

AAF



Project Sponsors:



ENGLISH HERITAGE



Society of Museum Archaeologists

Securing a Future for Maritime Archaeological Archives

Element Three: Analysing Present and Assessing Future Archive Creation



October
2009

Contents

I. ACKNOWLEDGEMENTS	2
II. LIST OF FIGURES.....	3
1. EXECUTIVE SUMMARY	4
2. PROJECT BACKGROUND	5
3. SURVEY AND METHODOLOGY	6
4. ARCHIVE CHARACTERISATION BY SECTOR.....	8
4.1 ARCHAEOLOGICAL CONTRACTORS	8
4.2 RESEARCH AND SOCIETIES SECTOR.....	10
4.3 DESIGNATED WRECK SITE LICENSEES AND ARCHAEOLOGICAL ADVISORS.....	12
4.4 INDIVIDUAL DIVERS AND COLLECTORS	14
4.5 RESPONSES FROM PUBLIC ARCHIVES AND PRIVATE MUSEUMS AND EXHIBITIONS SECTORS	15
4.6 COMBINED SUMMARY RESULTS	16
5. CURATORIAL, REGULATORY AND INDUSTRY FRAMEWORK AND FUTURE ARCHIVE DEMAND	19
5.1 ARCHAEOLOGICAL CURATORS.....	19
5.2 REGULATORS, CONSENT ISSUING BODIES AND SEABED OWNERS.....	22
5.3 MARINE INDUSTRY SECTORS	25
6. ANALYSING CAPACITY AND RELATED ISSUES.....	32
6.1 CAPACITY FOR CURRENT ARCHIVES.....	32
6.2 CAPACITY FOR FUTURE ARCHIVES	37
6.3 FACTORS INFLUENCING ARCHIVE DEPOSITION	38
7. SECTOR RESPONSE TO POTENTIAL SOLUTIONS TO ARCHIVE SITUATION.....	39
8. CONCLUSIONS.....	40
9. BIBLIOGRAPHY.....	41
10. APPENDICES – ELEMENT THREE RESPONSES.....	42
10.1 ARCHAEOLOGICAL CURATORS	42
10.2 REGULATORS AND CONSENT ISSUING BODIES	44
10.3 MARINE INDUSTRY SECTORS.....	45
10.4 SEABED OWNERS.....	47

i. Acknowledgements

This is a collaborative project being undertaken in support of the aims of the Archaeological Archives Forum (AAF) which has formally adopted the issue of maritime archives as part of its new forward plan. The membership of the Archaeological Archives Forum is supportive of this initiative, which is reflected in project funding provided by English Heritage (EH), Historic Scotland (HS), Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), the Society of Museum Archaeologists (SMA) and the Archaeology Data Service (ADS). Significant contributions of time in-kind were provided by Jesse Ransley and Julie Satchell in the formulation and development of the project.

This report is the third of three to be delivered as part of the ‘Securing a Future for Maritime Archaeological Archives’ Project. Element One report *Mapping Maritime Collection Areas*, and Element Two *Review of Maritime Archaeological Archives and Access* can be viewed at:

<http://www.hwtma.org.uk/archaeological-projects/research/maritime-archaeological-archives/project-reports-and-downloads/>

Project financial management is being undertaken by the Institute for Archaeologists (IfA), with project work being delivered by the Hampshire & Wight Trust for Maritime Archaeology (HWTMA). This project is being managed for the IfA by Kenneth Aitchison, work is being coordinated and delivered by the HWTMA. The project steering group includes: Kathy Perrin (EH/ AAF), Ian Oxley (EH Maritime), Philip Robertson (Historic Scotland), Lesley Ferguson (RCAHMS), Catherine Hardman (ADS) and Philip Wise (SMA/ AAF).

This report has been written by Julie Satchell with contributions from Jesse Ransley. The gathering of Element Two survey responses and data input was undertaken by Victoria Millership.

The HWTMA would like to thank all those individuals and organisations who have spent time responding to questions and queries in relation to archives and related creation and management issues.

Cover image acknowledgements:

Main background image: Diver working on the *Invincible* Protected Wreck Site (Invincible Project)

Inset images:

Work on the archive of the Warship *Hazardous* (Hampshire & Wight Trust for Maritime Archaeology)

Extract from the *Invincible* archive database (HWTMA/ Invincible Project)

Selection of artefacts from the *Stirling Castle* held by Thanet Archaeological Trust (HWTMA)

ii. List of Figures

Figure one: Aggregate dredge areas around the UK coast (Copyright Crown Estate:
http://www.thecrownestate.co.uk/dredge_areas_statistics)

Figure two: Locations of Offshore Wind Farm Zones (both Copyright Crown Estate)

Figure three: Location of UK Major Ports Group members
(<http://www.ukmajorports.org.uk/locations.asp>)

Figure four: Distribution of offshore oil and gas fields
(<http://www.ukooa.co.uk/education/leaflets/sheet003.cfm>)

Figure five: Distribution and density of archive holders which took part in the survey

Figure six: Distribution and density of reports from the Receiver of Wreck Amnesty

Figure seven: Distribution of museums and archives which do and do not currently collect maritime archives

1. Executive Summary

This report *Analysing Present and Assessing Future Archive Creation* presents the results of Element Three of the Securing a Future for Maritime Archaeological Archives project. The aim of this element of the project was to analyse the composition, size and rate of the maritime archaeological archives currently produced and to thereby characterise likely future archive creation, in order to gauge curation needs.

Data gathered for Elements One and Two of the survey were drawn on for this phase. This information was enhanced, where necessary with further questions for individuals and organisations. In particular further survey of curatorial, regulatory and industry sectors was undertaken to assess the current framework within which maritime archives are being created and the potential effects of this on volume and composition of archive.

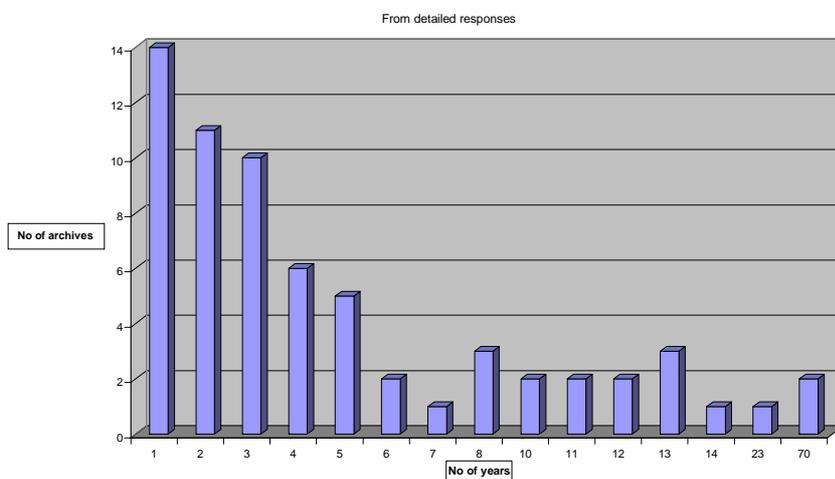
The characterisation of archive creating sectors revealed the following statistics related to current and future archive creation:

Nature, components and scale of archive: this data was included within the Element Two report and revealed that undeposited archive consisted of objects (9%), paper (30%), photographs (27%), video (less than 1%), sample (1%) and digital (33%).

Types of projects generating archive: recovery (3%) although this does not include material reported through the Receiver of Wreck, survey (55%), evaluation (11%) and excavation (31%).

Archive status: 33% of archives represented in the survey were active and accumulating further material, meaning that 67% are closed but have not been deposited in a public repository.

Period over which archives have been produced:



Potential levels of future archive accumulation – archiving creating sectors: 75% expect an increase, 25% to stay the same and 0% to decrease.

The examination of the curatorial, regulatory and industry framework within which archives are currently being created revealed further data on the nature of the archives being produced and the types of projects generating them. Questions relating to archaeological conditions within development consents and licences served to highlight the current inconsistency in approach and the confusion over specific roles and responsibilities of curators, contractors and clients.

A review of capacity for current archives was attempted through the comparison of known archive concentrations with the results from Element One of the project that examined which museums were collecting maritime archives. Due to the low levels of English museums collecting the net result is a lack of capacity to cope with current archives. In Scotland this situation is not so pronounced as the RCAHMS and National Museums of Scotland do collect maritime archives.

Looking to the future, all sectors – archive creators, curators, regulators, seabed owners and marine industry – expected levels of archives to increase. In light of the lack of capacity for current archives, this raises questions over how these increases can be coped with. There is a clear need for the urgent development of strategies to deal with this situation.

Short to medium term – interim measures are required to ensure archive being created can be deposited. Clarification of roles and responsibilities needs to be addressed to allow a framework for marine archives to be established and articulated through guidance and best practice to all those involved – creators, curators, clients/funders, museums and repositories.

Long term – there are clearly many issues to be tackled over the longer term. These include providing capacity on a regional or national basis for maritime archives to be collected and curated to ensure their access and security for current and future generations. Capacity must take account of the back log of archives in addition to those being produced now and through future projects.

Other factors influencing the creation and deposition of archives have been articulated within the previous two project reports, a summary was provided again in this report (Section 6.3) to help ensure that the formulation of responses to archive capacity recognise these issues.

This project has provided the baseline data on the type and size of maritime archives and their current access and security, it has also examined current museum collection policy and capacity and reviewed future levels of archive creation. During the interviews undertaken for this project participants have been asked their view on potential solutions. There is a general consensus that a national or regional maritime archaeological archive resource centre(s) could be a solution to this.

This project has articulated the present situation related to maritime archaeological archives. It is now important that these issues are reviewed and solutions formulated that will ensure more of our maritime archaeological heritage is not lost to the research community, schools, community groups, and the public as a whole.

2. Project Background

The Securing a Future for Maritime Archaeological Archives Project was formulated in response to work by the IfA Maritime Affairs Group (MAG) which highlighted the dire situation facing maritime archaeological archives. At present there are a lack of museums and archive repositories willing or able to take collections from the marine environment. Thus our 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, of schools, of community groups, and of the public as a whole.

The maritime heritage community is in agreement that there is an urgent need to develop approaches to maritime archaeological archives at all levels from strategic policy to local or regional repositories. Without the development of best practice and the capacity to accession

maritime archaeological material, collections are likely to remain in their current precarious situation, considered neither by archaeological archive organisations nor by maritime museums.

In order to address this situation there was a need to have a firm knowledge base on which to base future initiatives. *Securing a Future for Maritime Archaeological Archives* addressed this through:

- Understanding how museum and archive repository collection areas and collection policies consider the marine zone;
- Reviewing where maritime archaeological archives are currently held and assessing their public accessibility; and
- Analysing present maritime archive creation and assessing the scale and nature of future maritime archives.

This report presents the results of Element Three of this project – *Analysing Present and Assessing Future Archive Creation*. The aim of this element of the project was to analyse the composition, size and rate of the maritime archaeological archives currently produced and to thereby characterise likely future archive creation, in order to gauge curation needs. The objectives were:

1. To appraise the various types of archives generated by the sectors involved in maritime archaeology, such as contractors, universities and research organisations, archaeologists and volunteer groups working on Designated Wreck Sites (Licensee groups), independent amateur societies, and amateur salvage divers (reporting finds to the Receiver of Wreck);
2. To analyse the amount and rate of creation of archive, in order to begin to gauge future archive creation;
3. To identify any future ‘spikes’ or predictable rises in archive creation, such as large-scale marine development projects; and
4. To produce an assessment of future archive creation and curation needs.

During the project it became clear that it was logical to include the analysis of archive type by sector (point one) within the Element Two report which presented all the archive assessment results. The results of the analysis (bullet points 2 – 4), which concentrated on the speed at which archives were created and future levels of this, are included within this report.

3. Survey and Methodology

This Element of the project has drawn heavily on the results of the previous two reports in addition to further desk-based research and meetings with a wide range of archive creators, curators and marine industry sector representatives.

Meetings and interviews

Research meetings and interviews, via email and phone targeted representatives from each of the key archive creating sectors – contractors, research organisations and institutions, Designated Wreck Site licencees and advisors and individual divers. These meetings and interviews were often combined with those for Element Two, to maximise data gathering. Questions related to Element Three of the project concentrated on the types of projects being undertaken, the nature of the archives being created, any changes in the type of archives, the length of time over which they were being produced and expected future archive creation.

In order to gain a more complete picture of potential future archive creation an email was sent to all those who had responded to the survey to ask whether they expected their maritime archive

levels to increase, stay the same or decrease. The responses were included within the main project database.

Survey related to the curatorial, regulatory and industry framework within which archives are being produced was based on a combination of survey questions by email and follow up queries and phone calls. The following questions were circulated:

Q1: What are the main types of project being undertaken below the low water mark that involve archaeological input and assessment?

Q2: What types of archives are being created by these projects (eg paper, photographic, digital (including geophysical survey), object, samples)?

Q3: Are the archives from marine archaeological investigations being deposited in a museum or repository for their long-term care, curation and public access?

Q4: Is the specific requirement for the deposition of marine archaeological archives regularly included as a condition of consent, licence or lease?

Q5: Have you noticed whether there has been a change in the number and types of archaeological archives produced over the past 5 to 10 years?

Q6: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created and hence requiring capacity for deposition and curation?

These questions were tailored for particular sectors, organisations or seabed owners. The aim of this Element of the survey was to establish current levels of archive creation, factors that may be affecting the deposition of archive in public repositories and predictions for future levels of work which may indicate increased archive creation.

Data Analysis

Data assessment and analysis drew on the responses from all three project Elements. Some ordering of the responses from the main survey were required. For instance where there had been a text based answer to the period over which an archive had been created this was given a number which was included within brackets to show it had been added to the original response.

A new field in the database for the type of project represented by the archive was added. The information for this field had often been provided in text based responses, but for the purposes of Element Three was summarised into categories:

- *Recovery* – most frequently used for single items, these often have little associated archive;
- *Survey* – was taken to include work on site or desk based survey;
- *Evaluation* - sites where survey and sampling has taken place, but there only be a limited object archive; and
- *Excavation* – where there has been intrusive excavation of sites.

The project database and responses from interviews were then brought together to analyse aspects of archive creation and expected future creation.

4. Archive characterisation by sector

Data analysis to review the number, type, composition, distribution and speed at which archives are being created has drawn on the results presented in the Element Two report. In particular data on the type of archive and distribution can be found in the preceding report. This report concentrates on data which provides information on undeposited archive, and hence can inform on the current back log, for which long-term archive capacity is required. Where data mentioned has been presented in the Element Two report the page number has been included for ease of reference.

This section provides a detailed characterisation of the archive creating sectors; those who are generating new archive. It also includes relevant data from public museums and archives and from private museums and exhibitions relevant to the Element Three analysis.

