within the Estuary (2006: Section 5). The Estuary Management scheme has also produced a set of Codes of Conduct, however, within this 26 page document there is no mention of cultural heritage.

So, despite the high significance of the Humber Estuary for cultural heritage it does not feature within the formal management documents available.

The Humber case study highlights a number of issues related to the management of a large estuary system with a complex range of organisations, groups, agencies and businesses involved. Some of these issues were also raised during the wider review of available plans; analysis has revealed:

- When works in ports, harbours or estuaries are not large enough to trigger an EIA the management of these activities should be undertaken within the framework of appropriate management plans and/ or other required consents;
- Despite extensive internet searches quite a number of the large commercial ports do not appear to have management plans or environmental policies publicly available;
- There are large differences between smaller rivers and harbours and larger, usually more commercially focused ports, in the approach to management of environment and particularly of cultural heritage;
- If plans include the historic environment (eg most EMPs) they usually highlight the poor evidence base for the historic environment;
- Term 'Environment' or 'Environmental' is most likely to be used to refer to the natural environment, biodiversity, waste management and carbon use within commercial port documentation (eg Dover, Felixstow, ABP ports);
- Increasing marine development opportunities (eg growth in renewables and cruise ship market) are prompting increased planning for new business and change;
- The links between heritage and tourism/ community engagement are very prominent in some plans (eg Avon Estuary Management Plan), while others fail to find a link between these aspects (eg Ilfracombe Strategic Development Plan).

Research has also highlighted that a number of commercial ports have been undergoing development and expansion in recent years. While demand for shipping transportation may have declined due to the current economic climate there are a range of marine developments which are increasing the need for facilities. The offshore renewables sector is undergoing a large expansion and there is also a steady demand for cruise ship facilities. Examples of ports which have undertaken expansion, are in the process of expansion or are undertaking environmental studies include: Bristol (Avonmouth), Falmouth, Dover, Felixstow and Southampton. Much of this work is large scale and has triggered EIA and associated Environmental Statement production, work at this scale should have cultural heritage concerns fully integrated within related studies, assessment and mitigation.

5.3.3 Issues and Observations from Plan Review

During review of the plans a number of observations were made and issues were highlighted, these include:

Differences between smaller harbours and estuaries and larger commercial operations

Inevitably the size of the ports, harbours and estuaries and their functional focus has an impact on their management. There is a clear division between smaller harbours and estuaries that have mixed use which usually take a pro-active approach to managing all aspects of the environment and the larger commercial operations which are dependant on business interests. Most commercial operators have higher-level policies which express a commitment to work within all relevant environmental guidance, whereas the smaller harbours and estuaries often have more detailed management plans and policies. This is usually influenced by the groups and organisations involved in the development and delivery of plans.

The need for expansion due to increased marine developments is specifically recognised through some plans, and is highlighted by the amount of work being undertaken by many of the commercial ports. Key drivers for business expansion are offshore renewables and provision of facilities for cruise ships.

Terminology used

The range of terminology used for plan or policy titles and for referring to the historic environment varies considerably within the documents. This is usually influenced by the main drivers for development of the policy eg the EMPs are driven by the need for integrated coastal zone management which requires broad stakeholder involvement, whereas, commercial environmental plans are responding to provisions such as Port Waste Management.

The drivers behind the plans also appear to have an impact on the interpretation of the work 'environment' or 'environmental'. Most EMPs and HMPs interpret 'environment' as related to the natural environment and biodiversity; most commercial ports consider 'environment' as meaning carbon and waste with some reference to biodiversity. Very

few plans appear to consider 'environment' to include 'cultural environment' as well as 'natural environment'.

References to archaeology and heritage within the plans variously include the following: 'archaeology', 'historic environment', 'cultural heritage', 'cultural resource', 'heritage resource', 'archaeological heritage', 'historical heritage', 'maritime heritage'.

Use of terminology often reflects the date at which the plans were developed and written. As environmental management is a relatively rapidly developing area interpretations and terminology will inevitably develop over time. This can be seen within archaeology and heritage which has generally moved away from specific reference to 'archaeology' or 'archaeological sites' towards the broader term 'historic environment'.

Date of production of plans

Also linked to the key 'drivers' behind plan production is the date at which they were initially developed. Many of the original versions of EMPs and HMPs were produced in the late 1990s or early 2000s due to the promotion of integrated management in relation to developing national plans, policy and legislation. In particular the EMP process appears to have developed a relatively consistent approach to the design and delivery of EMPs, and hence relative consistency in the inclusion of cultural heritage within the plans.

Later management plans have tended to be related to developing legislation, guidance and policy, such as Port Waste Management, health and safety requirements and carbon emission targets. They often refer to environmental assessment process (the EIA framework) which has become much more established, particularly in relation to cultural heritage, over the past ten years.

Lack of heritage legislation or directives affecting inclusion and profile

It is noticeable that the natural environment, biodiversity and species issues have a relatively high profile within port, harbour and estuary planning documents. This appears to be linked with specific EU legislation and the Habitats Directive. There is a clear need for further integration of 'natural' and 'cultural' sectors within the marine environment.

In terms of heritage legislation there are a range of terrestrial based planning policies and guidance within local, regional and national frameworks (eg Scheduled Monuments, Listed Buildings, and Conservation Areas); however, the only specific marine heritage legislation is the Protection of Wrecks Act 1973 which has a very narrow focus on shipwrecks of national importance. The result is that very few ports, harbours and estuaries have any sites designated under the Protection of Wreck Act, which means specific marine heritage legislation is not usually referenced within management planning.

Although historic environment databases maintained by the devolved nations' heritage organisations include marine sites, particularly shipwrecks, very few of these sites have any statutory protection so are not frequently 'flagged up' during scoping works for plan development. This, linked with very limited numbers of heritage specialists available to

input into plans (see below), has contributed to a low profile for inter tidal and marine cultural heritage.

Developments in marine management through the Marine and Coastal Access Act 2009 and the Marine (Scotland) Act, have allowed for the development of Marine Protected Areas (MPAs). The UK Marine Protected Areas Centre (www.ukmpas.org) states that:

‘Marine Protected Area (MPA) is a term used across the globe to describe "any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, **historical and cultural features**, which has been reserved by law or other effective means to protect part or all of the enclosed environment" (Kelleher and Kenchington, 1992). The protection afforded is aimed at reducing destruction, damage or the reduction in distribution of marine species and/or habitats’.

In the UK, MPAs are set up primarily for the conservation of our marine biodiversity and to protect species and habitats of international or national importance. The main types of MPA in the UK are Special Areas of Conservation (SAC). SACs, in addition to Marine Nature Reserves (MNRs) and Special Protected Areas (SPAs) are protected by statutory obligations. The UK also has voluntary MPAs such as Voluntary Marine Conservation Areas (VMCAs) and Voluntary Marine Nature Reserves (VMNRs)’.

Despite ‘historical and cultural features’ being embedded within the agreed global definition of MPAs, the inclusion (or exclusion) of cultural heritage within enabling legislation, differs between England and Scotland. In England the MCA provides powers to create Marine Conservation Zones (MCZs) that, along with current habitat and species protected areas (eg SACs) will all form a network of MPAs. None of these types of protection allows for the inclusion of cultural heritage within them. Scottish legislation specifically enables the designation of ‘Historic MPAs’, thereby ensuring heritage is provided protection and also equal profile alongside other environmental designations. It is expected that this divergence in legislation, and hence future management, is likely to be visible in future marine management approaches, including within ports, harbours and estuaries. This should be monitored in the future to ensure marine cultural heritage is being appropriately protected and managed, particularly within English waters.

Boundaries and overlaps

Estuaries have traditionally been boundaries between territories, regions, counties and authorities. This has often led to management across estuaries, and even harbours and ports, including a large number of adjacent or overlapping plans and policies. This situation is being addressed through various approaches to ICZM; however, particularly in relation to cultural heritage there are some ‘grey’ areas in terms of management and planning.

It is often the case that local authority boundaries actually span the mouth of an estuary, so in theory local planning frameworks and legislation should apply in these areas. However, there are also distinctions between whether legislation only applies down to the low water mark (for terrestrially focused), or conversely up to the high water mark (for marine focus). In terms of heritage input and curation in these zones this provides potential confusion over whether local authority archaeologists should be curators for the

whole estuary or whether national curators eg English Heritage, Historic Scotland, Cadw (as curators for the marine zone) should also be providing management input.

Lack of archaeologists and heritage specialists to provide input/ representation

In general there has been a low profile for archaeology and heritage within plans due to the small numbers of historic environment professionals who have been able to dedicate time to plan production (although there are some notable exceptions to this). Where local authorities have been involved it often means terrestrial archaeologists have provided input, which enhances heritage consideration.

On a national scale, it should be recognised there are few coastal and marine heritage specialists who have been able to directly contribute to management planning. This is partly a product of the relatively slow development of maritime and marine archaeology and lack of integration with terrestrial heritage. This is in contrast to the number of professionals working within nature conservation and environment where there are often local authority specialists, government agency specialists, charity based specialists and specialist clubs and societies all contributing to management and planning issues.

To improve this situation would require input from coastal and marine heritage specialists when plans are being either developed or revised to help raise the profile of cultural heritage within management planning.

Impact of archaeological work within the area

Many of the EMPs recognise the need to improve the baseline information in relation to archaeology and cultural heritage. Some of the plans reviewed had already benefited from extensive archaeological survey projects having been undertaken, such as the Fowey EMP and recent updates of the Chichester Harbour Management Plan. Some plan areas are known to have had archaeological surveys undertaken such as Langstone Harbour (Allen & Gardiner 2000) and the Humber Estuary (Van de Noort & Ellis 1997); however, in these cases it does not seem to have greatly raised the profile of heritage within management. The Langstone HMP does mention that the survey has been undertaken, but this has not resulted in pro-active policies for heritage, this contrasts with neighbouring Chichester HMP which has a number of pro-active policies.

The generally poor understanding of coastal archaeology and heritage is recognised by EMPs and also through the Round One Shoreline Management Plans. In England, in particular, this has prompted a number of Rapid Coastal Zone Assessments which are coordinated and funded by English Heritage. This work is providing much needed baseline data for future management planning (see online archive for RCZA project so far completed: <http://archaeologydataservice.ac.uk/archives/view/rczas/?CFID=573996&CFTOKEN=39545028>).

In the coastal and marine zone there has been development of Historic Seascape Characterisation (HSC) which attempts to extend the concepts of terrestrial Historic Landscape Characterisation (HLC) into the offshore zone (<http://www.english->

heritage.org.uk/professional/research/landscapes-and-areas/characterisation/historic-seascape-character). This has resulted in the creation of spatial datasets and associated contextual information that should be used to feed into marine planning initiatives. HSC provides very broad baseline data for the marine historic environment and should help raise the profile of the historic environment within marine planning.

In order to better assess the impact of having a better baseline of historic environment data on the profile of heritage within management planning and delivery more detailed research on individual areas would be beneficial. It would also be helpful to monitor the impact of more comprehensive heritage data on newly developing planning and management.

Impact of coastal management groups and fora

The development of EMPs and HMPs has often prompted the development of specific fora and groups which have then become established within the management framework for an area. In other areas management planning within ports, harbours and estuaries has benefited from already existing wider coastal fora. This is seen in the Solent region in particular where the Solent Forum (<http://www.solentforum.org>) and the Standing Conference on Problems Associated with the Coastline (SCOPAC) (<http://www.scopac.org.uk>) are long established groups promoting management planning. The existence of these groups has meant the Solent area has often led the way with developing management approaches, it has also provided a degree of unity in terms of approach across the region. The development of estuary, port and harbour management plans appears to have benefited from having heritage membership of these groups and specifically coastal and marine specialist input.

There are a number of coastal groups and forums now established around the UK (eg Dorest Coast Forum, Scottish Coastal Forum, North West Coastal Forum). However, it is not known how heritage is represented within these groups, gaining a better understanding of this would be a useful area for future research.

Impact of the plans on cultural heritage management

Research for this project has raised questions of how management plans may have impacted cultural heritage in a particular area. For instance, where plans have pro-active policies related to heritage has this meant greater number of archaeological surveys or better consideration of sites through the planning process or ahead of disturbance? Have policies within plans always been followed and/ or put into practice? More detailed research in this area would allow the impact of plans on cultural heritage to be better quantified.

