13 REFERENCES..................................................................................................................37

ANNEX 1: ARCHAEOLOGICAL DESK-BASED ASSESSMENT SPECIFICATION

ANNEX 2: ARCHAEOLOGICAL DESK-BASED ASSESSMENT REPORT

ANNEX 3: HISTORIC ENVIRONMENT ASSESSMENT REPORT

ANNEX 4: HISTORIC ENVIRONMENT WORKSHOP MINUTES
1 VISION, AIMS AND OBJECTIVES

1.1 The Vision
The vision for this and subsequent phases of the Southsea and North Portsea Island Coastal Flood and Erosion Risk Management Schemes is to:

“Ensure the sustainable future of the City of Portsmouth by managing coastal flood and erosion risk.”

1.2 The Aims
We will achieve this vision by:
1. Working together with our partners;
2. Providing cost effective methods for adapting to climate change;
3. Recognising the importance of communities, cultural heritage and the environment;
4. Maximising funding and contributions.

We will use this opportunity to explore and deliver broader benefits to shape the future of Portsmouth

1.3 The Objectives
The objectives of the next phase of the project are to:

- Manage the risk of flooding and coastal erosion to people and their property, now and in the future;
- Develop and prepare an adaptable flood and coastal risk management scheme to provide a safe standard of protection;
- Develop a robust business case to deliver the scheme;
- Obtain the necessary licenses, consents and approvals to deliver and manage the scheme;
- Provide a clear action and implementation plan for scheme delivery.
2 INTRODUCTION

2.1 Background to the Scoping Study

In accordance with Defra and the Environment Agency’s guidance on coastal and flood risk management, the Eastern Solent Coastal Partnership completed a Strategy Appraisal Report (StAR) in 2011. The StAR identifies that the City is at significant risk of flooding with 4,211 residential, 364 commercial and 48 Ministry of Defence (MoD) properties currently at risk from a 0.5% annual exceedance probability of flooding (AEP) due to breaching of the existing coastal defences.

The StAR described the proposals for a 100 year flood and coastal erosion risk management strategy for Portsea Island, Portsmouth, Hampshire. In 2012, the Eastern Solent Coastal Partnership, in collaboration with the Environment Agency, gained formal approval to proceed with the Project Appraisal Report (PAR) development for Cells 1 and 4 of the StAR (Southsea and North Portsea Island respectively).

The coverage of Flood Cells 1 and 4 is shown in Figure 2.1 and can be described as follows:

- Flood Cell 1: Southsea (Portsmouth Harbour Railway Station to the Royal Marine Museum);
- Flood Cell 4: North Portsea Island (The Mountbatten Centre to, and including, Milton Common).

In addition, the eastern part of the southern frontage is included within the study area to inform potential future beach management activities.

2.2 Purpose of the Scoping Study

Due to the importance of reducing flood risk to the City and due to the complexity of developing a robust scheme, that maximises benefits and funding opportunities, the Eastern Solent Coastal Partnership has scoped the work required to deliver the Southsea and North Portsea Island Coastal Flood and Erosion Risk Management Schemes (the Schemes).

This Scoping Stage guides all subsequent work towards the realisation of the Schemes, and is focused toward the next stage; the development of the PARs.

The purpose of the Scoping study is, therefore, to:

- Document the role and requirements of the PAR Stage to inform any future schemes’ technical content and future approval processes such as:
  - PAR for Large Project Review Group (LPRG) approval;
  - Planning Permissions and other approvals for the Schemes by the Local Planning Authority (LPA) and other statutory regulators and/or consultees;
  - Preparation, completion and submission of an Environmental Impact Assessment (EIA) for any Schemes to support any approval processes.
- Understand and identify the suitability and limitations of the existing Portsea Island Coastal Strategy Study (2002-2012) (PICSS);
- Identify the data requirements to support any scheme approval, design and construction process, including the sourcing of existing data and the identification, commissioning and collation of additional data;
- Identify a robust and resilient approach for managing data through the Scoping Stage and future scheme stages;
- Identify an engaging and proactive approach to communication within the project team, Council Members and influential internal and external stakeholders;
- Identify, share, allocate and cost project risks for managing and monitoring throughout the project;
- Generate a Project Implementation Plan;
- Produce a methodology for undertaking the PAR, and summarise this methodology in an Overview and Urgency Report.
2.3 Format of the Scoping Study