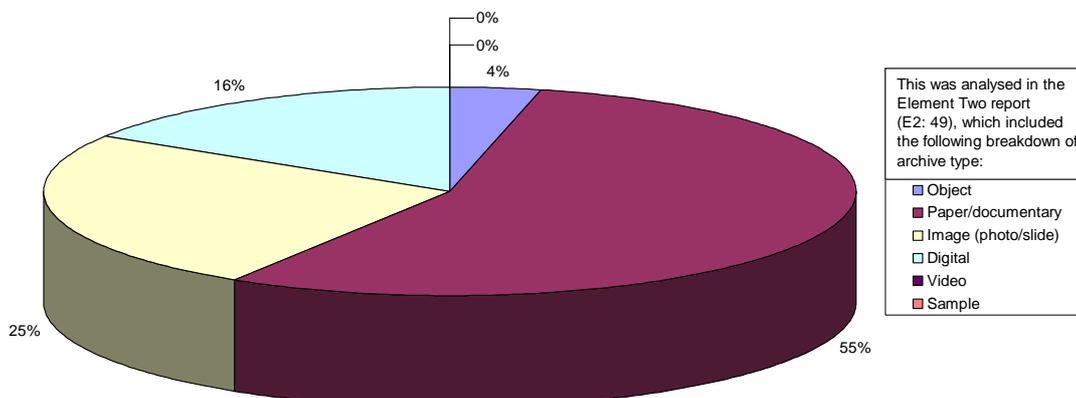
4.1 Archaeological contractors

While archaeological contractors did not represent a high percentage of the survey responses, those that did respond provided detailed information on their archives. Further information was added to this dataset through interview responses.

4.1.1 Sector Statistics

Distribution of archive holders/creators: There was a relatively low response from archaeological contractors with 11 different contractors represented and further data from Wessex Archaeology being added based on interview responses. The distribution of contractors is shown in the Element Two report (page 92), interestingly they are distributed relatively evenly around the country, however, when assessing the numbers of archives held there are is a concentration in the south of England.

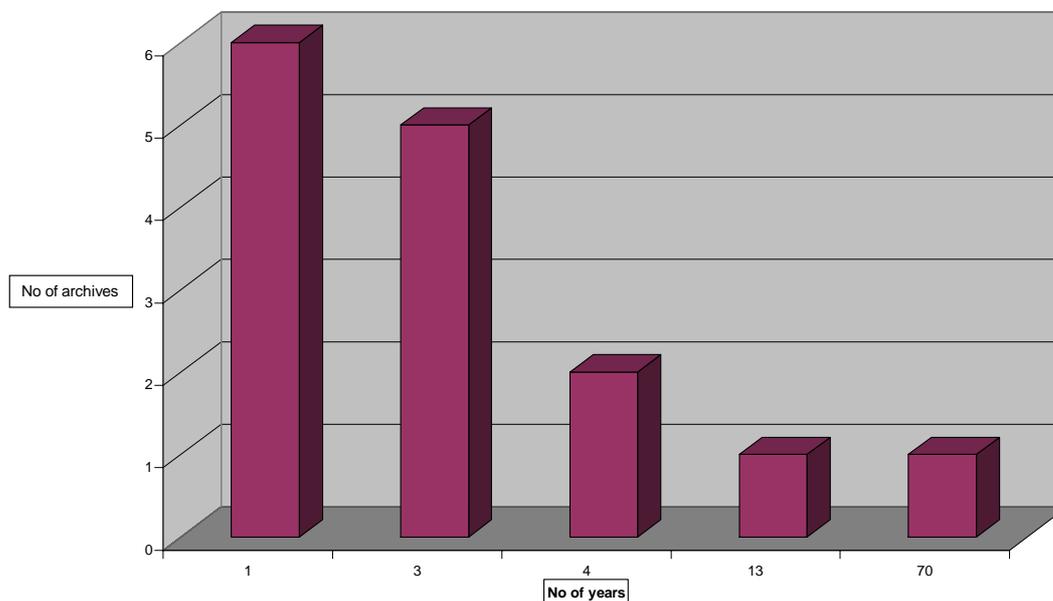
Nature, components and scale of archives: This was analysed in the Element Two report (E2: 49), which included the following breakdown of archive type:



Type of projects represented: Recovery – 1; Survey – 10; Evaluation – 1; Excavation – 5

Archive status: Of 17 archives represented in the survey only 3 are still active, with the remainder being closed but not deposited.

Archive accumulation



Potential levels of future archive creation : Increase: 2, Stay the same: 1

4.1.2 Sector Characterisation

The survey has demonstrated the following characteristics related to archives produced by archaeological contractors:

- Contractor distribution is relatively even, although numbers of archives held demonstrate concentrations
- Low levels of object holdings
- Large digital datasets
- Small numbers of video and samples
- High numbers of survey archives and relatively high numbers of excavation archives
- High number of ‘closed’ archives awaiting deposition
- Many archives are generated over relatively short (1 – 3 year) periods
- Future archive creation from this sector will increase

Further data gathering from interviews revealed the following information related to present and future archive creation:

- Environmental Impact Assessment (EIA) and development-led projects make up the majority of archives within this sector
- The length of time that marine EIA related projects take means archives can remain open for many years until the completion of the development
- There has been a big expansion in geophysical survey and geotechnical data and the size of files related to these
- Levels of work are increasing with renewables, ports and aggregates expanding
- Determining scale of current and future archive deposition requirements for this sector is difficult due to the lack of established framework and best practice for deposition

In summary, there is already a significant backlog of archives from development control work residing with contractors. Arrangements for their deposition were not included within project briefs, and this, coupled with the lack of established responsibility for archiving of marine projects, mean they currently have an uncertain future. The physical size of many of these archives is not large with many being composed of paper/documentary, image and digital components. Hence, addressing this backlog is unlikely to require significant funds. Finding a long-term home for digital components may be more costly, but this depends on the outcome of a range of initiatives, including proposals for establishing Digital Archive Centres (DACs). With contractors expecting their archives to increase in the future this is a situation which requires urgent attention.

4.2 Research and societies sector

Information provided by the research sector demonstrated current archive holdings by type and quantity, again this was supplemented by interview responses. The number of responses and high levels of detail have provided a fair representation of this sector. However, a number of Universities which have a long history of maritime archaeological research did not take part in the survey.

4.2.1 Sector Statistics

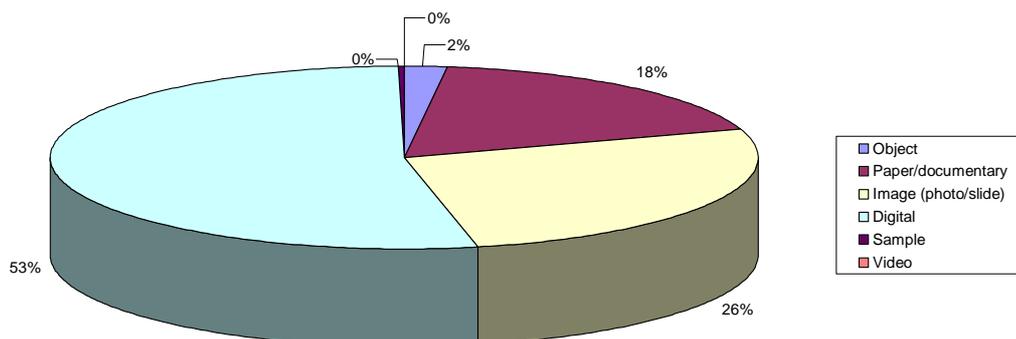
Distribution of archive holders/ creators

There were 24 different organisations, institutions and societies represented within the survey responses, providing details of over 70 archives. The distribution of respondents is shown in the Element Two report (E2.p 95). This shows there are some concentrations of research organisations and institutions in the following locations:

- West coast of Scotland
- South and South West coast of England
- North East coast of England
- A number of organisations and institutions are based in land-locked counties

Nature, components and scale of archives

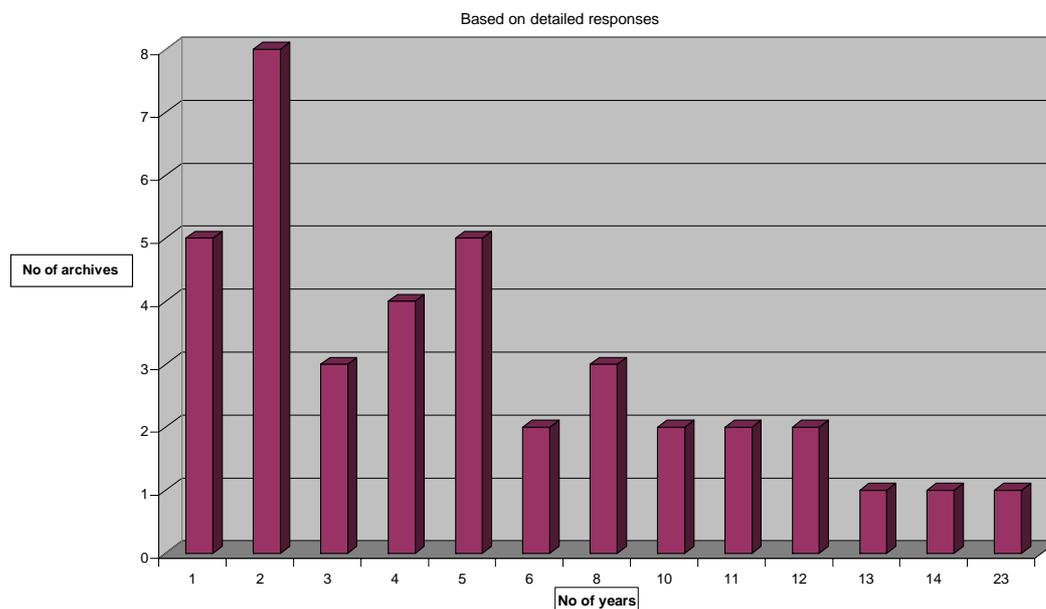
Breakdown of archive type includes material from 70 different sites or projects:



Type of projects represented: (Based on detailed responses) Recovery – 1 (1%), Survey – 41 (59%), Evaluation – 10 (15%), and Excavation – 17 (25%).

Archive status: 25 of the 70 archives included within the detailed response table are believed to be currently active and hence open to more material in the future. This leaves 45 archives that are closed but not deposited in a public museum or archive.

Archive accumulation



Potential levels of future archive creation: Increase: 5 , Stay the same: 1.

It is encouraging that the majority of research organisations and societies expect to continue projects and research that will help further understanding of the marine historic environment, however, this also means there will be further demands for archive capacity.

4.2.2 Sector Characterisation

The survey has demonstrated the following characteristics related to archives produced by research organisations and institutions:

- Distribution of research organisations and institutions shows some geographic concentrations, although it is recognised that a number of universities known to be undertaking research did not respond to the survey;
- There are high numbers of digital archives being created, although as the Archaeology Data Service are included within this sector it means the percentage of this material appears high;
- The numbers of objects represented are relatively small, with even fewer videos and samples;
- Paper/documentary and images represent substantial percentages of archive type held;
- There are high numbers of survey archives, but also significant excavation and evaluation;
- Just over a third of archives in this sector are ‘open’ and still being added to;
- There is a large variety of time periods over which archives in this sector are generated – between 1 and 23 years; and
- The majority of archive creators in this sector expect to increase their holdings.

The research and societies sector hold a range of archives related to different site types. Many of these are significant archives that have been generated over longer time periods. There is a clear need to address back log deposition issues for this sector and also to ensure there is adequate capacity for future creation.

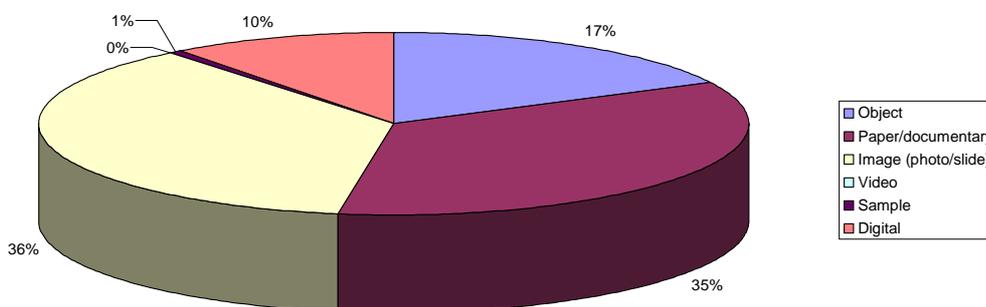
4.3 Designated Wreck Site licensees and archaeological advisors

This sector represents the archive of some of the most significant historic wreck sites. Past and present licensees and archaeological advisors were targeted with the survey.

4.3.1 Sector Statistics

Distribution of archive holders/creators: 19 licensees from England responded to the survey, unfortunately there were no replies from Scottish licensees. Some of these respondents provided information on more than one site and archive, in total 25 of the Designated Protected Wreck sites were represented. The distribution of respondents is shown in the Element Two report (E2.p 96), this demonstrates concentrations of archive holders in the South West of England, South of England and North East of England.

Nature, components and scale of archives: The breakdown of detailed responses included

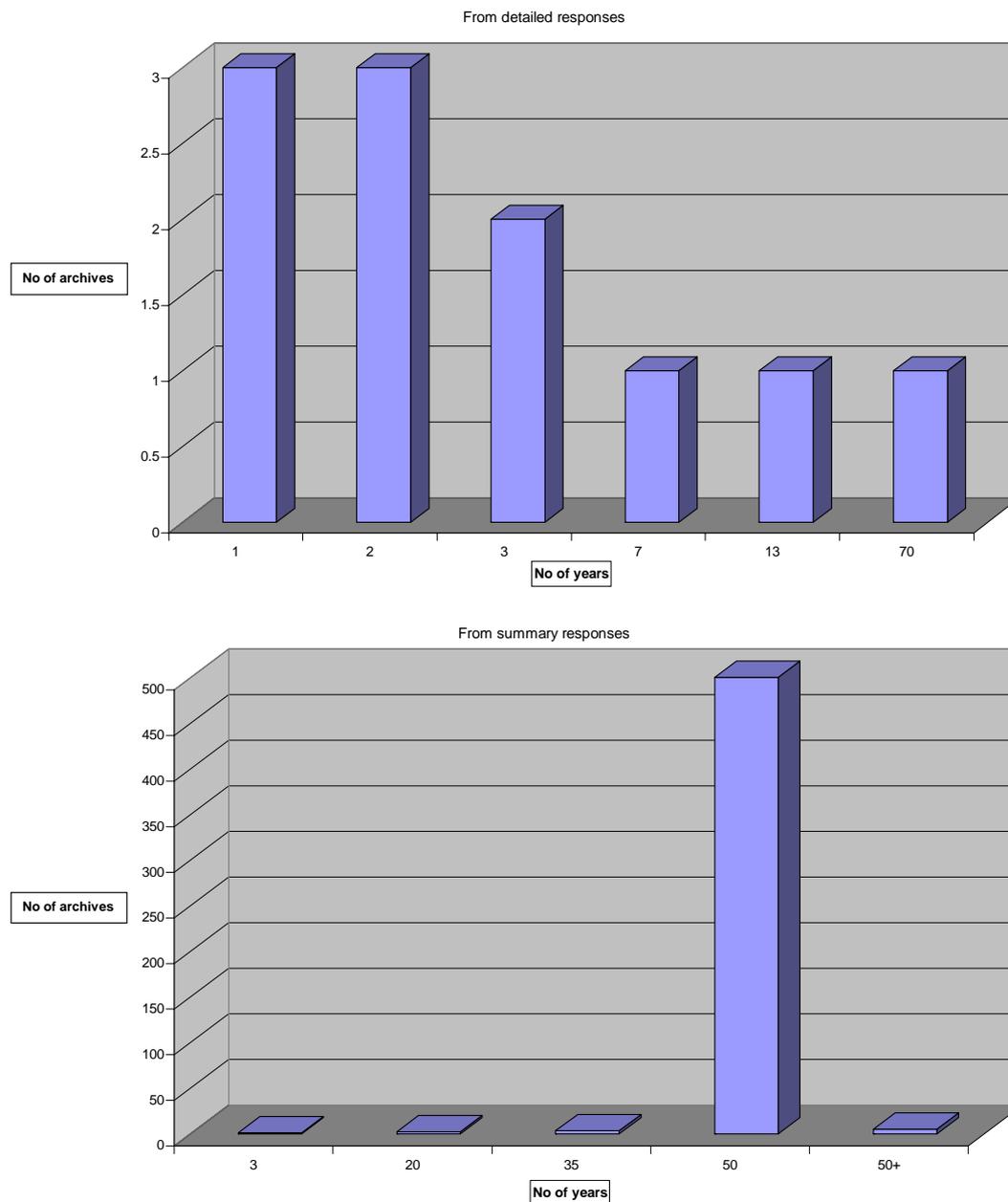


As outlined in the Element Two report there were a number of other summary responses which provided data on a further 707 other sites. These are not necessarily from Designated Wreck Sites, but they show how active this sector of archive creators is.