5.4 Impacts on Archives from Ports, Harbours and Estuaries and Recommendations

While there are a range of positive areas of development, such as the relatively consistent inclusion of heritage within EMPs and good representation within the EIA process, there are also some key areas for concern within this sector. These include:

- The treatment of cultural heritage within port, harbour and estuary works which are not large enough to trigger an EIA and/ or are carried out when features are considered a ‘hazard to navigation’, or part of other environmental ‘clearance’ works. Whether these sites are assessed, recorded and archived is uncertain;
- The uncertainty over responsibilities for curation within coastal and marine zones makes setting of conditions on consents inconsistent – with the result that archives may not even be created let alone deposited;
- Responsibility for monitoring the deposition of archaeological archives from either development related or research lead investigations is unclear;
- Lack of detailed cultural heritage guidance documents for the sector;
- Lack of understanding of what constitutes ‘archaeology’ and/ or ‘heritage’ within the ports, harbours and estuaries sector.

This situation has implications under established best practice and also commitments through the Valletta convention, which the UK has signed up to (see Appendix 9.3 for further details on the convention). Particular elements of the Valletta convention that current policy and practice within ports, harbours and estuaries may not adhere to are:

- Integrated conservation of the archaeological heritage
Article 5 - Each Party undertakes: vii. to make provision, when elements of the archaeological heritage have been found during development work, for their conservation *in-situ* when feasible;

While *in-situ* preservation may not always be possible in relation to port and harbour works, there are instances where this principle could be applied. For instance if a wreck was found close to a shipping channel and was thought to be a hazard this could be marked with a buoy rather than removed. If *in-situ* conservation is not feasible then preservation by archaeological recording and recovery may be required. ‘Each Party’ in this instance refers to the State, so it is Government responsibility to facilitate this.

- Financing of archaeological research and conservation
Article 6 - Each Party undertakes: ii. to increase the material resources for rescue archaeology: by taking suitable measures to ensure that provision is made in major public or private development schemes for covering, from public sector or private sector resources, as appropriate, the total costs of any necessary related archaeological operations;

This relates to the need for the government to ensure suitable resources are in place for any required archaeological operations. For works within development control and EIA framework there is a well established ‘polluter pays’ principle. However, within certain port and harbour works this is not well established and ‘ad hoc’ arrangements have to be made, for instance with the Gresham Ship.

5.4.1 Recommendations

There are a number of ways the issues related to archives within ports, harbours and estuaries can be tackled. These include:

Promotion of heritage within management planning

- There is a need for best practice guidance document for cultural heritage within ports, harbours and estuaries (particularly port operators) in line with documents produced for aggregates (2003) and renewables (2007) industries. This should allow for the presentation of a range of case studies demonstrating a variety of situations where heritage is impacted. Such a document would also be timely due to changes in terrestrial planning policy guidance and marine licensing and consents.
- Support for coastal and marine heritage specialists to attend and input into coastal groups and fora, should increase the profile of heritage within planning and management.

Specific TCE management actions

Where research or development work is being undertaken within an area that requires TCE permission then it would be possible for TCE to add more specific wording into the conditions of consent related to archaeological best practice and archiving. Example conditions provided by TCE for permissions for HWTMA work have been reviewed, and while these ask for a copy of a report to be provided to TCE they do not currently mention work having to be undertaken in line with established best practice, or the deposition of archives in a public repository. Suggested useful conditions might be:

- All works are undertaken in line with established best practice for archaeology as outlined within the Institute for Archaeologists Standards and Guidance;
- The archive resulting from work is deposited within a public repository (museum, record office or archive centre); and
- An OASIS form is completed and/ or the appropriate National Monument Record is provided with details of the work undertaken and a copy of the resulting report.

It is appreciated that including these conditions means they would need to be monitored, however, this could be simply achieved by an organisation sending confirmation by email to TCE that archives have been deposited and OASIS forms completed.

Where works within ports, harbours and estuaries are not large enough to trigger an EIA, but require TCE consent there is an opportunity to influence whether and how cultural heritage is considered. This is particularly relevant when applications for work would not otherwise reach a heritage curator such as Local Authority Archaeologist or English Heritage. This could be achieved by utilising standard conditions on consent such as those outlined above, or:

- Works must consider potential impacts on cultural heritage and ensure appropriate assessment and mitigation in line with established best practice as outlined within the Institute for Archaeologists Standards and Guidance.

Further research

This element of the project has highlighted a number of areas that would benefit from further research:

- In order to assess the impact of having better baseline historic environment data on the profile of heritage within management planning and delivery, more detailed research on individual areas would be beneficial. It would be helpful to monitor the

impact of more comprehensive heritage data on newly developing planning and management.

- There are a number of coastal groups and fora now established around the UK. However, it is not known how heritage is represented within these groups, gaining a better understanding of this would be a useful area for future research.
- Review of greater number of port, harbour and estuary plans, particularly those of commercial operators, followed up with direct contact with port operators would enhance understanding of the historic environment in relation to port operations, planning and management.

6. Historic Material and the Merchant Shipping Act

Project research has aimed to gain a more detailed understanding of the fate of historic material reported through the Merchant Shipping Act 1995. The RoW in particular has provided extensive information on a range of heritage related questions. This has provided information on the quantities of historic material reported, information recorded on the artefacts, and how they are assessed for their significance. Further contact with heritage database managers was established to review how data from RoW was integrated within their records. The current and potential roles of TCE, government agencies and the Treasury have been reviewed through direct communication with individuals and organisations.

The Merchant Shipping Act 1995 was originally drafted in the 19th century and has changed very little since that date. The primary purpose of the legislation is the recovery of personal property as it allows for the owners of ships and cargo lost at sea to regain these items if recovered. Those recovering material are entitled to a salvage award to cover the costs of recovery, however, within the modern context, divers recovering items with little financial value are often given the item in lieu of a salvage award (especially if no owner can be identified). Although the RoW strives to place historic items in museums when possible, this is not often possible. With many artefacts being given to the finder in lieu of a salvage award this means a gradual attrition of the seabed archive, with cultural heritage ending up in private ownership and inaccessible to the general public.

Work during the SFMAA project established that TCE had little formal involvement with the RoW process. If TCE has granted a licence for the disturbance of the seabed in and around wreck sites then it encourages all artefacts removed to be ‘retained for public interest’. However, as owners of the seabed TCE in practice ‘hosts’ many thousands of divers visiting the seabed and associated historic sites. Further recognition of this comes through TCEs licensing of the establishment of diver trails on historic sites. The recoveries made by divers include hundreds of objects each year, some of which are of archaeological and historic significance; project research sought to quantify these recoveries and examine ways to increase the amount of historic information recorded and numbers of artefacts reaching public museums and repositories.

6.1 Reporting and Assessment of Historic Material through RoW

The quantification of artefact recoveries on an annual basis has allowed the review of approximate levels of historic material being salvaged from the seabed. Information on

the process of assessment of historic significance and numbers of artefacts being deposited within museums provides a detailed context on which to base recommendations for improving the fate of these archives.

6.1.1 Numbers of Artefacts Reported

Since the RoW amnesty held in 2000 (RoW 2001) and continued education initiatives by the RoW, finders have continued to report wreck material they have recovered. The following statistics on the number of reports and the levels of historic material included within the reports have been gained from RoW annual reports and through correspondence with the RoW.

Year	Total no of reports	Historic wreck reports	% of total
2001	380	85	22%
2002	376	96	25%
2003	287	90	31%
2004	317	121	38%
2005	258	94	36%
2006	275	120	43%
2007	290 (not including <i>Napoli</i>)	92	32%
2008	299	105	35%
2009	483 (including <i>Sinegorsk</i>)	72	15%
2010	352	125	35%

The numbers of ‘historic’ objects only include those over 100 years old, and hence do not include items of historic significance of a younger date. As highlighted by the RoW some artefacts that do not fall within the ‘historic’ definition are deposited with museums, so these figures must be treated with caution in terms of quantifying artefacts of significance being recovered from the seabed. However, the statistics serve to show the numbers of reports submitted to the RoW each year. The percentage of items which are within the ‘historic’ category shows variation between years with the highest percentage being in 2006 (43%) and the lowest in 2009 (15%). These figures demonstrate how individual wreck events, in this case the *Sinegorsk*, have impacted the percentage. Looking at the actual numbers of historic objects *per annum* these range from 72 to 125; if artefacts of significance under 100 years old are added to the totals the numbers will be higher. These figures demonstrate the continued gradual recoveries from wreck sites whether officially classed as ‘historic’ within the RoW definition or of a younger date.

It should be noted that from 2014 the numbers of ‘historic’ objects are likely to rise due to the high numbers of ships lost during the First World War. Pre-empting this increase would allow items of particular regional, national and international interest to be acquired and/ or donated to public museums or archives. It should also be stressed that objects less than 100 years old can be of great significance and potentially of interest for museums.

6.1.2 Artefacts Deposited in Museums

The RoW provided more detailed information on how much material reported was being deposited within public museums. Although not all reports from 2008 or 2009 are resolved yet, in 2008, the current figures demonstrate that 16 reports were closed with the

items donated to museums. For 2009, the current number donated to museums is 5, although there are still 200 reports open for this year, so this figure is likely to rise.

It is encouraging that objects are being deposited within museums; however, the percentage figures are still very low. For instance, the 16 reports from 2008 which resulted in artefacts being deposited in a museum represent only 5% of the total 299 reports from that year, and 15% of the 105 reports classes as 'historic' from that year.

6.1.3 Historic Assessment

In terms of the process of historic assessment of individual artefacts the RoW provided the following information:

- All reports are treated individually in terms of the level of salvage service, determination of ownership and consideration of historic/ archaeological value.
- Factors which trigger a more detailed historic assessment can be quite varied; they include age of the item(s), age of the wreck, the story attached to the wreck or artefacts, apparent rarity or anything interesting or unique.
- Personal experience and knowledge is used by RoW to help determine levels of historic assessment.
- If an object is over 100 years old this does not automatically mean the RoW will seek further advice from and expert or heritage organisation.
- RoW undertakes their own research on mass produced material such as crockery that was carried as cargo, bottles etc to review stamps, maker's marks, patterns etc.
- Even if RoW has not sought expert or specialist advice and has undertaken research themselves they may still seek to find museum homes for significant material.

One issue in relation to the RoW system is the extent to which finders are honest in terms of naming the wreck that artefacts have been recovered from. For instance, it could be possible to say an object was from a different wreck of a similar date to keep the location of a newly discovered wreck confidential. The RoW was asked whether more detailed historic assessment of artefacts could help detect when this could have happened. The RoW outlined:

“We have arrested finders because we suspected they had done this. In reality, there is nothing to gain by giving this kind of misinformation, so we try to combat it through education. Search warrants and prosecutions are a last resort” (Alison Kentuck, pers comm.: 5 Aug 2011).

In terms of whether more consideration of the historic nature of finds would help detect this practice the RoW was not sure it would, and also raised concern that “we already stretch the limits of what some heritage agencies are able to offer us, so I'm not really sure how we could give greater consideration to the historic nature of finds” (Alison Kentuck, pers comm.: 5 Aug 2011). The RoW was open to suggestions on how to contribute to this situation.

6.1.4 Research and Collection Integration

When assessing historic importance, the RoW takes account of particular collections held within museums or specific research priorities if they are aware of them. However, it

should not be assumed that the RoW will be aware of these. It is the responsibility of the heritage agencies to keep the RoW informed of the development of relevant research frameworks etc.

In terms of collections already held within museums the RoW outlined that “Some museums have contacted us to explain what their particular interests are and because of this we have been able to help them with research and donation of artefacts which we might not otherwise have contacted them about” (Alison Kentuck, pers comm.: 5 Aug 2011). This is a positive statement and highlights a potential way to improve the levels of material deposited – if there was more communication between museums and RoW from both sides it would articulate collection policies of area based or special interest museums, and also provide more information on artefact types frequently reported to RoW. This may help with some deposition, although it should be recognised that the SFMAA project surveyed public museums bordering the coast and many were unwilling or unable to collect from the marine zone.