Type of projects represented: Recovery – 1, Survey – 6, Excavation – 7.

Archive status: 6 of the 14 archives for which detailed responses were provided are currently active.

Archive accumulation: As there were a mixture of detailed responses and summary responses from this sector the statistics have been broken down into two separate graphs.



As can be seen in the bar graph this sector includes archives and archive collections that have been generated over many years, some exceeding 50 years.

Potential levels of future archive creation

- Increase: 2
- Stay the same: 1

The response to this additional survey question from this sector has been poor. However, the survey results demonstrate that this is an active archive creating sector, this is not likely to change in the future.

4.3.2 Sector Characterisation

The survey has demonstrated the following characteristics related to archives produced by Designated Wreck Site licensees and archaeological advisors:

- Archives from this sector have the smallest percentage of digital material;
- The number of objects within archives is high compared to other sectors, only individual divers and collectors have a higher percentage;
- The balance of archive components reflects long term research investigations on sites and should be used as representative of excavation archives, although acknowledging that more recent work will have higher amounts of digital components;
- This sector has the highest proportion of excavations represented, although there are also significant numbers of site surveys;
- Around half of archives within this sector are currently active;
- Archives are accumulated over very long periods of time; and
- The amounts of archive generated by this sector is likely to increase.

There is a significant amount of undeposited archive represented within this sector, the urgency of addressing this issue is compounded by the importance of the sites under investigation which have been designated as being nationally important. This sector has high levels of involvement of avocational archaeologists. Issues such as the need for training and support to develop best practice in the creation and deposition of archives from this sector has already been highlighted within the Element Two report. Taking action in this area may improve future levels of deposition within public archives. With current projects there has often been a lack of direct contact between groups undertaking work and potential recipient museums, which has resulted in a backlog. Conditions of Designated Wreck Site licences are now stipulating deposition within publicly accessible archives, however, there is currently no clear framework for the un-designated historic wreck sites.

4.4 Individual divers and collectors

Data for this sector was largely derived from the Receiver of Wreck (RoW) report from the Amnesty held in 2000, although this was supplemented by more recent RoW reports and interview responses. The dataset for this sector differs from the others in that it is solely artefact based.

Distribution of archive holders/creators: The location of the reports received for the RoW Amnesty were used to create a distribution map for the Element Two report (E2.p 97). This demonstrated a spread of reports from coastal areas of England and Scotland, in particular there were high levels of reports from:

- South West, South and South East coasts of England
- North East of England
- North West coast of Scotland
- Orkney and Shetland

It is worth noting that only the North West coast of England did not receive any reports during the Amnesty, however, the distribution of the otherwise extensive numbers of reports reflect diving activity around the coast of the UK.

Nature, components and scale of archives and type of project represented: This sector is based entirely around object recoveries. While some of these may have small levels of documentation held by the owner, the majority do not and are single recoveries.

Archive status: It has not been possible to determine whether these archives are active or closed. Although it could be argued that as many of the items recovered are from well known dive sites and more material is recovered year after year that quite a number of these archives should be considered 'open'. One of the effects of the RoW system is that archive from a single site can be split between many hundreds of individuals.

Over what period have the archives been produced: Again it is difficult to answer this using the available data. Further inspection of the RoWs reports over the past 10 years might be able to provide some information on which sites recoveries are regularly being made from, however, it was outside of the scope of this project to undertake this.

Potential levels of future archive creation: Reports to the RoW post Amnesty indicate that the levels of material being recovered from 'historic' wrecks (which are defined as those over 100 years old) are relatively consistent at around 100 recoveries per year. However, it is recognised that many artefacts younger than 100 years have historical significance, but these are not included within these figures. In five years time when ships from the First World War pass the 100 years arbitrary deadline the numbers of 'historic' items recovered are likely to increase significantly as shown within the reporting statistics.

Sector Characterisation

The archive produced by individual divers and collectors demonstrates the following characteristics:

- Archive from sites all around the UK coast is being recovered by divers;
- This sector comprises almost entirely of objects; and
- Recoveries from sites continue at a relatively even pace, this is not expected to change in the future.

Additional information from interviews provided a more detailed look at a small number of individuals included within this sector. This gave more quantitative and qualitative data.

- Individual divers often hold archive related to a particular area and/or specific sites;
- Those with a particular interest can have extensive research archives about sites they have been investigating; and
- Some collections have been generated over long periods, often around 30 years, reflecting the more wide availability of SCUBA diving from the 1970s onwards.

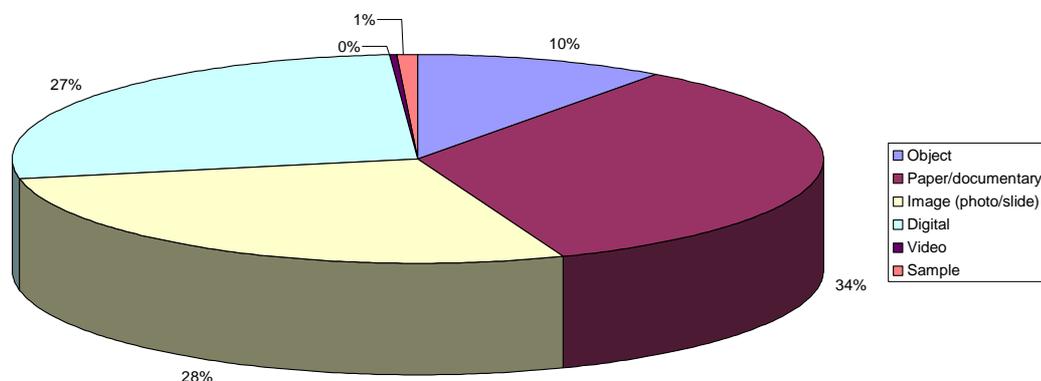
This sector holds the greatest collection of artefacts related to the maritime cultural heritage of the UK. As outlined in the Element Two report there is an urgent need to increase the collection of material reported through this system to prevent the on-going loss of the resource. The levels of recoveries can be expected to remain relatively constant, which provides a good indication for potential archive capacity required for the future.

4.5 Responses from public archives and private museums and exhibitions sectors

In addition to the archive 'creating' sectors, as detailed above, there were a number of elements of the survey related to the public and private museum sectors relevant to Element Three of the project. In particular it was important to include the information on archives currently held by the private museums and exhibitions as these have been included as 'undeposited' archive. The question relating to future levels of archive either increasing, staying the same or decreasing was also sent to these sectors. Responses received are important for gauging current and future archive capacity.

Nature, components and scale of archive held within private museums and exhibitions

Within the sector we find the following breakdown of archive type:



Potential levels of future archive accumulation – public museums and archives: It should be noted that as the question on future levels of archive accumulation was circulated after the survey had been closed there was not time to chase responses from those who did not respond. Hence the replies received are far less than the number of museums and exhibitions within the full survey.

- Increase: 6
- Stay the same: 6
- Decrease: 1

Although this is a small sample, on initial inspection it is relatively promising that half of public museums and archives who responded were expected to increase their maritime archive holdings. However, in terms of an assessment for England and Scotland it should be noted that 3 of the 6 planning to increase holdings were from Guernsey, the Isle of Man and Ulster Museum. The results of Element One of the survey demonstrated that only a small number of public museums were willing or able to increase their maritime archaeological holdings.

Potential levels of future archive accumulation – private museums and exhibitions

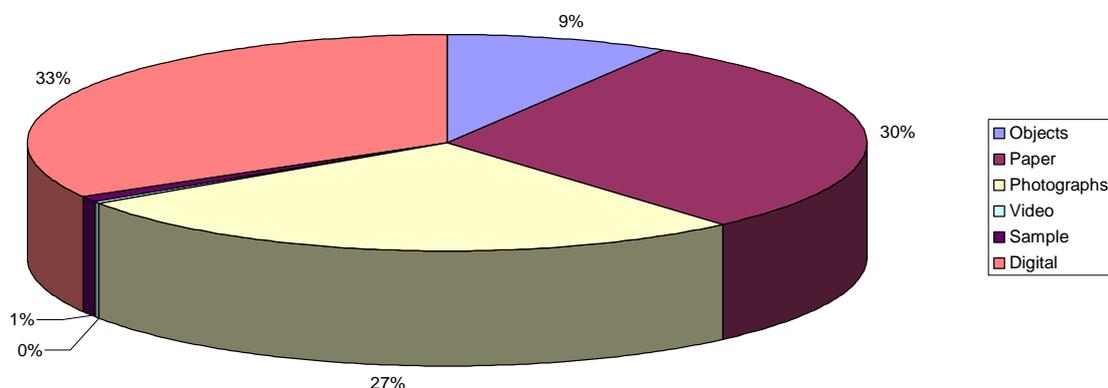
- Increase: 5
- Stay the same: 6
- Decrease: 1

These responses indicate that the collections held by private museums and exhibitions are likely to increase in the future. The intention to decrease a collection raises questions over how this material will be ‘disposed of’.

4.6 Combined summary results

The characterisation of maritime archaeological archive by sector has allowed a more detailed understanding of the issues related to present and future archive creation. This data is needed to be able to respond to current archiving needs and also to plan for future archive creation. This section reviews the results in combination to provide a comprehensive assessment across the sectors.

Nature, components and scale of archive: 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, and Digital – 191,145.



This provides the comprehensive statistics on undeposited archive held across the sectors that was represented within the survey, although it should be noted that the object recoveries from the RoW Amnesty data are not included within these statistics, they include over 30,000 objects.

Type of projects represented

- Recovery – 3 (3%) (not including the many recoveries through the RoW)
- Survey – 52 (55%)
- Evaluation – 10 (11%)
- Excavation – 29 (31%)

With ‘survey’ including desk based research as well as field survey this has increased the numbers within this category of project. Although it is often quoted that there is little or no maritime archaeological excavations on-going (NAS 2009), the archive statistics appear to show a good proportion of excavations having been undertaken, for which the archives are yet to be deposited. It should be noted that the figures for excavation include both underwater and some inter tidal projects.

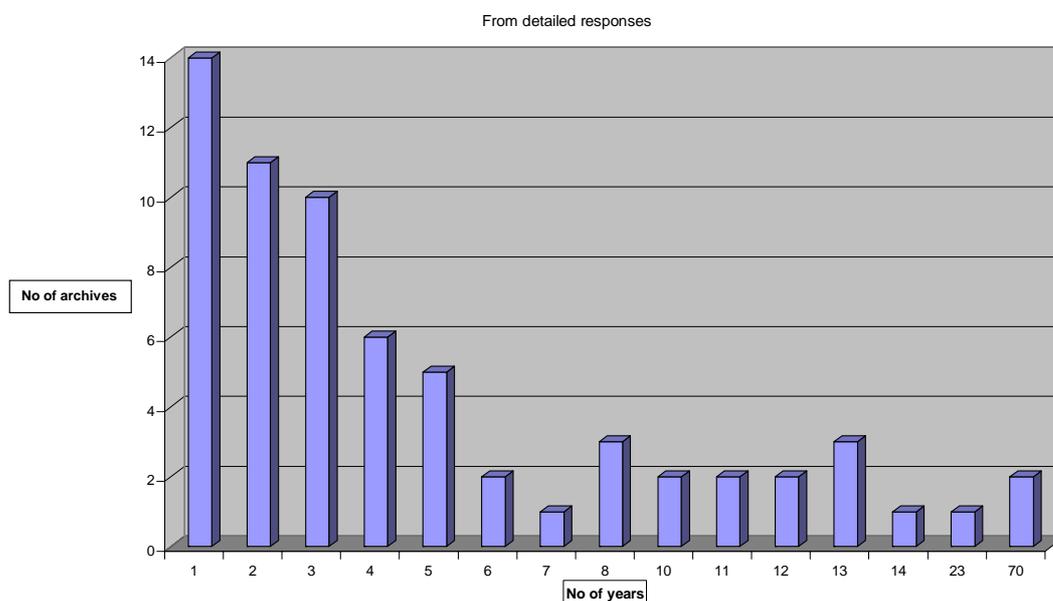
Archive status

Total archives = 101

Total active = 34

While it might be expected that some ‘open’ archives have not yet been deposited, the fact that over two thirds of archives represented are ‘closed’ but undeposited highlights the need for archiving capacity.

Period over which archives have been produced



There are clear differences between the archive sectors in terms of the time over which an archive has been accumulated. With all the statistics brought together into a single graph it is possible to see patterning with large numbers of archives being generated over 5 years or less and then a spread of time spans for those accumulated between 6 and 70 years.

Potential levels of future archive accumulation - Archive creating sectors

- Increase: 9 (75%)
- Stay the same: 3 (25%)
- Decrease: 0

Although the number of responses on which these statistics are based are relatively low, it does provide an indication of the future requirements for archiving with 75% of archive ‘creators’ expecting the number of archives to grow. As discussed in section 4.5 and in the Element One report the numbers of public museums that are willing or able to take maritime archaeological archive is low. This demonstrates the huge dearth of capacity for maritime archaeological archives.

5. Curatorial, Regulatory and Industry Framework and Future Archive Demand

In addition to gauging the current levels of archive held by and likely to be generated across the sectors the project has sought to review the curatorial, regulatory and industry frameworks within which archives are produced. This investigated future levels of development activity, and hence archive creation, and also the external influences that might be affecting archive deposition. This section has involved desk based review and interviews, copies of key responses have been included in the Appendix, Section 10.

It is beyond the scope of this project to review the full legislative background within which archives are currently generated. (There are a number of publications that detail aspects of legislation in relation to marine cultural heritage, such as English Heritage 2005; Historic Scotland 2008 & 2009; DCMS 2007 & 2008). The Element Two report recognised the effect that the current legislative framework has had on archives. However, this Element of the project focuses on present and future archive creation, implications for capacity and addressing this issue.

5.1 Archaeological curators

Questions posed to marine curators within English Heritage (EH) and Historic Scotland (HS) followed those outlined in Section 3, they sought to understand current archive creation, conditions related to deposition and levels of past and future archive levels. As statutory consultees for the marine zone the national curators are able to provide an overview of the range of development and research works being undertaken in the sector. Their responses have been summaries below with full copies available in Appendix 10.1.1 (EH) and 10.1.2 (HS).

Although EH and HS as national bodies have curatorial responsibility for the marine zone it should be noted that county curators have responsibility to the low water mark. Individual county curators have not been target for this phase of the project, but it is worth noting that when developments do not go beyond the low water the responsibility for archives is often more clear, but once beyond the low water mark or for developments which cross the boundaries the responsibility becomes blurred.

Analysis of responses

Q: What are the main projects being undertaken below low water?

England: *Archaeological projects in support of marine development consent licensing include pipelines, submarine cables and offshore wind farms. There is also research work in support of examining environmental implications of marine development, often resulting in the production of guidance documents.*

Although not included within the response from English Heritage it should be noted that there is also a range of work being undertaken on Designated Historic Wreck Sites including survey and excavation.

Scotland: *Currently no excavations are taking place on scheduled monuments/designated wreck sites below the low water mark. The extent of work subject to consent from Historic Scotland is limited to some geophysical and diver-based monitoring. In the last ten years however, there have been additional geophysical surveys, as well as limited excavations in Scapa Flow, Sound of Mull and Kinlochbervie. In recent times, HS has grant aided the excavation of the remains of a bronze-age logboat from the banks of the Tay estuary at Carpow.*

Where developer funded projects are concerned there are sporadic projects across Scotland, mostly involving desk based assessments, followed up by geophysics and some diver-based/ROV evaluation.

The responses indicate there are more development-led archaeological projects on-going around the English coast. In Scotland there is more of a balance between work being undertaken in the research sector with that from marine development.

Q: What types of archive are being generated (eg paper, photographic, digital (including geophysical survey), object, samples)?

English Heritage replied that all of these types of archives were being generated. Historic Scotland provided detailed information on the type of data being collected and where it has been archived. In summary large geophysical survey datasets and associated reports are archived with the RCAHMS, and copies of the data also passed to the UK Hydrographic Office. For Protected Wreck Site excavation projects objects and samples are held by the National Museums of Scotland, while the paper, photographic and digital archive is held by the RCAHMS. The object archive (postcards) recovered from Scapa Flow have been donated to Orkney Archives and Libraries service, with reports and images being held by RCAHMS.

There is less certainty related to the archives from development funded projects from Scotland. Historic Scotland currently has limited involvement in this area of work. An example provided is that conditions attached to work in Shetland under Zetland Act 1974 works licensing provisions will be the responsibility of Shetland Council.

The responses indicate that all types of archaeological archive are being generated from investigations around the English and Scottish coasts.

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.*

Scotland: *Significant information was supplied in the above question related to the types of archive being produced. Further information highlighted that the RCAHMS is the national repository for documentary and photographic archives; National Museums of Scotland is the major repository for artefact collections (outside Edinburgh, regional museums services often lack the capacity to cope with marine finds). Where published/grey reports are created, copies will often also be sent to the relevant member of ALGAO UK for local interest. RCAHMS has also adapted OASIS for use in maritime archaeology.*

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.

Scotland: *For Designated Wreck sites and Scheduled Monuments archive deposition is included within conditions of consent. These conditions are easier to enforce where Historic Scotland has grant-aided work.*

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.

Q: Have you noticed any changes in the numbers and types of archives produced over past 5 to 10 years?

England: *EH has not noticed particular changes to the numbers and types of archives produced, other than geophysical 'big data'. When questioned whether this was due to a lack of structured system of conditions on consent and available facilities they responded: 'The mechanism of using marine development licence conditions to specify deposit of technical reports should provide structure and more should be reaching the NMR as prepared by appointed consultants. However, ALSF commissioned projects should fulfil archiving duties that English Heritage has worked on for many years'.*

Scotland: *There has been an increase in digital data sets derived from geophysical survey work, which is a trend that is expected to continue. There has been slightly less excavation work, although this isn't necessarily an indication of a long-term trend.*

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.

Q: Are there any large projects or schemes which are likely to increase the volume of archive created in the future?

England: *Any major project (e.g. offshore wind farms over 100megawatts, major port developments etc) will create archive. Decisions related to these larger schemes will be determined by the Infrastructure Planning Commission (IPC) and the primary consultee for 'nationally significant' marine projects who will be the Marine Management Organisation.*

Scotland: *Development activity – due to potential offshore developments (particularly renewables) and possible changes in the regulatory environment through the UK and Scottish Marine Bills, that there will be a modest increase in developer funded marine archaeology, which will increase archive creation. In terms of research there is a potential project in Skye looking at Medieval boat remains, but that is dependent on initial assessment work.*

The differing scales of development off England and Scotland are evident here with HS responding with details at a project specific level, and EH providing a generic response. Both organisations mention proposed changes to the legislative and management structures in the Marine Zone. It is yet to be determined how these changes might affect the consenting process and potential effects on archaeological archive production and deposition.

5.2 Regulators, consent issuing bodies and seabed owners

The current marine licensing and consent procedures mean there are a number of departments, organisations, bodies and owners that have an influence on the creation and deposition of archives. These groups were included within Element Three interviews to help determine the framework and mechanisms by which archives are being created, whether these are currently providing for archives and their long-term curation, and to gauge future creation levels.

5.2.1 Department for Culture Media and Sport

As the department responsible for heritage, museums and specifically licensing under the Protection of Wrecks Act DCMS was asked to provide a statement in relation to the collection and deposition of archaeological archives from the marine zone. The full statement is available in Appendix 10.2.1.

In summary DCMS acknowledge that archaeological archives in general, and maritime archives in particular, present challenges. They indicate that EH and the MLA, as DCMS sponsored bodies with responsibility for dealing with archaeology, museums and archives, should work in partnership with local government and the archaeological sector to see how 'these practical issues might gradually be overcome on a case by case basis'. They welcome the AAF guidance published in 2007 and also 'encourage anyone undertaking marine excavations to consider the deposition of the records in advance as part of the excavation plan process'.

It is encouraging that DCMS support work developing approaches to archaeological archiving. However, the suggestion that issues can be overcome 'on a case by case basis' indicates that the true scale of the current situation related to maritime archives has not been fully realised.

5.2.2 Marine Fisheries Agency

The MFA are the key consenting body for the marine environment. All larger development schemes require an application through the MFA which may be subsequently granted licences, on which there are various conditions of consent. Different staff deal with particular areas of consents, a number of staff were kind enough to respond to the survey questions for the areas they are responsible for, their full response is included in Appendix 10.2.2.

Responses revealed that the main projects being applied for through the MFA are aggregates dredging, offshore renewable energy projects, wind farms, wave and tidal. When asked whether there were specific requirements for deposition of archaeological archives included within conditions of consent, they replied that there is nothing specific on archiving. Although the aggregate industry do follow the relevant best practice documents and in newer consents the MFA asks for an OASIS form to be completed. With the renewables licences under FEPA there have to be written schemes of investigation taking account of any items of historic importance, and plans must be in place for reporting any finds during work.

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, they leave this to EH.

Over the past few years maritime heritage conditions on consents have increased. Marine industries have developed and changed over time, but the MFA is required to protect the historic environment with all applications made. Due to the ongoing dredging and renewables developments archives generated are likely to increase.

5.2.3 Environment Agency

Contact with the EAs Senior Archaeologist did not include a detailed response to the Element Three questions. The EA did provide a statement (Appendix 10.2.3) which concentrated on the work that they are involved with and commission. The majority of this work is beach recharge and projects requiring Strategic Environmental Assessment (SEA). Many of the projects requiring an SEA are ‘hold the line’ or coastal re-alignment. Despite a request for EA archaeologists to add further information no further data was forthcoming. As an agency they generally contract out archaeological work and expect the contractors to manage the archive.

5.2.4 Crown Estate

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 ie 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".

5.2.5 National Trust

The National Trust (NT) generally only own the shoreline down to the foreshore, in a small number of areas they own parts, or lease them from TCE. They own a number of harbours - Newton Haven in the north east, Newtown in the IoW, and also Strangford Lough in Northern Ireland. They own over 700 miles of coastline, so most of their archaeological concerns include material eroding from cliffs, although they acknowledge they do have areas of concern over the fate of archives beyond their direct control such as the prehistoric footprints at Formby. They occasionally record and monitor sites in the inter-tidal zone such as wreck sites in the north east region and the medieval jetty and fish trap at Dunstanburgh, but do not generally carry out projects below low water. They hold their own Sites and Monuments Record, which they disseminate in summary form through the Archaeology Data Service. The only significant maritime archive they own includes fifteen pieces of timber (possibly from the Swash Channel Wreck) which washed up on Studland beach, the final repository for this is currently uncertain.

In terms of best practice the NT would seek to treat archives as outlined in the latest guidance (Brown 2007). Their archive policy requires that all archives should be stable and publicly accessible. Material archives can be deposited either in public museums or at any of the NT's own 140 or so registered museums.

Through their survey response (Appendix 10.4.2) the NT indicated that have not noticed particular changes in the types and numbers of archives generated over the past five to ten years. When asked about projects which may increase future archive they highlighted a long-running project at Formby to record the prehistoric footprints. They are also very aware of coastal change and how this might create new archives. They are currently working to assess future impacts and how these are mitigated.

5.3 Marine industry sectors

The key trade associations for the major UK marine industries were contacted. The interviews were structured around the questions outlined in Section 3 and sought to gather information on archives being produced, how these were included (or not) within licensing and consents, how archive creation had changed over the past 5 to 10 years and views on whether archive levels would increase in the future. Additional desk based research was undertaken on the potential scale and distribution of future developments within each sector to feed into the assessment of future archive creation and hence capacity requirements.

As highlighted in a number of the sections above development-led marine projects are expanding, leading to higher levels of archive production. With a lack of clarity over the inclusion of archives within conditions of consent and a lack of museums or repositories with responsibility for the marine zone, this area is of particular concern.

5.3.1 Marine aggregates

The British Marine Aggregate Producers Association (BMAPA) were contacted in relation to the project (see Appendix 10.3.1). In recent years Defra's Aggregates Levy Sustainability Fund has helped contribute to the development of a range of research and best practice initiatives that mean the aggregates sector are often leading the way with the assessment and mitigation of marine cultural heritage.

The Crown Estate host a range of information on aggregate dredging within their marine estate. Their map of licensed areas (see Figure one) demonstrates the geographical spread of extraction. This helps determine which areas of the UK coast from which archive is likely to be generated in relation to the aggregates extraction sector.

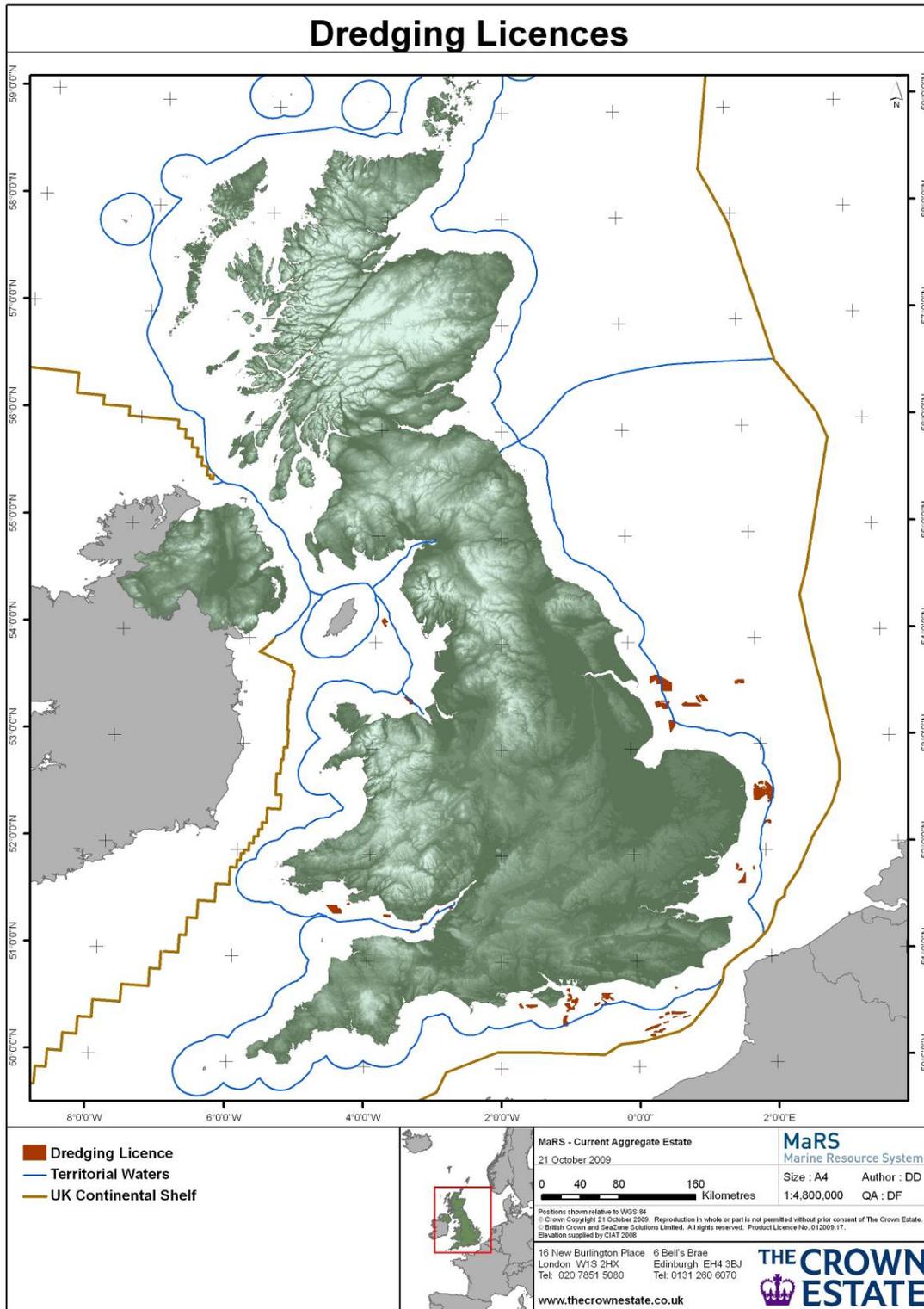


Figure one: Aggregate dredge areas around the UK coast (Copyright Crown Estate)

The main projects being undertaken by the aggregates industry are the development of new aggregate licences involving the site investigations, applications for permissions to dredge which include EIA and associated studies, and ongoing management and monitoring of existing permission areas.

Archives generated in support of this work include original geological data which is usually held by the operators as it is commercially sensitive. The EIA and monitoring reports are provided to regulators and statutory advisors, and are increasingly being made publicly available via a web-based portal operated by the regulator: 'Reports relating to finds recovered during the dredging process are directly reported to various archives, via the archaeological reporting protocol jointly developed by BMAPA and English Heritage and administered on behalf of BMAPA by Wessex Archaeology'. These reports are widely circulated and, in some cases, the finds may be provided to museums for public display.