In terms of further research, the RoW also mentioned there is scope for them to suggest dissertation topics for maritime archaeology students based on material that is regularly received or gaps in knowledge that they have noted during research. This would be a way to stimulate much needed research in this area. The reporting of individual recoveries via the RoW process would be an interesting comparison with the items reported through the BMAPA Protocol, and in the future through the renewables Protocol. Artefact based research has the potential to add significantly to archaeologists ability to determine significance, a larger knowledge base in relation to maritime artefacts, ship structure, fixtures and fittings is an area that is currently lacking.

6.1.5 Non-Wreck and Reporting

Discussion of the reporting and recording of wreck artefacts through the RoW system serves to highlight that the ‘Merchant Shipping Act’ only applies to items that some under the definition of ‘Wreck’, which includes flotsam, jetsam, lagan and derelict. This does not include any artefacts related to submerged prehistoric landscapes and occupation, or indeed historic sites that were once terrestrial, but are now under water.

The present situation means divers recovering prehistoric material are not required to report these discoveries to the RoW. Legally, prehistoric material belongs to the seabed owner (The Crown Estate); however, there is no regulation of its recovery. When this is coupled by the lack of statutory protection available for non-wreck sites under water this means prehistoric sites are vulnerable to un-regulated and un-recorded recoveries.

Iain Mills (TCE) highlighted a recent case which raised issues of non-wreck items from under water. A diver had found a Bronze Age bracelet off the Isle of Wight while using an underwater metal detector. The finder reported the item which was referred under the Treasure Act (despite the Act not being applicable below the Low Water Mark). Negotiations are underway to secure the artefact in a public museum; however, this will require paying the finder a reward under the Treasure Act. TCE further outlined “It is unclear why the Coroner decided the case should be considered under the Treasure Act.

While TCE are minded to donate the item to a public museum, they do not see it as their responsibility to pay the reward for the finder. There is scope for significant confusion in this area over roles and responsibilities which require clarification for the future. In general TCE do not want possession of non wreck artefacts. They want them to be deposited in a public museum. It is recognised there is a need to develop best practice for dealing with this type of finds to provide clarity for the future” (Iain Mill, pers comm.: 21 July 2010).

It is clear there is a need to develop a system for the recording of non-wreck finds recovered from the seabed. TCE outlined the example of metal detecting on the foreshore where as landowner permits are provided for metal detecting, permits are for surface recovery and do not permit digging into hardpack. “It is currently unclear whether this should be extended to the underwater zone, so divers going out with a metal detector should have a permit from the landowner. TCE probably would not want to permit general underwater metal detecting. But if prospecting for prehistoric material in the marine zone became more common, this may need to be considered”.

It is interesting to note that one of the recommendations of the JNAPC in their report *The Valletta Convention and Heritage Law at Sea: The legal framework for marine archaeology in the United Kingdom* (2003) was ‘That legislation requiring a form of authorisation for the use of metal detectors, or other detection equipment, where these are specifically directed at the underwater cultural heritage, should be introduced’ (2003: 6). This is in response to the article 3 of the Valletta Convention, particular clause 3:iii ‘to subject to specific prior authorisation, whenever foreseen by the domestic law of the State, the use of metal detectors and any other detection equipment or process for archaeological investigation’.

6.2 Recording and Data Accessibility

The RoW has provided information on the levels of records provided about individual artefacts reported. Further examination of how this data is being made available via the devolved nation’s heritage databases was gathered through direct contact with the NMRs.

6.2.1 Artefact Recording

Digital photography has made the submission of photographs of individual objects much more frequent. The RoW outlined that “Many finders will submit images with their report forms and those that don’t are always asked to provide them. Finders are obliged by law to report their finds and to describe the marks by which it may be recognised” (Alison Kentuck, pers comm.: 5 Aug 2011).

Although the RoW advises those reporting that photographs are often the best way of providing the required levels of information they can not compel finders to provide pictures if they have given a thorough description.

6.2.2 RoW Data and Historic Environment Databases

When possible the RoW undertakes to provide the NMRs data on an annual basis, although it was recognised there is a backlog in this data exchange program by the RoW.

Information provided by RoW for NMRs includes:

- Report (droit) numbers
- Positions (where possible)
- Description of the artefact that the finder has provided
- The name of the wreck (where possible)
- Any other information gained through research.

The RoW does not supply photographs as part of the data, but if the NMRs specifically ask for more information then they can be provided.

The NMRs were contacted to determine how they manage the data provided by the RoW, the responses were:

England: The RoW supplies data on an annual basis, although this is usually a year in arrears. There are currently few local authority HERs which have a maritime component, those that do have usually been supplied data from the NMR [now NRHE]. The NMR makes information from RoW reports available via PastScape, so if local HERs were interested in the data they could pick it up from there. There is no formal data exchange between the NMR and HERs (Martin Newman, *pers comm.*: 6 June 2011).

Scotland: The RCAHMS have not received any deposits as yet from the RoW, nor have they contacted us to discuss a transfer of data (Sharon McMeekin *pers comm.*: 6 June 2011).

Wales: RCAHMW last received a download from RoW in 2007. It may be the case that reports are still in the RoW casework system and ownership has not yet been resolved. RCAHMW are happy to take reports in and to do searches for the RoW to help with their casework. "Some coastal material has been reported through the Portable Antiquities Scheme from the intertidal. We get reports from the [Welsh] Trusts chiefly asking to check for any shipwrecks in the vicinity, but the National Museum ultimately handles the processing and coroner reporting via Treasure Trove" (Deanna Groom, *pers comm.*: 4 July 2011).

Northern Ireland: The Maritime Record, which is maintained in partnership with the Centre for Maritime Archaeology, University of Ulster, stated that they had never been contacted by the RoW, although it was recognised that it was possible the RoW has been in touch with NIEA: Built Heritage but the information might not have filtered down (Kieran Westley, *pers comm.*: 18 Jan 2011).

While the policy of data exchange with the NMRs is established, it appears that in practice the process is yet to be set up on a regular basis. England and Wales are both familiar with the data the RoW can provide, whereas Scotland and Northern Ireland are yet to receive data.

6.3 Government Ownership & Archive Involvement

Through the Merchant Shipping Act (1995) 'Wreck from UK waters which remains unclaimed at the end of one year, becomes the property of the Crown (or grantee of the

Crown such as the Duchy of Cornwall)..... If wreck from UK territorial waters is unclaimed at the end of one year, the Receiver will dispose of the find on behalf of the Crown' (MCA 2011: webpage). In this instance 'on behalf of the Crown' relates to the Crown in its broader sense rather than the Crown Estate.

As previously mentioned, many objects reported to the RoW are given to the person who has recovered them in lieu of a salvage award. Only when items are of particular financial value will they be offered for sale.

The RoW was asked a number of queries in relation to the fate of artefacts from government owned vessels, responses revealed:

- Taking 2008 as an example year, approximately 15% of the reports received are from vessels definitely or likely to be owned by the UK Government (RoW highlighted that a larger sample of years would be needed to discover if this was a consistent figure)
- Other Government departments are consulted when trying to resolve ownership of objects from their wrecks.
- There is no difference in the treatment of Government departments as wreck owners than any other owners. The main departments consulted on Government owned wrecks are Department for Transport, Ministry of Defence, Foreign and Commonwealth Office and Treasury Solicitors. If a wreck is thought to be of historic interest RoW would consult the relevant heritage agency in the same way they would for any wreck.

An issue that was raised with the RoW queried whether when an object from a Government owned wreck was resolved by giving the salvor the item in lieu of a salvage award this is essentially moving an object from public ownership into private ownership. If objects were of archaeological or historic significance this is moving publicly owned heritage into the private sector. The RoW responded by highlighting this is not really a question for her to answer, but that "It is fair to say that the majority of Government owned wreck that we deal with does not fall into the 'historic' category and the Department for Transport do not own any wrecks that would fall into the UNESCO bracket (yet)" (Alison Kentuck, pers comm.: 5 Aug 2011). There are instances of Government departments providing a salvage award for items of national heritage interest to retain the item for the public.

In 2010 (June) English Heritage published *The Disposal of Heritage Assets: Guidance Note for Government Departments and Non-departmental Public Bodies*, while this focuses on the built and terrestrial environment it does include wrecks. Protected wreck sites are specifically referenced, in addition the document includes:

"Undesignated archaeological sites. There are many heritage assets with archaeological interest that are not currently designated as scheduled monuments, but which are demonstrably of equivalent significance (EH 2010: 7). And:

"Marine heritage assets. Aside from protected wreck sites (see para 2.3 above), there is little information available regarding heritage assets located in territorial waters. Currently, planning law does not apply to development at sea, and there is no planning

guidance for the marine historic environment.¹⁹ However, there are new provisions for marine planning under the Marine & Coastal Areas Act 2009. English Heritage's Marine Archaeology Team can advise departments regarding the marine historic environment and should be consulted about the disposal of heritage assets (EH 2010: 9)

The document sets down key points to consider in relation to disposals, potentially most relevant for Government owned wreck and the RoW system is point f. "Heritage assets need sustainable ownership. Departments should take reasonable steps to ensure that purchasers of vulnerable heritage assets have the resources to maintain them" (EH 2010: 4).

While it could be argued that giving a salvor an object from a Government owned wreck in lieu of a salvage award is not a 'sale', it is a transaction whereby the salvor gains ownership of an otherwise publicly owned object.

There is a need for further research in this area to establish the involvement of the various Government departments and whether they have specific policies in relation to historic wreck.

6.4 Impact on Archives and Recommendations

The primary role of the RoW is to resolve ownership of recovered property. Whether the property is of historic and archaeological significance is not specifically relevant within the legislation, but it is relevant in terms of best practice and in relation to Government commitments under International Conventions eg the Valletta Convention. The RoW does her best to find museum homes for significant objects, calling on the heritage agencies and a network of specialists when required. This system provides ad-hoc solutions for historic and archaeological objects on a case by case basis. In practice this means hundreds of objects are recovered from the seabed each year, some of which are of local, regional, national or international historic significance.

It is recognised that the current situation has developed through the various legislation for reasons that are not primarily related to archaeology or heritage, however, if the fate of artefacts reported through the system is to improve then it will involve all relevant partners – Government Departments, Heritage Agencies, wreck owners and land owners - to help provide solutions. In the short term, in the absence of any planned changes in legislation that would change the legal reporting and ownership of historic wreck material, pragmatic and workable suggestions for improvements should be developed.

This project has highlighted a number of actions that could be taken.

Additions within the current RoW framework

- Recording more detailed historical information from artefacts when possible (this could include visiting particularly important objects held by finders).
- Undertaking more detailed historic research on objects and making the findings publicly available.

- Develop more active role in liaison with museums to improve the numbers of artefacts being deposited. This could involve the RoW providing more information on recovered objects requiring long-term homes (potentially ‘advertising’ via the internet). Also museums providing the RoW with more information on their collection policies and remits may help identify more repositories for material (although it should be recognised that the SFMAA project surveyed public museums bordering the coast and many were unwilling or unable to collect from the marine zone).
- Support further research on individual or types of objects reported through encouraging undergraduate and postgraduate dissertation topics. This would require more liaison with the University sector.
- Improve data exchange with NMRs to help signpost the existence of objects. When these records are combined with other information on wrecks within the NMR databases this should allow more detailed consideration of the historic nature of the sites, especially in comparison to other potential artefact recoveries that have been made.

Further research

Reports through the RoW system provide significant opportunities for further research that would add to understanding of the archaeological potential of the marine zone, in particular:

- Comparative research on the historic objects reported via the RoW system in comparison with those reported through the BMAPA and renewables Protocols would provide evidence of the site and object types represented in addition to potential to consider the different recovery processes.
- More detailed academic research (in partnership with relevant heritage agencies, museums and funders) would develop understanding of maritime cultural objects recovered from the seabed around the UK. This work would have an impact on the ability to better determine the significance of individual objects recovered in the future. It could help support the development of collection policies of current museums and potential future archive facilities (see below).

Areas of potential TCE action

Funded post hosted within RoW: Although ‘wreck’ is officially outside of TCE area of responsibility in terms of ownership it should be recognised that in terms of wider marine stewardship that divers are recovering many artefacts (part of the seabed archive) and reporting them via the RoW. TCE could have a direct positive impact on the amount of heritage information gained from artefacts recorded by funding (or part funding) a post within the RoW office. This role could help address all of the issues outlined above under ‘additions within the current RoW framework’; it would have a very positive impact across the UK in terms of marine stewardship.