Modern licence permissions include a clause that formally requires the Protocol for Reporting Finds of Archaeological Interest to be followed during all operations. There are also clauses in conditions for monitoring that OASIS forms should be completed. This will become widespread over the next five years or so as old licences are renewed. Interestingly it appears there are currently no formal conditions to ensure the archaeological archives (including all records produced in support of production of reports) generated as part of the EIA process are deposited in a public repository.

The sector is now producing more reports of finds encountered during production operations, this is due to increased awareness amongst staff. There are also some local increases due to new areas being dredged.

5.3.2 Offshore renewables

The offshore renewables sector is a relatively new marine industry. Over the past 5 years in particular it has been undertaking development in the marine zone which is generating large amounts of archaeological archive. The professional association for offshore renewables is the British Wind Energy Association (BWEA, www.bwea.com), they were contacted and responded to the Element Three questions (see Appendix 10.3.3).

Recognising the need to build the management environment within which the renewables developments and licensing occurred, TCE helped establish Collaborative Offshore Windfarm Research Into the Environment (COWRIE) a registered Charity set up to advance and improve understanding and knowledge of the potential environmental impacts of offshore windfarm development in UK waters. COWRIE have set up a data repository where all data from Round 2 projects is made available: <http://data.offshorewind.co.uk/>. Using resources available from TCE website the geographical distribution of the areas in which the offshore wind farm zones are situated can be viewed. It is interesting to note that the Round Three wind farms will potentially be opening up large areas of the seabed for development, much of this area will not have been previously subject to assessment for marine cultural heritage and may provide large amounts of archive in the future.

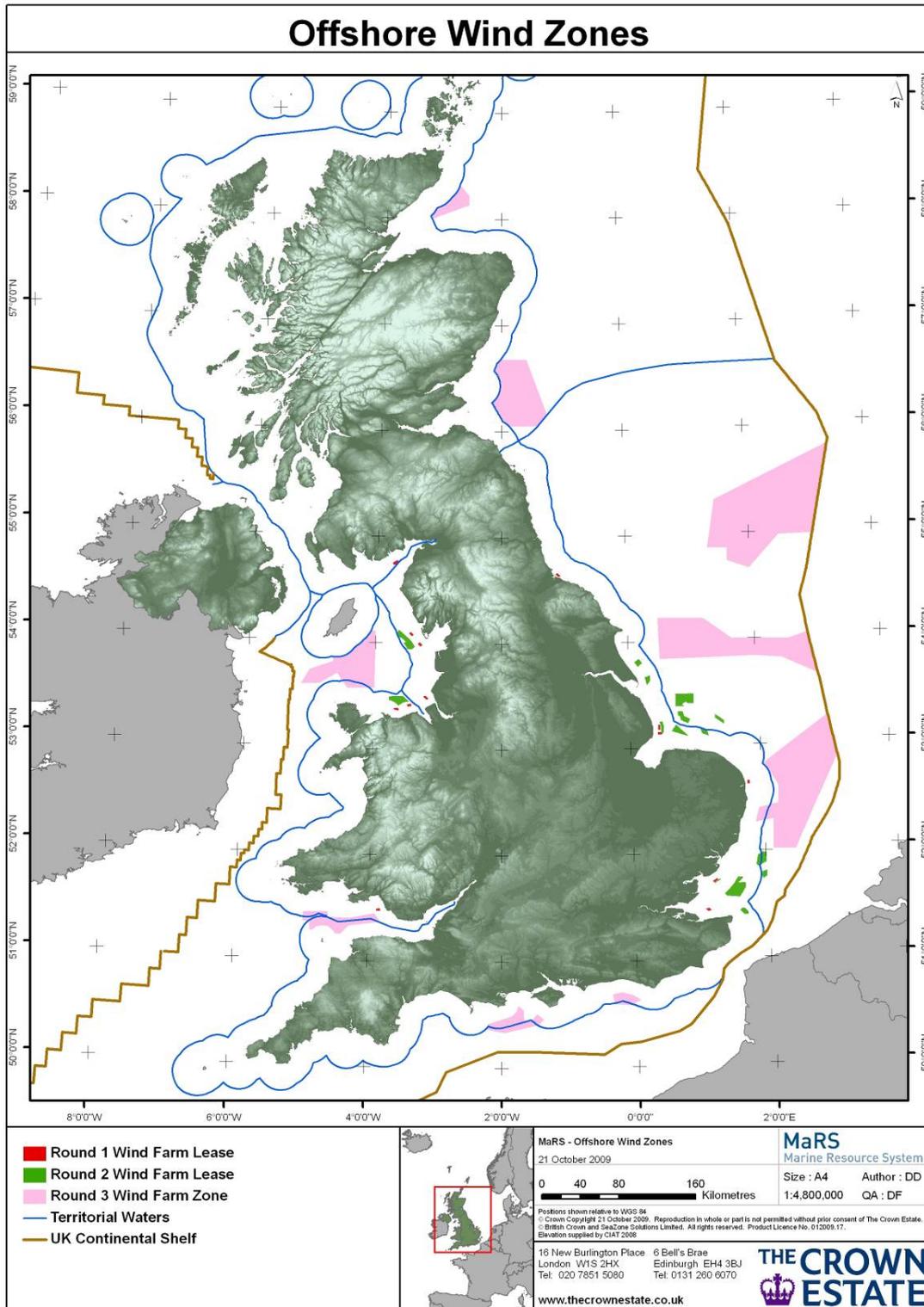


Figure two: Locations of Offshore Wind Farm Zones (both Copyright Crown Estate)

The BWEA responses to the Element Three questions provided the following information:

The majority of development within this sector is wind farm related, although some wave and tidal projects are now being developed. The EIA process related to the wind farm developments produce geotechnical and geophysical data which are studies used as part of archaeological assessment. As most mitigation is via avoidance there is little intrusive excavation work undertaken.

The requirement to make data related to renewables development publicly available is now a condition of the lease from TCE for Round Two windfarms, and will be for Round Three. Although this was not included as part of the Round One leases many developers are also making data from these available. Although this does not specifically mention archaeological data it is included within the whole. COWRIE has an environmental/technical group, on which archaeology is represented by an English Heritage member of staff who would be consulted on matters related to archaeological archives.

There has been a significant expansion in the creation of archives from when the development of offshore wind farms began in earnest in 2000. The forthcoming Round Three wind farms will see this increase even further. With the development of wave and tidal power schemes this will provide further increases in archives. The location of many of the tidal power schemes can be predicted due to the schemes' need for the strongest tidal flow. However, wave power could be more widespread as the technology develops.

5.3.3 Ports and Marinas

Ports and marinas have been expanding sectors, particularly over the past 10 years. Requests for responses to the archives questions from this sector were not successful, so further research has been undertaken to review the extent of the sector and potential future expansion which may affect archive production.

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. The Major Ports Association provides a location map of its membership, Figure three, which demonstrates the geographical spread.



Figure three: Location of UK Major Ports Group members
(<http://www.ukmajorports.org.uk/locations.asp>)

The current available UK port capacity has been recognised as insufficient:

“Demand for port capacity will grow. In the container and ro-ro sectors, we expect an average annual growth rate of around 3-4%. In time, this growth will require a significant increase in capacity, beyond that which has already been approved in the last two years. Against the background of strong industry growth at the global level, the Government expects that the market will be ready to fund further expansion, especially as we propose no substantive change to the regulatory and operating framework for ports” (Department for Transport, 2007).

“There is an urgent need for more deepsea container port capacity in the UK. Port operators have expressed their fear that without substantial expansion the UK's major ports will run out of capacity within six years. According to Drewry Shipping, 99% of the UK's imports (in volume terms) enter by sea. Capacity constraints lead to well publicised congestion at peak times and loss of business to European ports.” (Port Strategy, 2005).

This gives an indication of the levels of development activity that should be expected over the coming years. Some of this activity is already in progress with work in Portsmouth, Falmouth, Felixstowe, Poole and the London Gateway either completed or in progress. Further schemes for Southampton, Dover, Humber and Bristol are also in development. For the larger schemes which trigger an EIA the assessment of archaeology is undertaken alongside the other environmental work (although the fate of the archives from these is uncertain). However, for smaller scale developments it can be unclear where the responsibility for archaeological assessment lies as some works may not be covered by the current curatorial framework. This situation was

highlighted by the Princes Channel site where a scheme to remove ‘debris’ and features that were believed to be a hazard to navigation encountered an historic shipwreck (Keys 2004; Firth 2006). The assessment of heritage within small scale developments, which may be permissible through ‘harbour consents’ is an area which requires further investigation in relation to curatorial responsibilities.

5.3.4 Oil and Gas

The oil and gas industry is significant in terms of the UK economy. It is also relatively visible on the sea surface, particularly within the North Sea area. Figure four demonstrates the distribution of oil and gas fields. Oil and Gas UK (www.ukooa.co.uk), the trade association for the offshore industry was contacted for this project, they canvassed their member companies (see Appendix 10.3.2 for full response), and provided a summary response in relation to marine archaeological archives. This indicated that there has been little work in terms of archaeological assessment, they had only seen one assessment report on behalf of an operator in the east Irish Sea. The reason provided for this was “This is mostly due to the fact that most exploration and production activity is in deeper water and not coastal”. Further information provided stated:

“Geophysical surveys are undertaken prior to the placement of rigs and installations and to survey potential routes for pipelines but there is no requirement for the survey data or subsequent analysis to be deposited. Any feature of interest would be recorded in the Environmental Statement for a project which are public documents.”

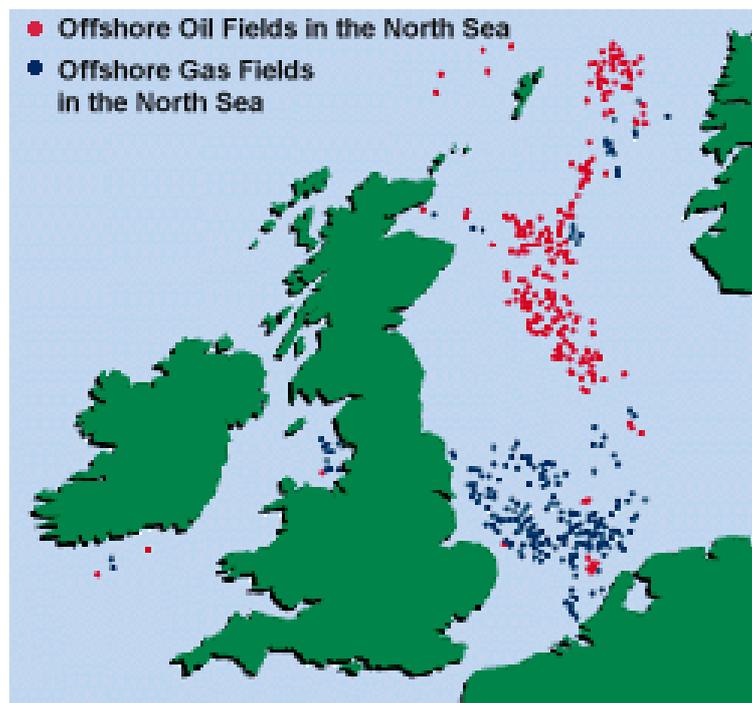


Figure four: Distribution of offshore oil and gas fields
(<http://www.ukooa.co.uk/education/leaflets/sheet003.cfm>)

The industry does not predict any large future schemes that would increase future archive from this sector. As much of the oil and gas infrastructure has been in place for decades, this means most construction predates current Environmental Impact directives and regulations. However,

relatively recent changes means there are instances when Environmental Assessments are required (see

http://www.ukooaenvironmentallegislation.co.uk/Contents/Topic_Files/Offshore/EIA.htm for further details). As there is prospecting for further reserves continuing there may be a chance that archive generated by this sector may increase in the future.

Any future prospecting and development that does take place will benefit from the findings of the Government Strategic Environmental Assessment programme which has been undertaken around the UK. This was prompted by the need to appraise environmental protection and sustainable development to factor them into government plans and the decision making process related to oil and gas licensing rounds (Department of Energy and Climate Change). This process has divided the UK offshore areas into eight zones. These SEA assessments have considered cultural heritage as part of this process.

6. Analysing capacity and related issues

The results of the survey, as included above, and in the Element One and Two reports, have provided the data on which to base assessments of current and potential future capacity for maritime archives.

6.1 Capacity for current archives

The Element Two report identified the following levels of undeposited archive:

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.

* Note- the definition of a public museum include those that are government or local authority funded

It was also recognised that the survey has provided an assessment of a proportion of the undeposited archive, as the levels of response from some sectors was lower than others inevitably the actual figures will be more extensive. The Element Two report also examined the geographical distribution and density of archive holders (Figure five) and Receiver of Wreck Amnesty Reports (2001) (Figure six). This provides data on where the highest levels of undeposited archive is held. (Figures six - eight can be found at the end of this section).

These results can be compared to the findings of the Element One report which mapped maritime collection areas and identified museums and archives which do and do not collect maritime archives (Figure seven).

In terms of capacity needs there are clear concentrations of material in particular areas of the coast. In England the levels of archive for much of the South West, South and East coasts are high, and there is also a concentration in the North East, this was further emphasised by the

distribution of the RoW Amnesty reports. This relatively consistent level of density around the coast, with some spikes in counties and regions, underlines the urgent need for increasing archive capacity. In Scotland the numbers of archives are generally lower, but there are some recognisable concentrations in regions with Aberdeenshire and North East Moray, Lochaber, Skye & Lochaish and Argyll and the Islands, Orkney and the Shetlands all showing high responses within the survey and from the RoW Amnesty.

Comparing this to the distribution of museums that collect maritime archives demonstrates that in England there are few available museums in the South West, the North West and some parts of both the East and North East. There are more collecting museums in parts of the central South Coast, Eastern England and some parts of the North East. Although it should also be remembered that many of these museums will collect from the coastal zone, but rarely collect from the marine zone.

In Scotland there are few Scottish regional museums which actively collect maritime archives. Although this situation should be seen in context of the more structured system where generally the Royal Commission on the Ancient and Historic Monuments of Scotland are able to accession all parts of archives other than objects which are collected by the National Museums of Scotland.

It should also be noted that during the Element One survey museums were asked whether they would be willing to collect maritime archives if their reasons for currently not collecting them were solved, and only 18% said that they would.

The net result shows differences between the situation in Scotland and in England. In England there is very little capacity to deal with the current levels of undeposited archive within museums and archives.

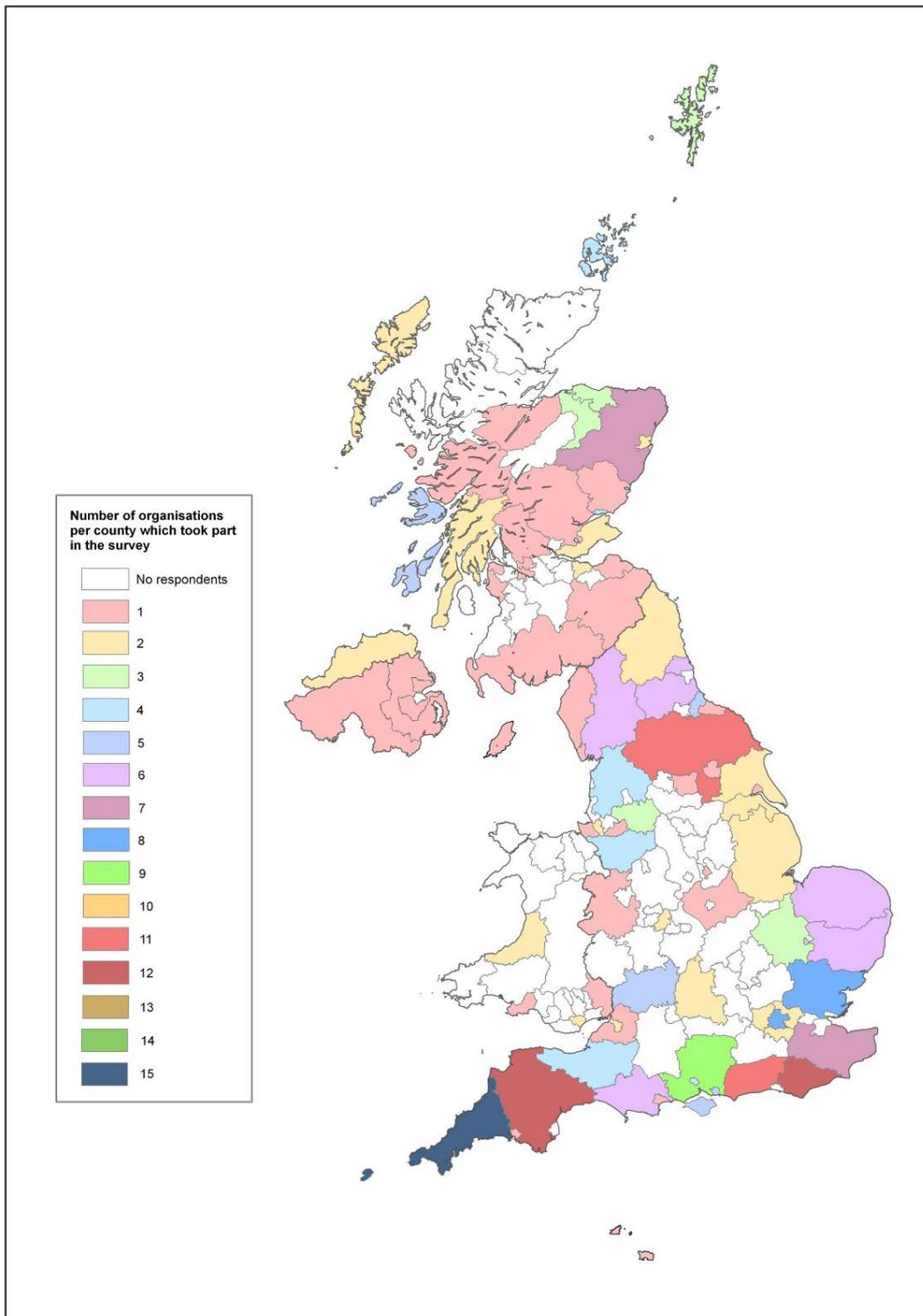


Figure five: Distribution and density of archive holders which took part in the survey

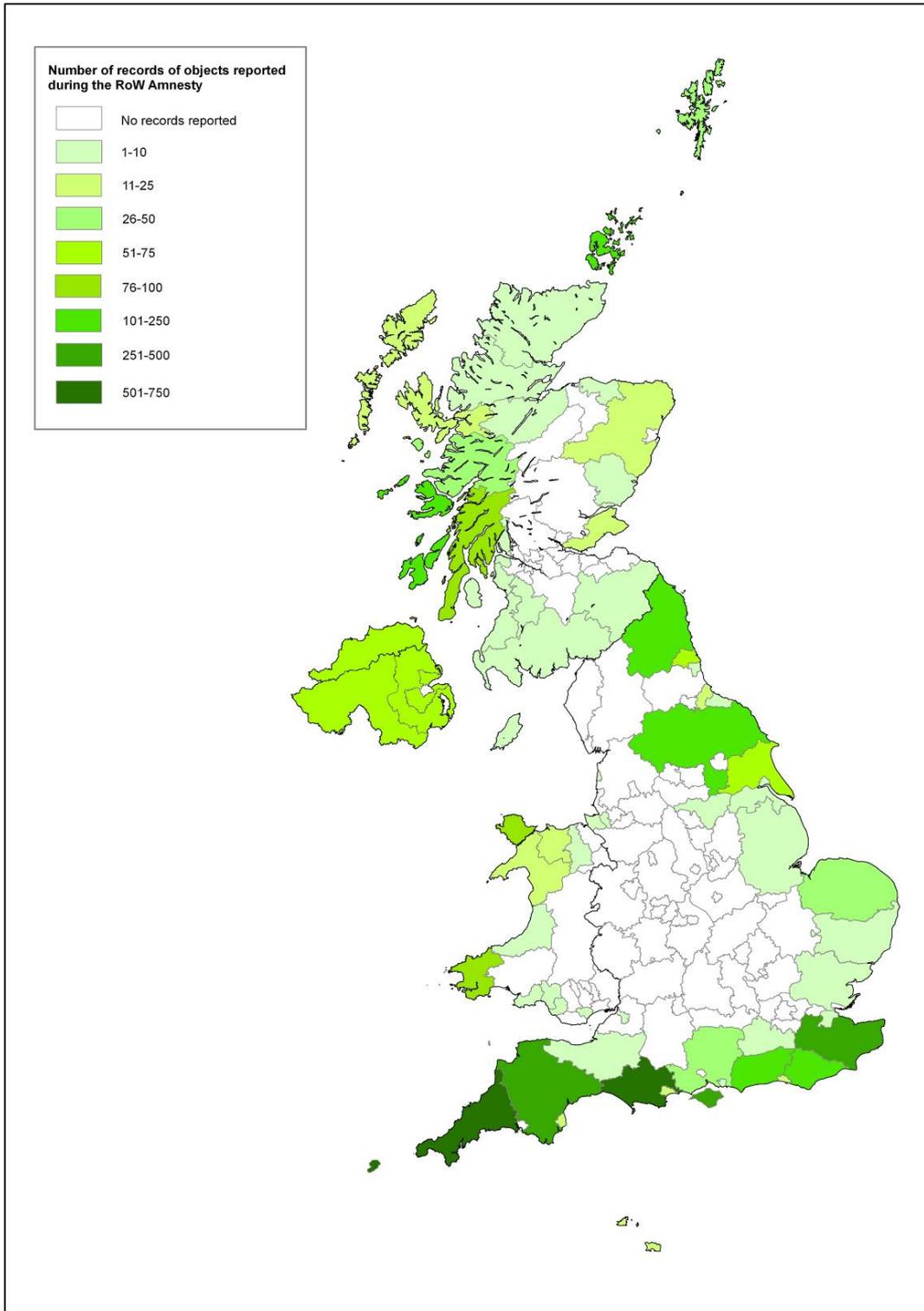


Figure six: Distribution and density of reports from the Receiver of Wreck Amnesty

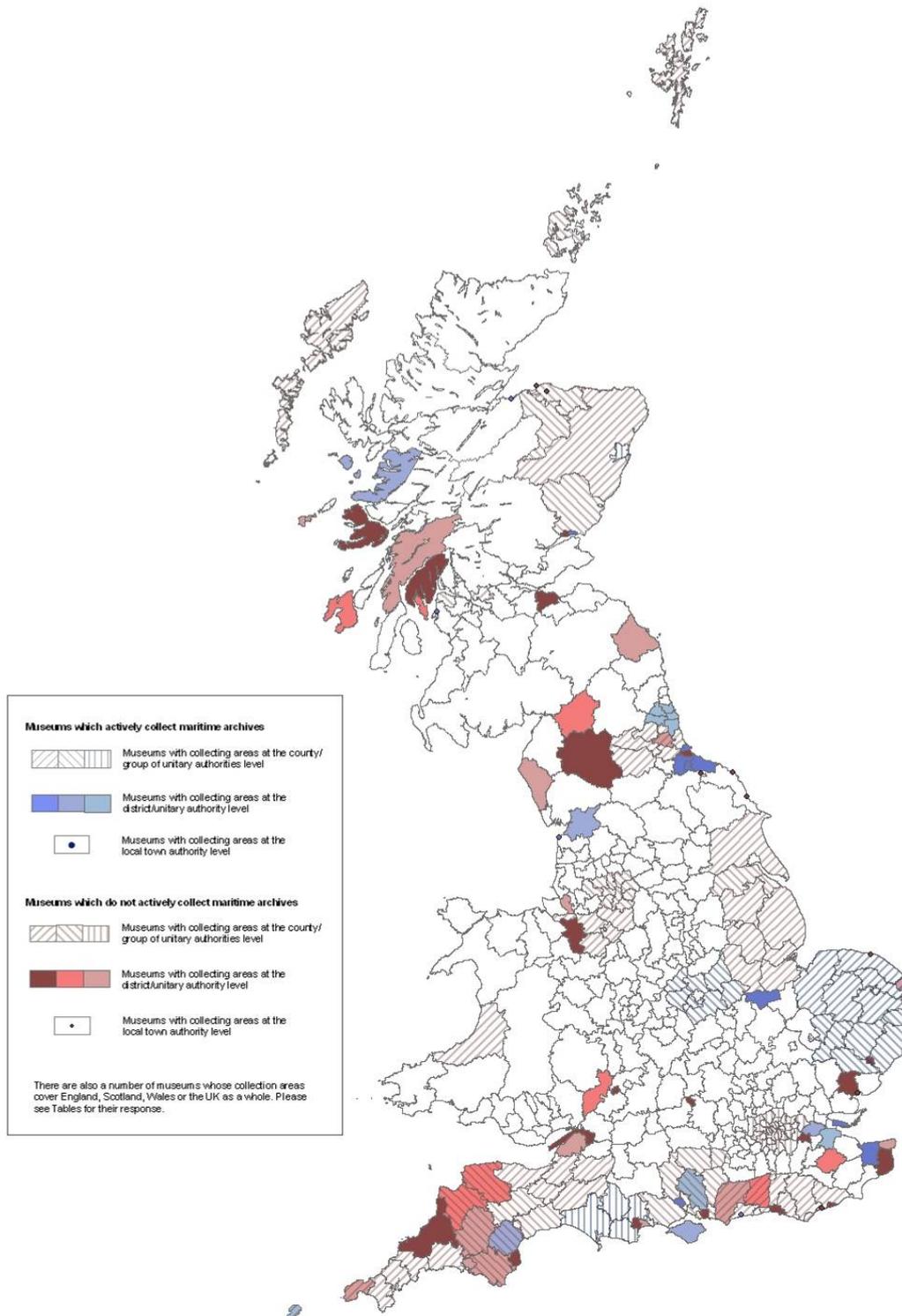


Figure seven: Distribution of museums and archives which do and do not currently collect maritime archives

6.2 Capacity for future archives

With the situation in relation to capacity for current archives being very limited, particularly in England, the ability to deal with future archive creation must be urgently considered. In terms of potential future creation the survey revealed:

Archive creating sectors: 75% of those responding expected the number of archives to grow.

Archaeological curators: Offshore developments are expected to increase the levels of archive creation, with some potential for research projects to also grow.

Regulators, consent issuing bodies and seabed owners: There is an expectation of increased maritime archives due to the expansion of offshore development, and also nearer shore with ports and harbours.

Marine industry sectors: Only the oil and gas industry is not expecting significant increases in archive related to development projects. However, with on-going aggregates extraction and prospection and port development, activity in this sector is high. A particular future growth area will be the offshore renewables sector. Round Three licensing of significant areas of seabed is currently in progress.

In addition to these responses it should be noted that recommendations from the Element Two report included the need to develop reference collections and typologies of key maritime finds and structural elements. It also recommended that a system is developed for the acquisition of particularly significant items reported through the RoW to secure them for future research and resources are found to purchase important privately held archives when they are at threat of dispersal through sale.

Future archive capacity needs to ensure that the above requirements are all included within future plans. Inevitably this will require the input of significant resources and new solutions to deal with both the current back log and potential future creation.

Key capacity requirements:

Short and medium term: it is extremely urgent that resources are put in place to ensure that there is a public repository able to take newly created archive. This may require the establishment of an interim measure where archives are held while long term solutions are found. This must be put in place to establish a system (and culture) which makes clear for all archive producers, (but particularly through the development control system), that archives are important and they must be accounted for from the inception of a project. This would ensure that the costs of archiving are included within project tenders or designs and clients or funders are aware of their responsibilities for them. Any 'interim' system should also be able to respond to the acquisition of key artefacts through the RoW system and any 'at risk' private collections.

This would also require the development of a range of guidance and best practice documents and resources that would help establish the system for archives.

Long-term: The development of a coherent framework which secures maritime archives for the nation and makes them publicly available will involve a range of developments within the archaeological, archive and museum communities. In England the low capacity of current museums and little willingness to accession maritime archives in the future, means the

development of a national maritime archaeological archive repository or a number of regional repositories must be considered. This project has provided an indication of the levels of current and future archive that any such repository will require the capacity to deal with. Plans for dealing with the current back-log situation must also be developed while a long-term solution is being considered.

It should be recognised there is much debate in terrestrial archaeological archives about preservation by ‘sample’ rather than ‘record’ in recognition that it is not possible to keep everything (Swain 2005). However, this debate is happening after many decades of archaeological archive creation that has resulted in large bodies of material for a wide range of periods and site types. Hence there are type series and reference collections for many materials, classes of object etc. Maritime archaeology has not had the decades of excavation undertaken, and there have been very few excavation archives that have ended up in public museums. The 1970s terrestrial model of rescue and ‘collect as much as possible to demonstrate what the past can tell us’ has not happened in maritime archaeology (with the possible exception of the *Mary Rose* – although that was not a rescue situation). It could be argued that the increase in marine development (through offshore renewables, aggregate extraction etc) could be compared to the large scale terrestrial 1970s situation. This should be seen as an opportunity to gather maritime archive material and to develop appropriate approaches and selection and retention strategy.

6.3 Factors influencing archive deposition

During the project it has become clear that there are a number of key factors which are influencing the deposition (or non-deposition) of maritime archives. While many of these have been articulated in detail within the previous reports, a summary has been provided here as they are issues which must be considered alongside the development of archive capacity.

Systemic Issues

- Legislation – archive production and deposition is being particularly affected by law related to the salvage regime and a lack of legal protection for marine heritage sites (other than small numbers of Designated Wreck Sites);
- Roles and responsibilities of museums and archives, curators, contractors, clients etc. are unclear;
- The long term dislocation of maritime archaeological archives from both museums and terrestrial archives has masked the extent of the problems; and
- The cycle, in England, of not imposing conditions on consents as there are no repositories to take archives and the subsequent backlog of un-deposited and un-curated archives must be broken. The relatively recent inclusion in conditions imposed on development of a copy of the final report being deposited in the NMR and an OASIS form to be completed in is an improvement, but this is glossing over the archive generated in support of the final report and the pressing question of where this should be deposited.