The RoW was asked whether she would welcome the suggestion of an externally funded member of staff specifically for recording and resolving heritage aspects of artefacts. She responded by saying “In very general terms, yes we would (subject to HR policies). The legislation doesn’t identify any difference in how we should treat ‘historic’ wreck as

opposed to ‘modern’ wreck but, in reality, dealing with heritage aspects of artefacts takes up a considerable chunk of our time and resources” (Alison Kentuck, pers comm.: 5 Aug 2011).

Such a post could also help address another key issue – the lack of mechanism for reporting non-wreck finds. As landowner TCE could request that all non-wreck finds are reported to a post within the RoW. This would close the current ‘gap’ in the system whereby prehistoric material can be recovered (despite being owned by TCE) without any reporting. However, it would have to be understood that there is no salvage award in relation to these objects and the finder is likely to be asked to deposit the artefact with a museum. This system would also allow Government to fulfil their obligations under the Valletta Convention which under Article 2 ‘Identification of the Heritage and Measures for Protection’ states:

“Each Party undertakes to institute, by means appropriate to the State in question, a legal system for the protection of the archaeological heritage, making provision for:

iii. the mandatory reporting to the competent authorities by a finder of the chance discovery of elements of the archaeological heritage and making them available for examination.

Review of need for licensing metal detecting underwater: If the option of a post within the RoW is not followed then TCE should keep under review the need to licence metal detecting underwater. However, it should also be noted that with no requirement for reporting non-wreck artefacts it may be difficult to know if diver activity is disturbing these sites.

Support initiatives for developing marine archive capacity in England: Consideration should be given to how TCE can support the much needed archive capacity for finds from the marine zone. Whether this is through the establishment of a maritime archaeological archives resource centre or a network of designated museums, this would improve the fate of artefacts from territorial waters. The current lack of any maritime comparative collections is hampering the development of research, by supporting archive capacity it would have a positive impact in this area. These facilities could also improve the deposition of finds reported through the BMAPA Protocol as a result of discoveries during aggregate dredging activity.

7. Concluding Remarks

This project has reviewed five different areas related to maritime archaeological archiving. Element one ‘Marine development roles and responsibilities’ has focused on development control situations and has a clear link to the issues raised within Element two ‘Archive deposition within the current system’ considering how information from development control projects is being made available through incorporation into national heritage databases. Further issues have been examined in Elements Three ‘Artefacts within marine aggregate licensing’, Four ‘Maritime archives within ports, harbours and estuaries’ and Five ‘Historic material and the Merchant Shipping Act’.

There are a number of ways that positive improvements are being made in relation to archiving, such as formalising development control responsibilities through new Marine Management Organisations, commissioning studies to review handling of digital archive material, new guidance on WSIs for renewables projects and the numbers of artefacts reported through the BMAPA Protocol, for example. However, the results of this research have highlighted a number of areas where archives from the marine zone are failing to reach publicly available museums, repositories or record centres.

At present, there is a failure to meet established best practice and guidance for archaeological archives which outlines five fundamental principles (see Brown 2007):

1. All archaeological projects must result in a stable, ordered, accessible archive.
2. All aspects of the archaeological process affect the quality of the resulting archive.
3. Standards for the creation, management and preparation of the archive must be understood and agreed at the beginning of any project.
4. Ensuring the security and stability of the archive is a continuous process and a universal responsibility.
5. A project has not been completed until the archive has been transferred successfully and is fully accessible for consultation.

This situation also means the UK is failing to fulfil some of its obligations under the Valletta Convention, and through its commitment to treat maritime archaeological heritage in line with the Annex of the UNESCO Convention for the Protection of Underwater Cultural Heritage.

If we fail to develop the capacity to provide secure, long-term repositories for the results of archaeological investigations within the marine zone, more of our maritime cultural heritage will be lost to researchers, members of the public, school children and community groups.

This report has put forward a range of recommendations for improvements or further work to progress initiatives; these require input from a wide range of stakeholders to implement them. While it is not the specific responsibility of TCE to help provide solutions to this situation, as seabed owners and managers there are wider marine stewardship issues at stake to which TCE can make a positive contribution. Through greater engagement with issues outlined in this report TCE can work with heritage agencies, government departments, developers, archaeologists, and museums and archive organisations to make a significant impact.

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9. Appendices

9.1 Securing a Future for Maritime Archaeological Archives: key project outcomes

Some of the key drivers for the MATCE project are the outputs of the SFMAA project. (The full results from all three stage of SFMAA can be downloaded from: <http://www.hwtma.org.uk/index.php?page=project-reports-and-downloads>). The outcomes of SFMAA most relevant for MATCE are presented below.

Element One: Mapping Maritime Collection Areas

Issues in Policy & Practice:

- Roles and responsibilities for archaeological archives from the marine zone are unclear. The absence of established routes for deposition is exacerbated by a lack of policy from UK level to local and regional museums;
- There are few receiving museums for large areas of the marine zone, meaning that archaeological best practice often cannot be adhered to. Survey showed having experience of maritime archives may make museum approaches to policy and collection more positive;
- Lack of understanding of the nature of ‘average’ maritime archives, and little guidance on their care and curation;
- There are no maritime reference collections or coordinated approach to collection; and
- Few archives from maritime archaeological investigations are currently being deposited, leading to a back-log problem that will continue to worsen within swift action.

Element Two: Review of Maritime Archaeological Archives and Access

Quantity of undeposited archives: key facts

Detailed responses to the online survey revealed the following numbers of type of archive not currently residing within public museums or archives:

- Objects – 48,864, Paper – 172,168, Photographs – 153,191, Video – 1,420, Sample – 4,358, Digital – 191,145

Additional summary information included thousands more archive elements, as well as over 30,000 artefacts from the RoW Amnesty report that are held in private collections.

Accessibility and security: key facts

- A small percentage of maritime archives are held within public museums and repositories;
- Private museums and exhibitions currently play an important role in making archives accessible to the public; and
- A large percentage of maritime archives have very uncertain long-term security.

Ownership, disposal and attrition of the seabed archive: key facts

- The salvage system means that historic objects are treated as ‘lost property’ rather than heritage assets;

- Regular, small scale recovery of artefacts from sites is gradually reducing the seabed archive with no consideration of the continued loss from historic assets;
- It is common for artefacts to be recovered from the seabed with the prime motivation being profit from their sale; and
- Significant shipwreck collections have been dispersed through sale without consideration of the regional or national significance of the collections.

Actions

- The continued inclusion of historic wreck material within the salvage regime (Merchant Shipping Act 1995) should be kept under review and amended when possible;
- Methods for encouraging the acquisition of historic material through the RoW system should be reviewed and developed; and
- Methods for reviewing the archaeological and historic significance of material, whether individual artefacts or collections, declared to the Receiver of Wreck should be assessed to ensure archive of regional and national importance is not being dispersed.

Element Three: Analysing Present and Assessing Future Archive Creation

During Element Three of the project there was consideration of the management and curatorial framework which involved liaison with TCE. This revealed a number of areas where there is a lack of clarity over expectations and practice in addition to demonstrating that TCE could play a role in determining the fate of maritime archaeological archives through influencing conditions on licences and consents and monitoring compliance with consents.

Particular relevant sections of the Element Three report have been included below to provide the background.

Extracts of report section on responses from Curators to Element Three survey questions:

Q: Where are marine archives currently deposited?

England: *Marine developers are advised that a copy of archaeological reports should be deposited with the National Monuments Record; this should be specified within individual conditions of consent or project briefs that are commented on by EH. For marine mineral extraction hard copy reports are deposited by the contractor at the NMR and an OASIS record should be produced.*

The situation in Scotland with the RCAHMS and National Museums of Scotland having clear responsibility for marine archives is not mirrored in England. While a copy of a project report may be deposited with the NMR, there is no current system which provides a facility within which full archives (including paper, photographic, digital and object archives) can be deposited.

Q: Is the deposition of archives defined in conditions of consent?

England: *For projects which require a licence through the Food and Environment Protection Act (FEPA) the Secretary of State (Defra) can attach conditions for archives. For work requiring a licence under the Protection of Wrecks Act archive deposition is a condition. Projects commissioned by EH should have archive considerations included within a project design. For any work outside of licensing regimes there is no mechanism of attaching conditions. EH indicated that within the FEPA and PWA licensing the responsibility for ensuring any condition of consent is followed through lies with the respective Secretary of State or Minister, it is these parties that would have to take any necessary enforcement action.*

From the responses provided it appears that archiving is included within some conditions of consent, but this depends on the type of work and regime through which the work is being undertaken. The long-term responsibility for the enforcement of conditions also appears to differ, with some question over where this responsibility lies.

The response to this question from EH has concentrated on marine development control work, and hence does not consider the broader range of archaeological projects being undertaken. It is interesting that EH has not registered an increase in archaeological archives considering the volume of marine development undertaken within the last five to ten years, particularly aggregates extraction, renewables and port and harbour development. This is in contrast to the amount of archive identified as being held by contractors due to a lack of receiving repositories and the industry responses (see section 5.3), particularly from the aggregates and renewables sector, which all indicate more archives are being produced. This indicates a systemic problem between curators, contractors and clients, which is affecting full archive deposition.

Although TCE are obviously planning for the Round Three renewables eg the Protocol contract and the requirement to make all data publicly available via Cowrie website are positive, there are still systemic issues to address about roles and responsibilities and requirements for deposition of physical archives from projects/ sites.

The MFA do not check whether deposition of archives has been undertaken, although some operators send them copies of the OASIS forms that have been filled out. They are unsure where any items of historic interest go if they are discovered. They rely on updates from the operators and English Heritage to tell them if anything significant is found. They do not get directly involved with finds but leave this to EH.

Report section on responses from The Crown Estate to Element Three Survey Questions:

As the seabed owner for the majority of the offshore area The Crown Estate (TCE) plays a key role in the management of all aspects of this estate, which includes influencing marine archaeological archiving. Responses to the Element Three questions were kindly provided (see Appendix 10.4.1).

TCE provided a comprehensive list of activities that are currently being undertaken below the low water mark. These included aggregate dredging, port and harbour

maintenance and capital dredging, land reclamation, renewables and cable and pipeline installation. TCE expect any work carried out to be to industry best practice standards, although they do not specifically regulate these activities themselves, and rely on the Statutory Consultees to recommend the conditions on consent.

When queried about whether archives generated from work were being deposited within museums or repositories TCE highlighted their involvement in the BMAPA Protocol for reporting finds of archaeological interest, although indicated it was currently unclear whether these artefacts were deposited in museums. Interestingly, finds are considered to be the property of the aggregate company due to the principle of the company having paid for the aggregates. ('Of related interest, TCE issues permits for metal detecting on the foreshore and it is a requirement of the permit that the holder must report all archaeological finds to the Portable Antiquities Scheme and follow the *Code of Practice for Responsible Metal Detecting in England and Wales* at all times'). For commercial work undertaken as part of Environmental Statements TCE expect archive generated from this to be deposited in a public repository, although again it is unclear whether this is currently happening.

TCE indicate there are few instances where archives are referred to specifically within any conditions of consent or licence, and it is currently unclear if and where archives are being deposited. Although one exception to this are the conditions being provided for Round Two renewables when all data gathered must be made publicly available through the COWRIE website (www.offshorewindfarms.co.uk). While this is not strictly a heritage repository it does provide an example of good practice for making large amounts of digital data available. For projects undertaken with funding through TCE Marine Communities Fund there is not a specific requirement to archive results, but they would expect best practice to be followed.

TCE have noticed an increase in the archaeological input and assessment within the ES process and also the evolution of regulatory practice. They also feel that marine archaeology has a higher profile and there seem to be more organisations working within the discipline. Future large projects and schemes likely to increase volumes of archive include port development, particularly Shellhaven and Felixstow, and ongoing aggregates extraction and renewables.

TCE does not have any specific policy on archaeological projects generating archives, or for seabed recoveries for which they may have title, instead they would refer to the relevant professional best practice. Further questions were asked in relation to TCE's role within the Receiver of Wreck system, when there are no known owners of seabed assets, such as older shipwrecks and all prehistoric archaeological material, since they could have a key role to play in the potential long-term curation of these resources. In general TCE, where practical, would encourage artefacts to be retained for public interest. Through the Merchant Shipping Act (1995) 'Wreck from UK waters which remains unclaimed at the end of one year, becomes the property of the Crown (or grantee of the Crown such as the Duchy of Cornwall)..... If wreck from UK territorial waters is unclaimed at the end of one year, the Receiver will dispose of the find on behalf of the

Crown' (MCA 2007). In this instance 'on behalf of the Crown' relates to the Crown in its broader sense rather than the Crown Estate.

The RoW was able to confirm (*pers comm.*) that TCE does not have involvement in the Crown's right to unclaimed wreck. "Where wreck material becomes unclaimed wreck and property of the 'Crown', the Receiver of Wreck disposes of it on behalf of the Crown and any net profits (after fees, costs, awards etc are deducted) are paid to the Consolidated Fund i.e. they go back to the Treasury". In practice, the RoW does not profit from this function and does not know when the Consolidated Fund would last have received any money from wreck. The RoW does deal with TCE "in relation to ownership of the foreshore and seabed and issues of recovery of wreck, gifted rights to unclaimed wreck, Lords of the Manor claims etc. and also in our role as administrators of the Royal Prerogative for Fishes Royal, but they do not represent the Crown in terms of unclaimed wreck".

9.2 Organisations Responsible for Marine Heritage Management

Within the UK a number of different organisations and institutions have responsibility for heritage management and consultation. Many of those that have responsibility for terrestrial affairs also have a remit for maritime heritage. Additionally, there are a number of organisations/institutions that have a purely maritime remit. These bodies range from UK wide governmental departments, through devolved heritage bodies to special interest advisory groups. The basic remit and role of this wide variety of organisations, institutions, civil servants and individual citizens in relation to maritime heritage in the UK is briefly described below. Despite the range of organisations/institutions that are concerned with heritage protection there are still elements of maritime heritage that fall outside of these roles or remits, which has had an impact on the deposition of archaeological archives from the marine zone (also see Section 1.5). However, areas of responsibility are constantly evolving, in conjunction with the ongoing development of accompanying legislation. This means the Scoping Study for a Heritage DAC is being undertaken at a time of review and change and has the potential to influence the long-term development of heritage archiving solutions.

UK wide Governmental Departments and Bodies

Department for Culture Media and Sport

The Department for Culture Media and Sport (DCMS) is the UK Government department responsible for a wide range of policy relating to activities as diverse as press regulation, the Olympic Games and gambling. The Secretary of State for Culture, Olympics, Media and Sport is responsible for the listing of historic buildings and scheduling ancient monuments in England. The Secretary of State is also responsible for wreck designation in UK territorial waters adjacent to England and Northern Ireland on the basis of advice received from the Heritage Bodies situated in those countries. This designation responsibility has been devolved to Scottish and Northern Irish Ministers and the Welsh Assembly Government (for more information see www.culture.gov.uk). DCMS used to

fund the now disbanded Museums, Libraries and Archives Council which was its strategic advisor on these areas, many of these functions are now transferred to the Arts Council England. In relation to marine digital archives DCMS are likely to call on expertise of the relevant devolved nations' heritage representatives or other specialist advisors.

Receiver of Wreck

The Receiver of Wreck (RoW) administers cases of salvage of wreck material across the whole of the UK. Their aim is to ensure that the interests of both the salvor and the owner are considered. This covers UK territorial waters as well wreck landed in the UK from outside UK territorial waters, the remit extends to tidal waters, but does not cover lakes. The RoW is based within the headquarters of the Maritime and Coastguard Agency, located in Southampton. The advent of sports diving has led to an increasing focus on the salvage of underwater cultural heritage. Consequently the RoW takes an active role through liaison with partner organisations (eg, NAS, JNAPC) and through education schemes aimed at the diving community (see www.mcga.gov.uk/c4mca/mcga-receiverofwreck.htm). The recoveries of historic wreck produce records which should be passed on to the relevant national heritage data holders, these records will need to be considered during the Scoping Study for a marine heritage DAC.

Devolved Heritage Bodies

English Heritage

English Heritage (EH) was established in 1984 and is the Government's statutory advisor on the historic environment within England. EH has the responsibility for listing historic buildings and scheduling historic sites and monuments of national importance. In either case, EH is also responsible for maintaining both the List and the Schedule. As a result of the National Heritage Act 2002 (see below), EH provides advice and recommendations to the DCMS relating to the marine historic environment, with statutory responsibilities in UK territorial waters adjacent to England (see www.english-heritage.org.uk). EH provides guidance on best practice in relation to marine archaeological projects through publications and activities. It also advises on conditions for consent through the development control process, licence applications for designated wrecks and research project designs for which they are providing funding. Through these processes, EH play a significant role in the generation and deposition of marine heritage archives.

In England, the National Record of the Historic Environment (NRHE) records the historical and archaeological dimension of the marine environment (as well as the terrestrial historic environment) and is considered to be one of the largest publicly accessible archives in the UK. The NRHE is English Heritage's publicly available dataset. The NRHE was formerly known as the National Monument Record (NMR) and prior to that 'The Inventory', however, the term NMR is now only being used as a brand name for material within the archive. It is based at English Heritage offices in Swindon where it has public search rooms. The NRHE records are also accessible online via PastScape which is a quick and easy way to search nearly 400,000 records held in the national historic environment database, finding information on archaeological, architectural and maritime wrecks, casualties (documented losses), submerged

landscapes, anomalies and aircraft amongst others (<http://pastscape.english-heritage.org.uk/>). English Heritage curates the NRHE. English Heritage archives has, on occasions, acquired maritime archives of national scope such as the Archaeological Diving Unit (ADU) archive.

Historic Scotland

Historic Scotland (HS) was formed in 1991 and is now an executive agency of the Scottish Government. HS advises Scottish Ministers on all aspects of the historic environment within Scotland. It is also responsible on behalf of Scottish Ministers for administering devolved heritage protection legislation, for example the scheduling of monuments of national importance, listing of historic buildings and designation and licensing of wreck sites in UK territorial waters adjacent to Scotland under section 1 of the Protection of Wrecks Act 1973 (see www.historic-scotland.gov.uk). The Scottish Government supports MEDIN to encourage better data management across the marine sector. As a result, Historic Scotland and the Royal Commission for the Ancient and Historical Monuments of Scotland (RCAHMS) have agreed to signed up to the MEDIN data archiving principles (see Hwtma 2009b).

Royal Commission for the Ancient and Historical Monuments of Scotland

The Royal Commission for the Ancient and Historical Monuments of Scotland (RCAHMS) was originally founded in 1908 and renewed in 2000. RCAHMS is the designated archive for all archaeological records (including maritime). Paper and digital archives is deposited within the RCAHMS and the material archives are generally held by the National Museums of Scotland. RCAHMS maintains *Canmore* (the National Monuments Record for Scotland) and is charged with the task of extending the NMRS to offshore areas (see www.rcahms.gov.uk).

CADW

CADW (the Welsh word meaning ‘to keep’) is the historic environment service of the Welsh Assembly Government. CADW is responsible for the scheduling of historic sites and monuments of national importance and for listing historic buildings. As a result of the National Heritage Act 2002, CADW has responsibility for making decisions relating to the designation and licensing of wreck sites in UK territorial waters adjacent to Wales. CADW also advises the Welsh Assembly Government regarding the conditions imposed by the licensing of offshore development (see www.cadw.wales.gov.uk)

Royal Commission for the Ancient and Historical Monuments of Wales

The Royal Commission for the Ancient and Historical Monuments of Wales (RCAHMW) was originally founded in 1908 and renewed in 2000. RCAHMW maintains the National Monuments Record for Wales (NMRW) and is charged with the task of extending the NMRW to offshore areas (see www.rcahmw.gov.uk). The Royal Commission holds a unique collection of photographs, maps, images, publications and reports within its archive, the National Monuments Record of Wales, which can be consulted via the online database Coflein (<http://www.coflein.gov.uk/>). There is also available Core Archaeological Record Index (CARN) which is a national information

resource for archaeology and architecture compiled by archaeological organisations across Wales (<http://carn.rcahmw.org.uk/>).

Northern Ireland Environment Agency

The Northern Ireland Environment Agency (NIEA) is part of the Department of Environment (DoE) within the Northern Ireland Government. Within the NIEA the *Built Heritage Directorate* has responsibility for the management of the historic environment. This includes managing the protection of monuments and for maintaining the Northern Ireland Sites and Monuments Record (NISMR). Maritime heritage is not included within the NISMR and is instead contained within a separate Maritime Record, currently maintained in partnership with the Centre for Maritime Archaeology (CMA) at the University of Ulster. The CMA holds a wreck database, which has recently been updated, separating records compiled from the UKHO database and those from sports diver reports. There is also an online database for shipwrecks which has been compiled by sport divers (see <http://www.irishwrecksonline.net/>).

Coastal and intertidal sites are included within the Northern Ireland Sites and Monuments Record which can be accessed online via the Northern Ireland Environment Agency website (<http://www.ni-environment.gov.uk/other-index/content-databases/content-databases-ambit.htm>). Currently, there is not a centralised database for submerged prehistoric landscapes. However, there is some information available online for intertidal peat sites at the Northern Ireland Earth Science Conservation Review webpage (<http://www.habitas.org.uk/escr/>). Although useful, this information is primarily geological and biological rather than archaeological.

It is pertinent to mention that recently, it has been announced that from 1st April 2011, NIEA is suspending its current programme on maritime archaeology. The contracted team at the CMA at the University of Ulster is to be redeployed until further notice on mitigating the impacts of climate change on the built heritage in Northern Ireland.

9.3 Archive Obligations within Valletta and UNESCO Conventions

In addition to UK and devolved nations legislation and guidance there are a number of international agreements which shape national policy. The two key international conventions which have a bearing on archaeological archives are the Valletta Convention and the UNESCO Convention on the Protection of Underwater Cultural Heritage.

9.3.1 Valletta Convention

The European Convention on the Protection of the Archaeological Heritage (Revised) was signed at Valletta in January 1992 and replaced the 1969 European Convention for the Protection of the Archaeological Heritage. The Valletta Convention was ratified by the UK Government in 2000 and came into force on 21 March 2001.

The Convention defines the notion of archaeological heritage very broadly as comprising “all remains and objects and any other traces of mankind from past epochs”. Furthermore the archaeological heritage is said to include “structures, constructions, groups of

buildings, developed sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or under water.”

The Articles of the Convention tackle various aspects. Article 1 deals with the inventory and protection of sites and areas, Article 2 deals with the mandatory reporting of chance finds and providing for “archaeological reserves” on land or underwater. Article 3 promotes high standards for all archaeological work which should be carried out by suitably qualified people and Article 4 requires the conservation of excavated sites and the safe-keeping of finds. Article 5 is concerned with consultation that should take place between planning authorities and developers to avoid damage to archaeological remains.

This convention binds the UK to implement protective measures regarding the archaeological heritage within its jurisdiction, which would include the Continental Shelf. The implementation of the Valetta Convention is the responsibility of the Home Country Heritage Agencies each within their area of authority.

There are many aspects of the Valetta Convention that the UK heritage management systems support and comply with. However, there are a number of clauses where the current system related to maritime archaeological archives and their management may not be complying with obligations within the Convention. Specific areas with an impact on the management, collection and care of maritime archives have been reviewed and are included below:

Within the *Identification of the Heritage and Measures for Protection* section, the following articles and clauses are relevant:

Article 2 states:

Each Party undertakes to institute, by means appropriate to the State in question, a legal system for the protection of the archaeological heritage, making provision for:

iii. the mandatory reporting to the competent authorities by a finder of the chance discovery of elements of the archaeological heritage and making them available for examination.

Article 3 states:

To preserve the archaeological heritage and guarantee the scientific significance of archaeological research work, each Party undertakes:

iii. to subject to specific prior authorisation, whenever foreseen by the domestic law of the State, the use of metal detectors and any other detection equipment or process for archaeological investigation.

Article 4 States:

Each Party undertakes to implement measures for the physical protection of the archaeological heritage, making provision, as circumstances demand:

- iii. for appropriate storage places for archaeological remains which have been removed from their original location.