Practical Issues

- There are few, if any, museums or repositories that collect maritime archives. As many of them do not have the space, facilities or training to deal with them there are few places willing depositors can go to for advice.
- Conservation – there is a recognised deficit in capacity (Panter 2007). This will become more pronounced as a more structured approach to maritime archives is developed.
- It is difficult to ensure historic artefacts are acquired through the RoW process at present.
- It is difficult to develop informed selection and retention policies while there are no research or reference collections. However, it must also be recognised that it is not

practical or desirable to conserve every piece of ship timber or every element of an archaeological site.

- There is poor understanding of what archives are held where. As they are so disparate the lack of sign posting makes them difficult to access for researchers and members of the public alike; and
- Best practice can not be followed due to lack of facilities, and crucially for contractors, because there is often a lack of stipulation/consent that archives should be deposited in a public repository.

Educational Issues

- A lack of structure means many maritime archaeologists remain unfamiliar with archiving practice, leading to archive planning not being included from the project outset.
- There is a lack of specific guidance available for those who may be looking to deposit an archive, or for curators or regulators who may be responsible for imposing conditions on consents or permissions.
- There is a lack of understanding about what a maritime archaeological archive might consist of and how big it might be. Many museums are concerned that they will be asked to accession lots of waterlogged wood and the perceived associated curatorial problems do not in fact match the reality of most maritime archives.

7. Sector response to potential solutions to archive situation

The development and delivery of short and long term solutions to the archive situation will take the input from across the sectors, from high level policy to those on the ground investigating the seabed. The form and extent of the solutions are yet to be fully debated, but to gauge opinion during the course of the project a number of survey participants were asked what they thought the most appropriate long-term solution might be. These responses were text-based rather than included within the on-line survey. The examples here demonstrate a range of opinion across the archive holding and creating sectors, as this is a relatively small sample it can not claim to be comprehensive, but does provide a snap-shot of opinion.

Public Museums - Dr JD Hill of the British Museum was interviewed for the project. His thoughts on possible long-term solutions indicated that a national repository should provide enough capacity. He “would strongly argue that this must be attached to a museum which provides a larger, established structure to support the archive. This means that more would be done with the archive in terms of access, display and research – and provides a larger conservation Department and Collections Management Department to support the archive”.

Recognising that funding is an issue, he suggested there is a need to better understand the scale of the problem before possible options could be determined. In his view if there was start up funding available from a source such as the HLF then the Government would have to pick up the funding in the medium term. It was thought that the archive may only need a long-term staff of around three, with more involved with initial start up. Such a repository “would have to develop a clear and reasoned acquisition policy”.

Divers and individual collectors - Mr D Wendes, diver, boat skipper and author provided the following thoughts on the archiving situation: “There is a huge private archive of material which is an unused resource. Most people are happy to allow people to study their collections if they are interested. There is little knowledge of what is held where and by whom, this is partly due to the lack of a recognised centre of expertise to go to or any way to record who has got what. For

instance a database of holdings would be very useful. There is a need to provide signposts to advice and expertise for those who are diving and researching maritime archaeological sites”.

“There are a lot of the early divers who have been collecting and investigating for many years who are now retired. Many of them would be pleased to have somewhere that their collection could go if it would be cared for and made available”. He thinks that a national facility would be supported through donations and could also provide a significant PR opportunity within the diving and wreck research community and provide specialist advice and an available reference collection.

Contractors - Dr A Firth, Head of Coastal and Marine section at Wessex Archaeology, provided the following thoughts. “In general WA would be supportive of a national (English) centre for maritime archaeological archives. Would advocate regional archives, but a national one is likely to be more practical in terms of funding etc. Could seek to provide a number of key museums in MLA regions to become nominated museums for maritime archaeological archives, this would allow use of established museums, but is still likely to require significant funding in terms of staff, training and facilities. Digital archives would definitely need to be included in any future maritime archaeological archive centre”.

Research Sector - Mr D Parham, Lecturer at Bournemouth University indicated that the University would definitely use a maritime archaeological archive, whether regional or national, if it existed. “If such a facility existed then BU would have raised more material and fully utilised any available services. At the moment there is too much pressure for the University to hold material [as there is no archive to pass it to]. Items have been left on site and subsequently lost due to lack of facilities”.

8. Conclusions

This Element of the project has further examined the nature of archives being generated across the sectors to add further weight to the need to develop archiving capacity. The interviews with curators, regulators and industry provided further information on the scale and nature of current archive production and an assessment of future demand, it also helped clarify systemic problems over roles and responsibilities.

It is clear the extent of the problems related to maritime archives have previously not been realised and urgent action must be taken. As stressed by DCMS in their response they “...believe that professionals are best placed to respond to the challenges and that it is for English Heritage and the MLA, as DCMS sponsored bodies with responsibility for dealing with archaeology, museums and archives, to work in partnership with local government and the archaeological sector to see how these practical issues might gradually be overcome on a case by case basis”. This project has demonstrated that the scale of the problem means that it can not be ‘overcome on a case by case basis’, it is now the responsibility of all those involved to contribute to a solution. This will require the investment of resources to ensure that more of our maritime archaeological heritage is not lost to the research community, schools, community groups, and public as a whole.

9. Bibliography

DCMS. 2007. *Heritage Protection for the 21st Century*. London: Crown Copyright

DCMS, 2008 *Draft Heritage Protection Bill*. London: Crown Copyright

Department of Energy and Climate Change, What is the SEA process?

http://www.offshore-sea.org.uk/site/scripts/documents_info.php?categoryID=39&documentID=5

Department for Transport, 2007 *Ports Policy Review Interim Report*, July 2007

<http://www.dft.gov.uk/pgr/shippingports/ports/portspolicyreview/portspolicyreviewinterimreport>

English Heritage, 2005 *Marine Archaeology Legislation Project*, University of Wolverhampton

Firth, A., 2006, 'Old Shipwrecks and New Dredging: An Elizabethan Ship in the Thames', in R. Grenier, D. Nutley and I. Cochran (eds.) *Underwater Cultural Heritage at Risk: Managing Natural and Human Impacts*, p35-36. ICOMOS.

Historic Scotland, 2008 *Scottish Historic Environment Policy: The Marine Environment*. Historic Scotland: Edinburgh

Historic Scotland, 2009 *Towards a Strategy for Scotland's Marine Historic Environment*. Historic Scotland & Built Environment Forum Scotland: Edinburgh.

Keys, D., 2004, 'Trading with the enemy: Tudor ship provides clues to Anglo-Spanish ties'. *The Independent*. 18th November 2004.

MCA 2007 RoW Role and Remit. http://www.mcga.gov.uk/c4mca/mcga07-home/emergencyresponse/mcga-receiverofwreck/mcga-rowrole/mcga-dops_row_receiver_of_wreck/mcga-dops_row_remit.htm

NAS, 2009 *Benchmarking Competence Requirements and Training Opportunities related to Maritime Archaeology*. Report on behalf of English Heritage. http://www.nasportsmouth.org.uk/research/images_PDFS/benchmarkingcompetency_final_report.pdf

Panter, I, 2007 In situ preservation versus active conservation: are we prepared for the deluge? in J. Satchell and P. Palma (eds.) *Managing the Marine Cultural Heritage: Defining, accessing and managing the resource*. CBA Research Report 153.

Port Strategy, 2005 *Port bosses express urgency*

http://www.portstrategy.com/archive101/2005/january/country_survey_uk_container_port_development/port_bosses_express_urgency

Receiver of Wreck, 2001, *Wreck Amnesty: Final Report*. Maritime & Coastguard Agency.

Swain, H., 2005 Archaeologists, Archives and Our Future. *The Archaeologist* 58(3), Institute of Field Archaeologists (pg 12)

10. Appendices – Element Three Responses

10.1 Archaeological Curators

10.1.1 English Heritage

Contact: Chris Pater, Marine Planner

Black = original questions and responses

Blue = additional queries

Red = additional responses

Would it be possible to add some further detail for marine projects that EH either manage or fund - including projects on Protected Wrecks and ALSF funded marine work?

Q: What are the main types of archaeological projects being undertaken below the low water mark?

Archaeological projects in support of marine development consent licensing include pipelines, submarine cables and offshore wind farms

How does this compare in volume/ nature to Protected Wreck work and ALSF projects? It probably needs to be clarified that English Heritage does not commission any projects that support marine development consent. All such work will be commissioned and paid for by the developer. However, English Heritage does encourage other funding mechanisms that examine the environmental implications of marine development to include the commissioning of guidance documents. For example, COWRIE commissioned and paid for *Historic Environment Guidance for the Offshore Renewable Energy Sector* (2007); and *Cumulative Impact Assessment and the marine historic environment* (2008).

Q: What types of archives are being created by these projects (eg paper, photographic, digital (including geophysical survey), object, samples)? All of these are generated

Q: Where are the archives from marine investigations currently deposited?

For marine mineral aggregate extraction hard copy reports are deposited by the contractor at the National Monuments Record. OASIS records should be noted.

What about the archives from the full range of investigations mentioned in the initial question? We advise all marine developers that if specific archaeological reports are produced that a copy is deposited with NMR

Do conditions on consent and/ or project briefs developed or commented on by EH specify where archive should be deposited? Yes

Q: Is the specific requirement for the deposition of the archive regularly included as a condition of consent?

Yes by conditions that the Secretary of State (Defra) is minded to attach to Food and Environment Protection Act licences. Archive deposition is also a condition of a PWA licence.

Would you be able to provide me with an example condition related to archives that might be attached to a FEPA licence. Hopefully the MFA puts online the awarded licences which would include such conditions

Do EH – either maritime team or regional offices – specify that archives derived from work outside of FEPA licences should be deposited? We are not able to comment on behalf of Regional Offices for such matters, but if a project is “outside of FEPA licences” then there will not be a mechanism for attaching conditions. If it’s a project commissioned by English Heritage then such factors should be taken account in line with MoRPHE guidance

Who is responsible for ensuring the condition of archive deposition is followed through and how is this enforced? The respective Secretary of State or Minister in any Devolved Administration, such parties also take any necessary enforcement action

Q: Have you noticed whether there has been a change in the number and types of archives produced over the past 5 to 10 years?

No.

This is quite surprising considering the scale and pace of marine development and the ALSF work. Do you think this is a reflection of the lack of a structured system for ensuring deposition rather than work being undertaken?

Geophysical 'big data'.

The mechanism of using marine development licence conditions to specify deposit of technical reports should provide structure and more should be reaching the NMR as prepared by appointed consultants. However, ALSF commissioned projects should fulfil archiving duties that English Heritage has worked on for many years

Q: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created and hence requiring capacity for deposition and curation?

Possibly

Could you possibly give some examples? Even if it is just indicating which sector these might come from. Any major project (e.g. offshore wind farms over 100megwatts, major port developments etc), but it's worth adding that such projects will be determined by the Infrastructure Planning Commission (IPC) and the primary consultee for 'nationally significant' marine projects will be the Marine Management Organisation

10.1.2 Historic Scotland

Contact: Philip Robertson, Senior Inspector of Marine Archaeology, Historic Scotland

Q: What are the main types of archaeological projects being undertaken below the low water mark?

Currently no excavations are taking place on scheduled monuments/designated wreck sites below the low water mark. The extent of work subject to consent from Historic Scotland is limited to some geophysical (Scapa Flow; Campania) and diver-based monitoring (Sound of Mull designated wreck sites). In the last ten years however, there have been additional geophysical surveys (Sound of Mull), as well as limited excavations in Scapa Flow (recovery of post cards), Sound of Mull (Duart Point) and Kinlochbervie. In recent times, HS has grant aided Perth and Kinross Heritage Trust to record and excavate the remains of a bronze-age logboat from the banks of the Tay estuary at Carpow (I haven't commented further on this project however as its probably a foreshore excavation as opposed to one below the low water mark).

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.

Q: What types of archives are being created by these projects (eg paper, photographic, digital (including geophysical survey), object, samples)?

Geophysical surveys are generating large digital data sets as well as reports. The Sound of Mull multi-beam data has been archived with RCAHMS (geotiff format as well as ASCII xyz data and reports). The ScapaMap survey reports have been archived with RCAHMS, and I understand that the digital data has also been passed to the UK Hydrographic Office.

Excavations – the Kinlochbervie project generated samples and objects (currently with National Museums of Scotland) as well as paper, photographic and digital archive materials (fully archived with RCAHMS). The Duart Point project is still being written up by Dr Colin Martin and the paper/documentary archive for this site will be lodged in due course with RCAHMS. The artefact and sample based archive for this site is with the National Museums of Scotland. The recovery of postcards from Scapa Flow (these were conserved by AOC Archaeology) has generated an artefact based archive which has been donated to Orkney Archives and Libraries service (Kirkwall) – the reports and images for this project are with RCAHMS.

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.

Q: Where are the archives from marine investigations currently deposited?

As above – RCAHMS is the national repository for documentary and photographic archives; National Museums of Scotland is the major repository for artefact collections (outside Edinburgh, regional museums services often lack the capacity to cope with marine finds). Where published/grey reports are created,

copies will often also be sent to the relevant member of ALGAO UK for local interest. RCAHMS has also adapted OASIS for use in maritime archaeology.

Q: Is the specific requirement for the deposition of the archive regularly included as a condition of consent?

Yes for designated wreck sites and scheduled monuments. This is easier to enforce where HS has grant-aided work.

Q: Have you noticed whether there has been a change in the number and types of archives produced over the past 5 to 10 years?

Increase in digital data sets arising from more geophysical work (we expect this trend to continue) –

Perhaps less in the way of excavation – though my hunch is that not too much should be read into this as any trend may be cyclical.

Q: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created and hence requiring capacity for deposition and curation?

There is the prospect of a project in Skye looking at medieval boat remains – depending on the outcomes of an initial assessment project, it is possible this may develop into something on a larger scale.

I would expect, given potential development offshore in the future (particularly offshore wind and marine renewables) and possible changes in the regulatory environment through the UK and Scottish Marine Bills, that we will see a modest increase in developer funded marine archaeology in Scotland. Any increase is likely to generate further archives.

Other Comments

Scottish Government has supported the Marine Environment Data Information Network to encourage better data management across the marine sector. In return, HS and RCAHMS have agreed to sign up to MEDIN data archiving principles.

10.2 Regulators and consent issuing bodies

10.2.1 Department for Culture, Media and Sport

Contact: Annabel Houghton, Historic Environment Policy Adviser

DCMS was asked to provide a statement in relation to the collection and deposition of archaeological archives from the marine zone.

"Whilst we fully recognise the challenges presented by archaeological archives in general, and maritime archaeological archives in particular, we believe that professionals are best placed to respond to the challenges and that it is for English Heritage and the MLA, as DCMS sponsored bodies with responsibility for dealing with archaeology, museums and archives, to work in partnership with local government and the archaeological sector to see how these practical issues might gradually be overcome on a case by case basis. It is helpful that English Heritage and partners are funding this study to inform how this might take place better in the future. We welcomed the Archaeological Archives Forum published guidance in 2007 on the best practice methods for archiving archaeological material and are aware that MLA continues to be linked to this work and supporting it. We would encourage anyone undertaking marine excavations to consider the deposition of the records in advance as part of the excavation plan process."