Within the *Integrated Conservation of the Archaeological Heritage* Section

Article 5 States:

Each Party undertakes:

- vii. to make provision, when elements of the archaeological heritage have been found during development work, for their conservation *in situ* when feasible;

Within the *Financing of archaeological research and conservation* Section

Article 6 States:

Each Party undertakes:

- ii. to increase the material resources for rescue archaeology:
 - a. by taking suitable measures to ensure that provision is made in major public or private development schemes for covering, from public sector or private sector resources, as appropriate, the total costs of any necessary related archaeological operations;

9.3.2 UNESCO Convention

The UNESCO Convention on Underwater Cultural Heritage was approved at the plenary of the UNESCO General Conference in 2001. This convention furthers the idea of protection for "objects of an archaeological and historical nature" which has been codified under Articles 149 and 303(1) of UNCLOS through a comprehensive set of provisions that cover both finds and geography.

On 2nd January 2009 the convention was ratified by a sufficient number of countries (twenty) to become international law. This is applied to all countries that have ratified the Convention. Although the UK Government has not ratified the convention it has indicated that it recognises the importance of the Convention in the protection of the underwater cultural heritage. Further it has stated that the UK Government supports the implementation of the provisions of the Annex (see British government statement circulated by Foreign and Commonwealth Office on 31 October 2001).

Specific implications for archaeological archives within the Convention Annex have been examined. A number of the Rules of the Annex make reference to curation and archiving, in addition to there being a specific sub-section (XIII) which covers 'Curation of Project Archives'.

Section II of Annex: Project design

Rule 9. Prior to any activity directed at underwater cultural heritage, a project design for the activity shall be developed and submitted to the competent authorities for authorization and appropriate peer review.

Rule 10. The project design shall include:

- (a) an evaluation of previous or preliminary studies;
- (b) the project statement and objectives;
- (c) the methodology to be used and the techniques to be employed;
- (d) the anticipated funding;
- (e) an expected timetable for completion of the project;
- (f) the composition of the team and the qualifications, responsibilities and experience of each team member;
- (g) plans for post-fieldwork analysis and other activities;
- (h) a conservation programme for artefacts and the site in close cooperation with the competent authorities;
- (i) a site management and maintenance policy for the whole duration of the project;
- (j) a documentation programme;
- (k) a safety policy;
- (l) an environmental policy;
- (m) arrangements for collaboration with museums and other institutions, in particular scientific institutions;
- (n) report preparation;
- (o) deposition of archives, including underwater cultural heritage removed;
- and
- (p) a programme for publication.

Section V of Annex: Funding

Rule 17. Except in cases of emergency to protect underwater cultural heritage, an adequate funding base shall be assured in advance of any activity, sufficient to complete all stages of the project design, including conservation, documentation and curation of recovered artefacts, and report preparation and dissemination.

Section XIII of Annex: Curation of project archives

Rule 32. Arrangements for curation of the project archives shall be agreed to before any activity commences, and shall be set out in the project design.

Rule 33. The project archives, including any underwater cultural heritage removed and a copy of all supporting documentation shall, as far as possible, be kept together and intact as a collection in a manner that is available for professional and public access as well as for the curation of the archives. This should be done as rapidly as possible and in any case not later than ten years from the completion of the project, in so far as may be compatible with conservation of the underwater cultural heritage.

Rule 34. The project archives shall be managed according to international professional standards, and subject to the authorization of the competent authorities.

9.4 Review of Example Conditions on Consents

9.4.1 Case Study Examples: England

Cowes Outer Harbour Project (MMO EIA Consent Decision: MMO Ref DC 8764 & DC 8765)

Development summary: construction of new breakwater, marina development, dredging of new channel.

States that ES discussed impact on marine historic/ archaeological environment. The ES was sent to EH for consideration, in addition to IoW Council (who has archaeologists that input into coastal matters, although it is not clear if they did so in this case).

EH response: The proposed marina works will have no implications for any designated aspects of the historic environment, including protected wrecks, and will have no appreciable visual impact on West Cowes Conservation Area. On the basis of available baseline data I have no objection to this application, although it is recommended that it is supported by a full Heritage Statement, including currently available survey data together with a desk-based assessment and impact assessment.

Conditions: This response was interpreted by the MMO as not requiring any specific conditions on the consent.

Potential impact on archives: the MMO have not translated the EH recommendation of a full heritage statement, which may have helped ensure appropriate investigation of archaeology and resulting archive deposition, into a condition of consent.

Southampton Capital Dredge and Quay Wall Construction, Berths 201-202 (MMO reference DC 8590 and DC 8591)

Development Summary: Capital Dredge of 182,000 cubic metres and Quay Construction.

The summary does not identify archaeology or heritage as one of the potential impact, however, one of the bullet points in this section just states 'marine and coastal' and appears to have been cut off.

EH Response: Response: English Heritage has attended meetings with the applicant and discussed the project proposal and addressed archaeological issues.

Regulator's comment: The Agency has considered the advice from EH and endorsed the need for conditions to be attached to any licence/consent which it may issue as follows. (See conditions).

Conditions: The licence holder must ensure a Written Scheme of Investigation and a report protocol is produced for any discoveries made during the execution of this project.

Regulator's comments: On discussion with ABP and secondary consultation with archaeological department of Southampton City Council, the condition was rectified as follows.

Condition: The licence holder must ensure any archaeological findings are reported to the archaeological unit of Southampton Council: Southampton Archaeology Unit, 93 French Street, Southampton, SO14 2DY.

Potential impact on archives: The revision of the condition appears to reduce the archaeological requirement within this project. The condition that the licence holder must ensure any archaeological findings are reported to the Southampton Unit makes it very unclear as to the whether archaeological work will be within a written scheme, or whether any archaeological work will be undertaken at all.

Teesport QEII Berth Development (MFA Ref. DC 8651)

Development Summary: Quay development and associated capital dredge of up to 36,000 cubic metres. ES identified archaeology and cultural heritage as potentially being impacted.

EH Response: EH advised that a Written Scheme of Investigation (WSI) and a protocol for the reporting of any archaeological material of interest encountered in the delivery of this project are prepared with the relevant statutory archaeologist, Tees Archaeology and that they are also agreed with EH themselves prior to the initiation of any delivery of this project.

EH took issue with the conclusion of section 15.3 (Potential impacts during the operational phase) because should subsequent detailed site examination (as prescribed by an agreed

archaeological Written Scheme of Investigation) reveal the presence of archaeological material then it may be necessary to place further mitigation and monitoring obligations to ensure that the operational phase of this project does not jeopardise any such site.

Company response: As stated in the mitigation measures described in Section 15.4.1 of the QEII ES: “borehole data from a proposed Geotechnical Investigation will be examined. Should this data indicate the existence of suitable sediments, further sampling and assessment may be required. The specific sampling strategy would be discussed in detail during the preparation of a Written Scheme of Investigation with the relevant statutory archaeologist, Tees Archaeology”. This would also be agreed with English Heritage.

Conditions: The Licence Holder must prepare and agree an archaeological Written Scheme of Investigation in consultation with the local statutory archaeological body: Tees Archaeology.

Potential impact on archives: In this instance it appears that archaeological recommendations are being appropriately transferred into conditions, however, it is noticeable that EH asks for the scheme to be agreed by them after it has been prepared in ‘consultation’ with Tees Archaeology, but the condition only states agreement and consultation with Tees Archaeology rather than English Heritage.

9.4.2 Case Study Examples: Scotland

Windfarm, Robin Rigg, Solway Firth

Development Summary: Construction of 60 wind turbines in the marine zone.

HS Response: No detail available.

Conditions: 6.3 The Development shall be constructed in accordance with the details contained in the Application and the Environmental Appraisal Report.

6.7 No later than 4 months after the date of this consent and before Commencement of the Development, the Companies shall provide detailed plans and schemes of work for all proposed monitoring and mitigation works for the approval of the Scottish Ministers. These plans and schemes of work shall be implemented by the Companies in accordance with any approval given. Reason: to ensure compliance with all commitments made in the environmental statement that the wind farm will be constructed and operated in a manner which avoids adverse impact on the ecology in its vicinity.

Potential impact on archives: there is no specific mention of archaeology and heritage within the available documentation; however, it is assumed this would be included within the Environmental Appraisal.

Wave Energy Scheme Siadar, Western Isles (Documents 0076500 & 0076497)

Development Summary: breakwater construction to contain wave energy devices. There are two documents which refer to the same development available.

Heritage Response: Comhairle nan Eilean Siar supported the development subject to a number of conditions which included the requirement for a Construction Method Statement to ensure proper management of the development. The Comhairle recommended that suitable experts be appointed in order to ensure that archaeological, ecological and marine mammal monitoring is carried out appropriately.

Conditions: 5.9. Prior to the Commencement of the Development, the Company shall appoint a suitably qualified archaeologist, ecologist and marine mammal observer subject to the approval of Scottish Ministers. The role of these persons should be clearly conveyed to all personnel before their commencement of work on the Site.

Reason: To ensure proper management of the development.

5.10 The Company shall afford access on the Site at all reasonable times to the appointed

Archaeologist, ecologist and marine mammal observer (and/or to their nominees) and shall allow them to observe work in progress and record items of interest and finds. Notification of the commencement date shall be given by the Company to the archaeologist, ecologist and marine mammal observer in writing not less than 14 days before Commencement of the Development. Thereafter throughout the duration of the construction works a weekly written notification of the proposed programme of works for the following four weeks or for a period to be agreed beforehand in writing with the Scottish Ministers, shall be submitted to the archaeologist, ecologist and marine mammal observer. Any concerns raised by the archaeologist, ecologist and marine mammal observer over the programme or methods of working shall, in the first instance, be referred to the Company and, if not resolved by mutual agreement, shall be referred to Scottish Ministers.

Reason: To ensure proper management of the development and proper recording and protection of items of archaeological or ecological interest.

Archaeology

6.24 No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation ("the Scheme") which has been submitted by the applicant and approved by the Planning Authority. The Scheme shall specify the appointed archaeological contracting company, their staffing and qualifications, and set out measures for the preservation, interpretation and recording of archaeological remains on the application site and, as a minimum shall make provision for the following:

- (i) An advance 10% evaluation on top soil/peat strip in all excavated areas below 250m AOD, including cabling, access tracks, borrow pits, crane hard standings, control building and any other ground disturbance works;
- (ii) Advance 10% evaluation of the area of any development within 20m of the visible edge of any archaeological remains regardless of elevation AOD;
- (iii) Provision for the excavation of identified sites, or preservation in situ and appropriate re-routing/relocation' of elements of the development as appropriate;
- (iv) A full watching brief on all remaining unexcavated areas of ground disturbance;
- (v) Provision for the paleoenvironmental sampling of any basins located during the stripping of top soil/peat, an appropriate sampling for other purposes, including but not limited to, dating, species identification and soil micromorphology;
- (vi) The recording of archaeological remains which are not to remain in situ and the disposal of finds via the Scottish Archaeological Finds Allocation Panel as required by law;
- (vii) Appropriate arrangements for the publication of results of the archaeological work.

Reason: To protect cultural heritage.

6.25 No development shall take place until fencing has been erected, in a manner to be agreed with the Planning Authority, to protect identified sites of archaeological importance which may be near the development during construction and no works shall take place within the area inside that fencing without the prior agreement of the Planning Authority.

Reason: To protect cultural heritage.

6.26 The developer shall afford access at all reasonable times to the Planning Authority Archaeologist or such other archaeological organisation acceptable to the Planning Authority and to the archaeological officer appointed pursuant to the Scheme, and shall allow them to observe work in progress and record items of interest and finds. Information as to whom the Planning Authority Archaeologist or other archaeological organisation should contact on Site shall be given to the Planning Authority in writing not less than 14 days before development commences.

Reason: To protect cultural heritage.

Potential impact on archives: There are extensive conditions related to archaeology included within the consent, they are the most detailed of any of the documentation consulted. The

conditions outline very clearly what archaeological work should be undertaken. In terms of archiving of the results of this work, condition 6.24 (vii) states that ‘Appropriate arrangements for the publication of results of the archaeological work’ should be in place. This should ensure full dissemination of results. The preceding condition also indicates finds must be disposed of via the Scottish Archaeological Finds Allocation Panel as required by law; this should lead to deposition within museums.

9.4.3 Case Study Examples: Wales

Holyhead Jetty Extension, Anglesey, Wales (Ref: PCP10/7/2)

Development Summary: 245m jetty extension and associated capital dredge

Heritage Response/ recommendations: Cultural Heritage: With respect to known or potential marine historical assets, such as shipwrecks or submerged prehistoric land surfaces; this should require geophysical survey along the operating area and any adjacent areas likely to be affected by drilling, blasting or dredging. This could be supplemented by archaeological analysis of coring or grab samples. Information on the impact to designated structures (Breakwater and Lighthouse) both direct, indirect and impact on their setting – for example future alterations in scour or silting. Results of such work should be shared with the Royal Commission on the Ancient and Historical Monuments for Wales (RCAHMW) to inform the archaeological record.

A staged evaluation process is recommended to provide direct evidence of the actual presence (or absence) of archaeological remains, thus increasing confidence in the measures envisaged to reduce any adverse effect.

Potential Impact on Archives: although this is a scoping opinion there is clear instruction on the archaeological work expected in advance of development. Such clear guidance should result in the deposition of archaeological archive appropriately.

9.5 Dredge Finds Donated to Museums

Data compiled by RoW

MCA DROIT NO.	BMAPA PROTOCOL NO.	DESCRIPTION OF FIND	MUSEUM CONTACTED	OUTCOME
290/08 – DROIT CLOSED	UMA_0194	1 x Part of aircraft tail wheel unit built by Dowty for a WWII Hawker Hurricane, built in Canada. Tail wheel unit includes inscription of manufacturer's details 'Dowty Equipment Limited, Montr'.	Frinton & Walton Heritage Trust	donated aircraft tail wheel to Frinton & Walton Heritage Trust.
295/08 – DROIT CLOSED	Hanson_0188	Part of an Aircraft Tail Wheel built by Dowty in Canada for a World War II Hawker Hurricane.	Frinton & Walton Heritage Trust	donated aircraft tail wheel to Frinton & Walton Heritage Trust.
114/08 – DROIT CLOSED	UMA_0176	Copper alloy nail measuring 18cm (7") in length, with a diameter of about 2cm (5/8").	Education & Outreach Hants & Wight Trust	Donated to HWTMA
185/08 – DROIT CLOSED	UMA_0166	2 Metal objects, thought to be associated with a vessel. One object was thought to be a possible fitting to do with the rowing or steering on a vessel, or maybe a comparator - an adjustable instrument for making repeated checks on the dimensions of a particular class of things. The second object represents part of a ship's gimble lamp dating from the 20th century and was used by the Royal Navy during WW1.	Education & Outreach Hants & Wight Trust	Donated to HWTMA
125/08 – DROIT CLOSED	Hanson_0179	A hinge that appears to be made of copper alloy and measures approximately 14cm in width and 22cm in length. Richard Noyce from the Royal Naval Museum suggested that the hinge may have come from a vessel, representing the hinge of a hatch or scuttle (porthole) of a vessel. Although the hinge has not been conclusively identified, its robust nature could well indicate that it derives from a vessel, providing a strong seal for watertight compartments.	Education & Outreach Hants & Wight Trust	Donated to HWTMA
104/08 – DROIT CLOSED	UMA_0173	A patent log rotator approximately 35cm long. It is made from a copper tube with welded on fins, and the revolving brass spigot is now seized. This artefact most likely dates to the 19 th – 20 th century, although it could be as early as the 18 th century.	Frinton & Walton Heritage Trust	Donated to Frinton & Walton Heritage Trust
071/08	UMA_0140	Cannon ball believed to have derived from the Anglo-Dutch wars and is thought that this cannon ball may derive from one of two naval battles, the Battle of Lowestoft in 1665 and the Battle of Sole Bay in 1672.	New Forest Coastal Heritage Education and Handling Collection	Donated to New Forest Coastal Heritage Education and Handling Collection
072/08	UMA_0141	Cannon ball believed to have derived from the Anglo-Dutch wars and is thought that this cannon ball may derive from one of two naval battles, the Battle of Lowestoft in 1665 and the Battle of Sole Bay in 1672.	New Forest Coastal Heritage Education and Handling Collection	Donated to New Forest Coastal Heritage Education and Handling Collection
107/08 – DROIT CLOSED	UMA_0096	A brass plate inscribed with the words 'portable connection for port bow light'.	Isle of Wight Heritage Service	Donated to Isle of Wight Heritage Service.
278/09 – DROIT CLOSED	Kendalls_0214	A thin circular metal object with two small holes and made of copper, is thought to be the lid of a cooking pot or kettle; the two holes being used to attach a handle. A corroded iron object which has been identified as a heavily worn down	Isle of Wight Heritage Service and Handling Collection Wessex Archaeology	Finds have now been donated to Wessex Archaeology Handling Collection.

MCA DROIT NO.	BMAPA PROTOCOL NO.	DESCRIPTION OF FIND	MUSEUM CONTACTED	OUTCOME
		<p>drill bit.</p> <p>A small iron object with indented ends and has been identified as possibly being used to space pipes as they are being installed or repaired onboard vessels.</p> <p>A heavy metal alloy object which was originally thought to be a lead ingot, however due to the unusual shape with the flat imprint along one of the surfaces, other possible functions were explored. As a result, MCPS Limited, a specialist company that design and manufacture cathodic protection and marine growth prevention systems, positively identified the object as a sacrificial anode.</p> <p>An object made of shale, which prior to its current damage would have been a flat oval shape with a worked rounded outer edge.</p>		
235/08 – DROIT CLOSED	Hanson_0190	A fire or refractory brick which could have been used to line kilns, ovens and boilers.		Offered to finder in lieu of salvage.
233/08	Hanson_0184	2 Possible shell casing lids		
261/08		Part of a patent or selft-recording ship's log.	New Forest Coastal Heritage and Education Handling Collection	Donated to New Forest Coastal Heritage Education and Handling Collection.
268/08	UMA_0197	Vis Pistol	New Forest Coastal Heritage Education and Handling Collection	Donated to New Forest Coastal Heritage Education and Handling Collection
267/08	UMA_0196	A find made of brass and bears the words 'Auto Klean Oil Strainer – rotate spindle to clean'	New Forest Coastal Heritage Education and Handling Collection	Donated to New Forest Coastal Heritage Education and Handling Collection.
266/08	Hanson_0191	An angled section of steel work which may have been used on a vessel as ballast or as an anchor for nets or lobster pots.	Norfolk Museums & Archaeology Service and Time & Tide Museum	
265/08	UMA_0192	An iron plate that bears the letter 'Simpson Lawrence and Co Glasgow Tarbert Pump'.	IOW Heritage Service	
282/08	UMA_0199	An iron cannon ball measuring approximately 5 ½ inches in diameter. Experts believe that this cannon would have been fired by either a culverin if it is an early example, or an eighteen pounder, if it is a later example.	IOW Heritage Service.	
068/08	Kendall_0130	Admiralty Telescope inscribed with 'W. Ottway and Co. Ltd Ealing London 1944 No. 6445'.	Portsmouth Royal Naval Museum, also IOW Heritage Service	
066/08 – DROIT	Hanson_0125	Admiralty pattern anchor. A type of anchor often nicknamed the 'common	Tried to place the anchor with the	None of the parties contacted were

MCA DROIT NO.	BMAPA PROTOCOL NO.	DESCRIPTION OF FIND	MUSEUM CONTACTED	OUTCOME
CLOSED		stock' anchor, introduced in Britain in 1841 by Admiral Sir William Parker.	following:- Museum of Wales, Southampton City Council and Dinas Powys Council.	interested so passed title to finder in lieu of a salvage award.
205/08 – DROIT CLOSED	UMA_0163	Cannon ball which is approximately 130mm diameter with 1/3 ball missing. Possibly from first and second rate vessels at the time of Anglo-Dutch wars.	Contacted Norfolk Museum Service and Time and Tide Museum who did not wish to take the find, then contacted Wessex Archaeology Handling Collection to see if interested.	UMA have donated find to Wessex Archaeology Handling Collection. Droit closed 17 th June 2010.
108/08 – DROIT CLOSED	UMA_0102	Concreted Cannon ball located in an area in which two naval battles are known to have occurred - The Battle of Sole Bay 1672 and the Battle of Lowestoft 1665 (Anglo-Dutch wars).	Contacted Norfolk Museum Service and Time and Tide Museum who did not wish to take the find, then contacted Wessex Archaeology Handling Collection to see if interested.	UMA have donated find to Wessex Archaeology Handling Collection. Droit closed 17 th June 2010.
098/08 – DROIT CLOSED	UMA_0145	Cannon ball again thought to be connected to the two naval battles of the Anglo-Dutch wars as mentioned in the previous find above.	Contacted Norfolk Museum Service and Time and Tide Museum who did not wish to take the find, then contacted Wessex Archaeology Handling Collection to see if interested.	UMA have donated find to Wessex Archaeology Handling Collection. Droit closed 17 th June 2010.
097/08 – DROIT CLOSED	UMA_0146	2No. Cannon balls also thought to be connected to the previously mentioned Anglo-Dutch war battles in the area.	Contacted Norfolk Museum Service and Time and Tide Museum who did not wish to take the find, then contacted Wessex Archaeology Handling Collection to see if interested.	UMA have donated find to Wessex Archaeology Handling Collection. Droit closed 17 th June 2010.
042/10 – DROIT CLOSED	UMA no. not provided	A First World War service revolver – a Webley Mark VI	Marlipins Museum was not interested in find so UMA have donated it to the New Forest Coastal Heritage Education and Handling Collection.	UMA have donated find to the New Forest Coastal Heritage Education and Handling Collection. Droit closed 19 th August 2010.

9.6 Port, Harbour and Estuary Management Documents

9.6.1 Solent Management Plans & Cultural Heritage

Estuaries:

Medina Estuary Management Plan, 2000

'Historical and Cultural Resources' is a topic within the plan. Plan includes a comprehensive summary of the various cultural heritage within the estuary before outlining Actions and associated objectives.

- Heritage objective 1 – To safeguard the cultural resource
- Heritage objective 2 – To promote survey, research and integrate historic information and data to achieve a thorough understanding of the historical and archaeological interest of the estuary

A number of recommendations and actions to achieve this objective would have an impact on maritime archives:

- Improve liaison between oyster fishermen and dredging operators to ensure that all archaeological finds are recorded. Action: Raise awareness of Joint Nautical Archaeological Policy Committee Voluntary Code of Conduct between archaeological and dredging operators
- Introduce watching briefs for dredging operations which are carried out in new or sensitive areas. Action: To be arranged by the Estuaries Officer and IWC Archaeology Service

- Heritage objective 3 – To promote a better understanding of the man made heritage resource

Recommendations and action include:

- Provision for the conservation and storage of heritage materials within the museum framework to ensure long term preservation and accessibility of the resource for educational and leisure purposes. Action: Ongoing through the IWC Archaeology Service

Western Yar Estuary Management Plan, revised 2004

There is a brief consideration of the historic environment resource of the area.

There are various 'policy areas' set out within the plan. There is not a specific 'policy area' for the historic environment, instead it is referenced within a number of the other policy areas, for instance:

- Maintaining the special character of the area: 1.1 Ensure that the landscape, cultural and nature conservation resources of the Western Yar estuary are maintained in line with the requirements of relevant legislation.
- Physical processes 2.7 Any improvements to the level of coastal defences should take into consideration or, if possible, enhance the natural and historic conservation resources of the Western Yar as well as according with the Shoreline Management Plan, DEFRA guidance and the Habitats Directive.
- Data management and research: 10.1 Carry out an audit of the human uses, natural and historic resources of the Western Yar estuary which: Identifies gaps in understanding, Prioritises research and monitoring needs; Identifies costs; Results in an agreed timetable of work; Informs decision making and leads to improved management of the resources of the Western Yar estuary. 10.2 Establish a comprehensive data base of information on the flora, fauna, human uses and heritage of the Western Yar.

Hamble River Estuary Management Plan

Section C10 is 'Archaeology'. This includes a brief review of the historic environment of the river including mention of sites with statutory protection; this includes a protected wreck site which is situated in the river.

Heritage Issues identified are: 'Sites are threatened by disturbance, in particular from dredging, construction, bait digging, boat wash and direct visitor impact.

Heritage Aim: 'Help promote, protect and investigate the archaeological and historical heritage of the estuary'.