10.2.2 Marine Fisheries Agency

Reply from Aggregates advisor in black

Renewables advisor in green

Q: What are the main types of project being undertaken below the low water mark that involve archaeological input/ assessment/ conditions on consent?

Marine aggregates dredging

Offshore renewable energy projects, wind farms, wave and tidal.

Q: Is the specific requirement for the deposition of marine archaeological archives regularly included as a condition of consent, licence, lease etc? (if you could provide an example condition which includes archiving it would be much appreciated).

There is nothing specific for archiving per se. The aggregate industry do follow the heritage guidance documents and in newer consents we do ask that OASiS forms are filled out.

Guidance documents used are: Marine Aggregate Dredging and the Historic Environment Assessing, evaluating, mitigating and monitoring the archaeological effects of marine aggregate dredging. (2003) Protocol for reporting finds of archaeological interest (2005)

Renewable licences, under FEPA, state that the developer must produce a written scheme of investigation to determine there are no items of historical importance before construction starts. They must also have a protocol for reporting any finds that do happen and this is agreed with English Heritage.

Q: Are the archives from marine archaeological investigations being deposited in a museum or repository for their long-term care, curation and public access? And how do you as a consenting body review or check whether deposition has been undertaken?

We do not check whether deposition has been undertaken, some operators do send us copies of their OASiS forms that have been filled out.

I am unsure where the deposits once found go. We rely on updates from the operators and English Heritage to tell us whether anything significant has been found

We do not get involved with finds but leave this to English Heritage.

Q: Have you noticed whether there has been a change in the number and types of marine development that requires archaeological input and assessment (and hence creating archives) over the past 5 to 10 years?

As I only deal with one industry I cannot comment on the types of marine development which require archaeological input. In our more recent consents maritime heritage conditions have increased. When dredging consents were first given heritage was not taken into consideration.

The industries in the marine environment have developed and changed over time but we are required to protect the historical environment with all applications made.

Q: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created and hence requiring capacity for deposition and curation?

Dredging by its nature could bring heritage items to light which were not known about before. So in this case I would say potentially yes!

It is possible that as more offshore wind farms are built, more finds are made, this is difficult to predict.

10.2.3 Environment Agency

Stephen Kemp, Senior Archaeologist

The majority of my work is currently beach recharge and projects sitting at SEA so there is little I can add to the discussion. The schemes coming out of the latter are unlikely to create 'large peaks' as they mainly involve hold the line or coastal re-alignment. I have however asked my archaeological colleagues to comment if they can. As an Agency the majority of our work is undertaken by contractors such as Wessex Archaeology who would understand the archives better than myself.

10.3 Marine Industry Sectors

10.3.1 Marine Aggregates (BMAPA)

Response provided by Mark Russell

Q: What are the main types of project being undertaken below the low water mark that involve archaeological input and assessment?

Development of new marine aggregate licences – in terms of site investigation for new resources (prospecting), development of applications for permissions to dredge (EIA and associated studies) and ongoing management & monitoring of existing permission areas.

Q: What types of archives are being created by these projects (eg paper, photographic, digital (including geophysical survey), object, samples)?

Original geological data (acoustic and ground truth) is hosted by the operators themselves – in most cases this is considered commercially sensitive, and not widely available.

EIA and monitoring reports are provided to regulators and statutory advisors as appropriate, and will increasingly be made publicly available via a web-based portal operated by the regulator.

Reports relating to finds recovered during the dredging process are directly reported to various archives, via the archaeological reporting protocol jointly developed by BMAPA and English Heritage and administered on behalf of BMAPA by Wessex Archaeology.

Q: Are the archives from marine archaeological investigations being deposited in a museum or repository for their long-term care, curation and public access?

Reports relating to finds recovered during the operational production phase will be widely circulated. In some cases, the finds themselves may be provided to museums for public display.

Q: Is the specific requirement for the deposition of marine archaeological archives regularly included as a condition of consent, licence or lease?

The industry voluntarily applies BMAPA/English Heritage reporting protocol to all operations, which ensures that find reports are archived appropriately. Modern permissions will include a clause that formally requires this to be done.

Clauses in the conditions relating to archaeological monitoring reports and data are expected to include a requirement to complete and submit OASIS forms. As old licences get renewed, this can be expected to become a common requirement across all operations in the next 5 years or so.

Q: Have you noticed whether there has been a change in the number and types of archaeological archives produced over the past 5 to 10 years?

As a sector we are producing more reports of find encountered with production operations – largely as a result of greater awareness amongst sea staff and wharf staff. There may also be local increases as a result of new areas being dredged.

Q: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created and hence requiring capacity for deposition and curation?

Not really.

10.3.2 Oil and Gas

Response provided by Mick Borwell, Environmental Issues Manager, Oil & Gas UK

We have had a reasonable response from our member companies and as I suspected there has been little work in terms of archaeological assessment. In fact we have only seen one assessment report undertaken by Wessex Archaeology on behalf of an operator in the east Irish Sea. This is mostly due to the fact that most exploration and production activity is in deeper water and not coastal.

Geophysical surveys are undertaken prior to the placement of rigs and installations and to survey potential routes for pipelines but there is no requirement for the survey data or subsequent analysis to be deposited.

Any feature of interest would be recorded in the Environmental Statement for a project which are public documents.

There are no large schemes proposed in the future that would increase the volumes of archive material from the oil & gas exploration and production sector.

10.3.3 Renewables (BWEA)

BWEA contact: Peter Madigan

Q: What are the main types of project being undertaken below the low water mark that involve archaeological input and assessment?

Mostly wind farm related, although some wave and tidal projects now being developed

Q: What types of archives are being created by these projects (eg paper, photographic, digital (including geophysical survey), object, samples)?

Work is part of EIA process. Geotechnical and geophysical data are newly generated for projects and are studied as part of archaeological assessment. As mitigation is usually avoidance, intrusive excavation is not normally undertaken.

Q: Is the specific requirement for the deposition of marine archaeological archives regularly included as a condition of consent, licence or lease?

The requirement to make data publicly available is now included in the lease from the Crown Estate. This is the case for all Round 2 wind farms, and will be for Round 3. It was not included in Round 1 leases, but many developers have made the data available as a 'good will' gesture.

Conditions on consent would consider archaeological impact, but to best of knowledge, does not include any conditions relating to the resulting data.

Using funding generated from the leases the Crown Estate have established the COWRIE fund. COWRIE are managing the information from all the projects that is submitted by the developers. This includes all raw and processed data.

COWRIE has an environmental/ technical group, archaeology is represented on this by Chris Pater, he would be consulted on matters related to archaeological archives.

Q: Have you noticed whether there has been a change in the number and types of archaeological archives produced over the past 5 to 10 years?

The development of off shore wind farms began in earnest in 2000, with Round Two starting two years later. Since this date, over the last 10 years, there has been a large expansion in the production of data and hence archive.

Q: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created?

The round three wind farms are due to begin in the near future, there are nine designated areas in the offshore zone that will be targeted for this round.

What about wave and tide power? What timescale are they on?

CE have launched a small round for wave and tidal around the Pentland Firth and Orkneys, this is still in competitive tender stage. Early stage of technology at the moment. Tidal stream generation will need to be located where the tidal power is highest, so the areas for these development can be predicted with some certainty. At present wave power developments tend to be closer to the shore, this is partly due to technology and they are expected to move further offshore in the future.

The SEA for wave and tidal generation for England and Wales – it is at the screening stage, it will then enter scoping, prior to the full assessment. This has already been done for Scotland. These documents look at capacity for the development of new projects.

There has also been an offshore wind SEA which is available.

10.4 Seabed Owners

10.4.1 The Crown Estate

Contact: Response provided by Fiona Wynne, in consultation with colleagues

Q: What are the main types of project being undertaken below the low water mark that include archaeological input and assessment for which Crown Estate have an involvement (as seabed owners)?

Any activity that requires MFA consent, for example aggregate dredging, port and harbour maintenance and capital dredging, land reclamation, renewables, cables and pipelines.

As part of the licence TCE requires the grantee to comply with all legal obligations and, furthermore, would expect work to be carried out to industry best practice standards. However, TCE does not specifically regulate the activities and the standards themselves. TCE relies on the Statutory Consultees to recommend the conditions on consent.

Q: Are the archives from marine archaeological investigations being deposited in a museum or repository for their long-term care, curation and public access?

For aggregates TCE have been involved with the establishment of the Protocol for reporting finds of archaeological interest and they liaise with BMAPA on its implementation. Finds are currently reported and assessed through Wessex Archaeology who administer the Protocol. However, it is slightly unclear whether the artefacts reported via the Protocol are currently deposited in public museums or repositories (also see below).

For other commercial seabed activity the main archive generated is in support of Environmental Statements (ES). TCE would expect work being undertaken as part of the ES to be deposited in a public repository although TCE currently does not know whether this is being undertaken.

Q: Is the specific requirement for the deposition of marine archaeological archives regularly included as a condition of consent, lease or licence?

For instance what is the situation with aggregate licences does the granting of these include any cultural heritage within the deposits?

There are few instances where deposition of marine archaeological archives are specifically referred to as a condition.

For aggregates any finds of archaeological interest should be reported through the Protocol. 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.

There is a condition to make data gathered during the round two renewables to be publicly available; this is being achieved through the COWRIE website for digital data. Although for any other types of archaeological archive it is slightly unclear where this should be deposited. Making data available is a condition of the lease agreement and has been stipulated by The Crown Estate. Although currently achieved through COWRIE, going forward this will be taken on by The Crown Estate.

Q: What is the Crown Estates policy in relation to archaeological projects generating object archives for which as seabed owners you have title? Do these archives have to be deposited in public museums?

CE doesn't have specific written policy in this area but would generally refer to best practice.

Although many wrecks do have owners, there are a substantial number which do not either due to their age or because an owner cannot be traced. These sites are then within the ambit of the Receiver of Wreck, not TCE. Where appropriate, for example where TCE has consented to intrusive works around a wreck on its seabed, TCE would encourage finds to be retained for public interest.

Additional Queries: How involved are the CE in the Receiver of Wreck process? There are a substantial number of finds reported via the RoW for which CE would be defacto owners. We are not involved directly with the Receiver of Wreck process; this is undertaken via Wessex Archaeology as part of the Marine Aggregates Archaeology Protocol which we are now funding.

Does the CE ever consider providing a salvage award and securing items of national heritage interest?

This does not fall within our area of responsibility.

Q: Have you noticed whether there has been a change in the number and types of marine development that requires archaeological input and assessment (and hence creating archives) over the past 5 to 10 years?

Yes, as part of ESs and the evolution of regulatory practice. Marine archaeology also has a higher profile and there seem to be more organisations working within the field.

Q: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created and hence requiring capacity for deposition and curation?

Port development – Shellhaven and Felixstow.
Ongoing commercial aggregates extraction and renewables.

Q: The Crown Estate has long been a supporter of archaeological projects through the Marine Communities Fund. Is the deposition of project archives a condition of receipt of funding?

No but, again, we would expect best practice to be observed.

10.4.2 National Trust

Contact: Guy Salkeld, Archaeologist

Information from covering email:

I have received a few responses from the Regional Archaeologists but the small number reflects the fact (which I hadn't realised earlier) that we only own the shoreline down to the foreshore. Only in a very small number of cases do we own small parts of the foreshore or lease it from the Crown. We do own a couple of harbours: Newton Haven in the north east, Newtown in the IoW, and also Strangford Lough in Northern Ireland but i don't think any of them have been subject to archaeological survey or mitigation yet. Although we own over 700 miles of coastline, our problems are mainly concerned with coastal archives such as material eroding from cliffs, although we do have areas of concern about the fate of archives beyond our direct control such as those arising from the prehistoric footprints which emerge at low tide at Formby.

Occasional records and monitoring have been made of a couple of wreck sites in the North East Region, and also a few sites on the foreshore at Dunstanburgh including the medieval jetty and a fish trap. The records will be held on our own SMR and any paperwork will be held at the North East Regional Office. In general we record all our sites on the SMR and this is accessible in summary form via the ADS (which will receive a badly-needed update in the coming months).

In the other Regions involving coastline the issues are mainly to do with coastal change as mentioned above. The 'worst' case is probably in Wessex where we have 15 pieces of washed up ship timbers from Studland beach: these have been reported to the reciever of wreck and are currently stable and stored in water tanks. Wessex have good relations with the Dorset Marine SMR, NAS and the Poole Harbour Heritage Project.

I've attached a completed copy of the Phase Three questions - the Trust is taking coastal change extremely seriously and trying to take a lead in the development of government thinking and policy. In the face of this, the Archaeology Section is looking at the implications of coastal change and I guess that we also need to keep our eye on maritime matters as they may begin to affect us more in the future.

Q: What are the main types of project being undertaken below the low water mark that include archaeological input and assessment for which National Trust have an involvement (as seabed and/ or coastal owners)?

The National Trust only owns shoreline as far as the foreshore. There are a very few instances where we own or lease a small area from the Crown. Although we occasional record and monitor sites in the inter-tidal zone, we do not generally carry out projects below the low water mark.

Q: Are the archives from marine archaeological investigations being deposited in a museum or repository for their long-term care, curation and public access?

The only significant maritime archive we possess is 15 pieces of timber (possibly from the Swash Channel Wreck) which washed up on Studland beach. The material is currently stable and awaiting research funding (in partnership with other organisations) but the final repository is uncertain.

Q: Is the specific requirement for the deposition of marine archaeological archives regularly included as a condition of consent, lease or licence?

Not specifically marine archives, although any situations which arose would be treated under our Archive Policy which is based on the latest (2007) IfA/AAF Guidance.

Q: What is the National Trusts policy in relation to archaeological projects generating object archives for which as seabed owners you have title? Do these archives have to be deposited in public museums?

We have not yet created any archives from the seabed although we own/lease very small areas of it. Our Archive Policy requires that all our archives should be stable and publicly accessible – this is achieved through an emerging Collections Management System and an industry-standard Historic Buildings, Sites & Monuments database. The material archives can be deposited either in public museums or any of the Trust's own 140 or so registered museums. We still have much work to do to make this work in practice through data-sharing across our own functional areas and partner organisations.

Q: Have you noticed whether there has been a change in the number and types of marine development that requires archaeological input and assessment (and hence creating archives) over the past 5 to 10 years?

No

Q: Are there any large projects or schemes which are either on going or expected in the future which are likely to increase the volume of maritime archaeological archives created and hence requiring capacity for deposition and curation?

We are aware of a long-running piece of activity in which a local Formby resident is recording prehistoric footprints as they are revealed at low tide. This recording also includes the creation of casts although we are not aware of the extent of the archive. We understand that steps are in place to link this work with local curatorial and research institutions.

The effects of coastal change may create new areas of maritime significance or interest. The Trust is currently attempting to assess the future impacts of coastal change and the resources required to mitigate them. Our general policy is to let nature take its course, in which case we would be looking at coastal mitigation prior to the archaeological resource becoming marine in nature.

Other Comments

Given the resources required for effective archiving of marine projects, we would be very unlikely to undertake work in this area which was beyond our core purpose.