Policies related to this are:

- Policy 1 - Promote: To promote the rich archaeological heritage of the river.
 - Actions: a) To produce and display information on the archaeological heritage of the river and the importance of protecting wrecks.
 - b) To promote archaeological heritage in the Information and Interpretation strategy.
- Policy 2 – Protect: To support the protection of archaeological features and artefacts which are threatened by human intervention, unless they pose a hazard to navigation
 - Actions: a) To investigate and record any archaeological features or artefacts on the river.
 - b) To record any features removed because they are a threat to navigation.
- Policy 3 – Provide information: To support development policies on the river which protect the archaeological heritage of the river by providing information to planning authorities.
 - Action: a) Disseminate any information on archaeological features to district planning departments for inclusion in local development plans.

Harbours & Ports:

Langstone Harbour Management Plan 1997, revised 2009

The plan has a 'Landscape and Cultural Heritage Chapter'.

There is a very brief summary of key types of heritage features in and around the harbour.

Policies include: 10.9 Conservation and management of the landscape and cultural heritage of the Harbour is a key part of the overall goal.

The strategy should recognise that the landscape of the Harbour and its surroundings is of a strategic significance and that:

- features of historic and archaeological interest, especially those of national importance in and around the Harbour should be identified, recorded, conserved where possible and (if appropriate) incorporated into interpretation programmes;
- implications for archaeology of any proposals to disturb land and sediment within and around the Harbour should be investigated before work commences.

No revisions were made to the cultural heritage policies in the 2009 review.

Portsmouth Harbour Plan Review (2000)

http://www.portsmouth.gov.uk/media/Harbour_Plan_Review_2000_Part1.pdf

Policy 24

The settings of historic buildings and structures of importance to the Harbour's character will be safeguarded from development or activities which would jeopardize that character and hence reduce the value of the structures themselves. Settings include the open water of the Harbour, open space, and existing buildings nearby.

Policy 25

The archaeological potential of the Harbour should be fully considered when further activities within the Harbour are proposed. Management of the archaeological resource should be in accordance with published advice from English Heritage and past advice from the Royal Commission on the Historical Monuments of England.

The authorities bordering Portsmouth Harbour will:

- ◆ encourage appropriate survey and investigation of the archaeological resource and the maintenance of the Sites and Monuments Record (SMR), while protecting those resources deemed to be of regional or national significance;
- ◆ promote the public appreciation of Portsmouth Harbour's archaeological resource;
- ◆ adopt the objectives of the JNAPC Code of Practice for Seabed Developers to raise awareness of the potential for maritime heritage and the requirements for archaeological investigations within environmental assessments.

The QHM will consult the appropriate local authority Archaeologist prior to capital dredging programmes within the Harbour.

Chichester Harbour AONB, 2009

Document includes a review of the main historic environment features of the Harbour.

Policies:

- HE1 - To seek to ensure that the historic and archaeological significance of the AONB both on land and below the water is identified, recorded and where possible protected and sustained.
- HE2 - To develop effective partnerships and a sound knowledge base for the management of the historic and archaeological aspects of the AONB.
- HE3 - To raise public awareness of the historic environment and cultural value of the AONB and to realise its full potential as a learning resource and economic asset to the local community.

There are 9 Actions in support of the policies:

- Use the Chichester Harbour AONB Planning Guidelines to help protect and conserve the AONB's historic environment through the planning process.
- Promote the historical, archaeological and cultural value of the AONB and disseminate the results of archaeological research to a wide audience through a variety of methods and media.
- Carry out a Historical Character Assessment of Chichester Harbour AONB to link in with the West Sussex Historic Phase One Landscape Assessment to identify and record the historic landscape character of the AONB.
- Maintain the Chichester Harbour Archaeological Partnership to advise the management of the AONB heritage resource.
- Provide advice to landowners on funding opportunities for the future protection and appropriate management of historic, archaeological and cultural features.
- Using the results of the Archaeological Framework, prioritise and commission research both within and around the AONB, to guide the management of the historic environment.
- Encourage and support communities to seek funding to develop local heritage projects and initiatives.
- Continue to support ongoing field work programmes in partnership with local archaeological volunteers (Field Walking; Condition Assessment)
- Maintain and provide access to the relevant Historic Environment Records, which are maintained and developed in line with best practice and government guidance.

Southampton Port – ABP

Southampton is one of 22 ports operated by ABP. Many of these ports share policies and there is a specific website for environmental considerations (http://environment.abports.co.uk/env_estate.htm).

There is a Sustainable Development Policy available from the website. This is mostly related to monitoring of risks, use of resources and lines of responsibility. The Policy does not include cultural heritage specifically, but does include higher level policy such as:

- 3.1 To manage and, where possible, reduce the environmental risk of our operations
- 3.3 To ensure all new developments and business growth prospects have regard for the environment and look for opportunities of environmental improvement.

Coastal & Shoreline Plans:

New Forest District Coastal Management Plan 1997, revised 2003

Has a 'History and Archaeology' section. Has a brief review of the most prominent sites such as the castles and tide mill. Mentions maritime sites off the coast, including wrecks drowned settlements. Reviews the importance of heritage and issues related to it.

Policies include:

- B4i Encourage the conservation and protection of historic and archaeological sites and buildings on the District's coastline, and encourage protection of sites offshore.
- B4ii Take into account the presence of archaeological sites in the design and implementation of coastal defences, and will seek to avoid damage to them.
- B4iii Encourage further research into the archaeology of the coast on and offshore.
- B4iv Encourage projects to exploit the educational potential of historic and archaeological sites and buildings where this does not conflict with other objectives.

Further information on specific historic environment features is included within the 'Proposals' section which looks at smaller geographical areas. These concentrate on sites with statutory designations, but do include other sites.

Shoreline Management Plans

The Solent area was initially covered by three SMPs – West Solent, East Solent and Isle of Wight. During the process of reviewing and revising these plans the 'North Solent SMP' has been developed. The Theme Review within the SMP includes consideration of 'Historic Environment'; this recognises the known and potential archaeological resource and the desirability of protecting these remains. The document outlines the various heritage protection frameworks and provides a summary of the key sites and features of stretches of the coastline. This background evidence was collected to help assess the various impacts of coastal policy on the historic environment.

9.6.2 Selection of UK Port, Harbour & Estuary Management Documents

This table provides a brief summary of the documents consulted during the project and contents in relation to cultural heritage.

Date	Title/ Summary
2008	Hayle Estuary Management Plan, Cornwall Summary: 'Historic Environment' included in list of 'Considerations'. Guiding principle for heritage: "Ensure, as far as is possible and consistent with other Guiding Principles in this Plan, the protection and enhancement of the historic environment of the estuary and its immediate hinterland, whether statutorily protected or not." (pg 27). Includes specific objectives for heritage.
2008	Dart Harbour and Navigation Authority, Strategic Business Plan 2008 – 2010.

	<p>Summary: Section on ‘Environment’ mentions - 5.1. To develop policies in full recognition that the river, its wildlife and its environment is of outstanding beauty and environmental value and has a cultural history that must be nurtured. Only specific action is to ‘work with environmental partners’.</p>
2002 & 2009	<p>Avon Estuary Management Plan 2002, Avon Estuary Forum, Summary: Has a chapter on ‘The Historic Environment’. Key heritage objective is: ‘To identify, protect and actively conserve those archaeological and historical features that help to form the special qualities of the Avon estuary’. There are 2 pages of background text on historic resource, planning and regulatory framework, also highlight particular heritage issues. Four action points for heritage with detailed implementation points. This is one of the most comprehensive plans dealing with heritage. All estuaries in the South Devon AONB have received similar treatment. Avon Estuary Management Plan 2009 Summary: this document is part of a review cycle and assesses the previous objectives and actions outlined within the 2002 plan.</p>
2008	<p>Waveney District Council, 2008, Southwold Harbour and Walberswick Quay Conservation Area Management Plan. Summary: Document produced after issues raised in a Conservation Area appraisal. Based mostly on terrestrial built environment. Highlights that where Conservation Areas extend to Harbour Boundaries there can be more awareness of heritage issues.</p>
2010	<p>Portland Port Group: Formal Environmental Management Program Summary: This document sets out the process which will culminate in having an Environmental Management system in place by 2012. Planning includes undertaking a ‘Review and Characterisation of Environmental baseline’, this should include historic environment.</p>
Undated	<p>Environmental Code of Practice: for the ports of Falmouth, Truro and Penryn Summary: this is a summary document concerned with natural environment and waste disposal. It mentions an ‘Environmental Management Plan’ but internet searching failed to locate a copy of this.</p>
2003 & 2005	<p>Aberdeen Harbour Board, 2003 Environmental Policy Statement – this short document states a commitment to ‘improving and protecting environmental matters’. 2005 ‘Our Environment’ – document mentions that Aberdeen Harbour is Britain’s ‘oldest business’ having operated over 7 centuries, but there is no mention of cultural heritage. It is concerned with waste, spills and natural environment.</p>
2003	<p>Erme Estuary Management Plan Summary: Similar in style and format to the Avon example. Good emphasis on maritime heritage including submerged prehistoric landscapes and two protected wreck sites nearby. Has specific ‘Actions’ and ‘Implementation’ for cultural heritage. In particular action 2 ‘All developments on archaeological sites to contain appropriate conditions’, this should be positive for archives which would be deposited after investigations.</p>
2003	<p>Fowey Estuary Management Plan Summary: ‘Historic assets’ has its own section which is relatively high on the considerations within the EMP. Guiding principle for heritage: “To ensure the protection, promotion and understanding of the historic and cultural resource of the Fowey Estuary and to promote careful evaluation of any proposals for development that may affect them”. (pg 25) Document references 2000 publication following historic audit of estuary. Briefly mentions the various protection measures, available interpretation and management</p>

	of historic assets.
2009	Ilfacombe Strategic Development Plan Summary: Purpose of document is to develop harbour boards vision into a strategy. Development being promoted due to offshore renewables projects and other commercial opportunities (eg cruise ships). One of the core principles is to 'Maintain the Harbour Environment' however, more detailed texts does not include the historic environment or cultural heritage (despite wanting to attract more tourists).
2009	Dover Harbour Board Environmental Policy Summary: this is related to carbon use, waste, reducing water consumption etc, nothing related to the historic environment. Further internet research demonstrates the commercial focus of this larger port.
2010	Felixstow Environmental report Summary: This report is focused on waste and carbon with some biodiversity. It mentions an Environmental Policy but search on port website failed to find the policy.
	ABP Ports ABP operate 22 ports which share a range of policies. There is a specific website for environmental considerations (http://environment.abports.co.uk/env_estate.htm). Sustainable Development Policy is available from the website. This is mostly related to monitoring of risks, use of resources and lines of responsibility. Plan does not include cultural heritage specifically, but does include higher level policy such as: 3.1 To manage and, where possible, reduce the environmental risk of our operations 3.3 To ensure all new developments and business growth prospects have regard for the environment and look for opportunities of environmental improvement
2008	Management Plan for the Harbour of Rye Summary: Strategic objective 3 is 'Environmental Stewardship', but doesn't mention cultural heritage in any of the various actions related to this. Objective 4 is 'Community and User Engagement' this mentions the need for historical interpretation in relation to community engagement. Objective 5 'Local prosperity' has an action to support a heritage/ education centre.
2005	Salcombe & Kingsbridge Estuary Environmental Management Plan Summary: in the same style as the Avon and other Devon example. Historic Environment Aim: 'To identify, protect and actively conserve those archaeological and historical features that help to form the special qualities of the Salcombe-Kingsbridge estuary'. Good historical background including mention of protected wreck sites. There are a range of actions in relation to the historic environment.
2007	Yealm Estuary Management Plan 2007 – 2012 Summary: The management actions are organised into 11 themes, but none of these specifically includes heritage. There is mention of heritage under 'Planning and Development Control' which aims 'To ensure the character and quality of the estuary and its designations for nature conservation, natural beauty and heritage are not compromised by inappropriate development. To encourage the adoption and implementation of best practice design for development affecting the estuary" The actions in support of this policy indicate council involvement, but do not reference English Heritage as being involved.
2006	Humber Management Scheme 2006 Summary: Section 5 of this document is titled 'Human activities in and around the Humber Estuary', however, this section clearly relates to modern human activity

	<p>rather than any past (historic) human activity. The appendix to this report for 'Science and education' mentions archaeological survey as a human activity that takes place in the area – but nothing about the actual historic environment. Humber estuary management scheme has produced a set of codes of conduct, this 26 page document does not mention heritage at all.</p>
2010	<p>Belfast Harbour Health, Safety and Environment Policy Statement Summary: A high level policy statement which outlines approaches to the three main areas in the title.</p>