The Scoping Study comprises an Overview and Urgency Report and a number of individual assessments, which explore the requirement for delivering the PAR to achieve the necessary consents and funding to deliver an appropriate flood and coastal risk management scheme. These individual assessments are contained in the 14 Technical Reports noted in Figure 2.2 below, with key aspects highlighted further in Technical Report 1: Overview and Urgency.
3.1 Technical Report 12: Objective

There will be a number of historic environment considerations that will have to be taken into account with regard to progressing the Southsea and North Portsea Island Coastal Flood and Erosion Risk Management Schemes. The purpose of this Technical Report will be to provide the Eastern Solent Coastal Partnership with a working document that has:

- Identified and sourced relevant data;
- Reviewed the data and carried out gap analysis;
- Listed and described the relevant historic environment designations;
- Identified potential areas of archaeological and heritage constraints in Flood Cells 1, 2 and 4;
- Identified potential surveys and methods to resolve data gaps, and where possible provide indicative costs;
- Outlined a suggested programme for stakeholder and regulator engagement;
- Provided a programme for the suggested works;
- Identified any risks;
- Described the potential opportunities to add value to the project;
- Provided clear recommendations and actions for any future FCERM schemes.

3.2 Technical Report Format

The report structure follows the logical progression of the bullet points set out in Section 3.1. It makes reference to the Archaeological Desk-Based Assessment and Historic Environment Assessment produced by Wessex Archaeology referenced throughout this report.
4.1 Working in Partnership

This Technical Report has been produced as a partnership between Royal HaskoningDHV and the Eastern Solent Coastal Partnership, with key members of the team presented in Table 4.1.

Table 4.1: Team Members

<table>
<thead>
<tr>
<th>Team member</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Thornton (Author)</td>
<td>Royal HaskoningDHV</td>
</tr>
<tr>
<td>Bret Davies</td>
<td>Eastern Solent Coastal Partnership</td>
</tr>
<tr>
<td>Gavin Holder</td>
<td>Eastern Solent Coastal Partnership</td>
</tr>
</tbody>
</table>

In addition to the above team members, Royal HaskoningDHV commissioned Wessex Archaeology on behalf of the Eastern Solent Coastal Partnership to undertake an Archaeological Desk-Based Assessment and Historic Environment Assessment study. Wider stakeholder contribution has also been provided by English Heritage, the Environment Agency, Hampshire County Council, Portsmouth City Council, and Southampton City Council, facilitated by attendance at a workshop and review of the draft Archaeological Desk-Based Assessment and Historic Environment Assessment.

4.2 Links to the Wider Scoping Stage

As part of the suite of technical reports produced as part of this Scoping Stage, the data collated and produced and the findings from this Technical Report will contribute to the wider outputs from the Scoping Stage and will enable opportunities to explore time and cost savings during the progress of the Schemes, and even contribute to broader outcomes such as linking with other council initiatives.

The Scoping Stage Technical Reports that will therefore directly draw on the findings presented in this Archaeology, Heritage and Monuments Technical Report are presented in Table 4.2.

Table 4.2: Wider Technical Reports with Direct Links to this Technical Report

<table>
<thead>
<tr>
<th>Report Number</th>
<th>Technical Report Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Surveys</td>
</tr>
<tr>
<td>8</td>
<td>Data Management</td>
</tr>
<tr>
<td>9</td>
<td>Risk and Programme Management</td>
</tr>
<tr>
<td>10</td>
<td>Communications Plan</td>
</tr>
<tr>
<td>11</td>
<td>Environmental</td>
</tr>
<tr>
<td>13</td>
<td>Landscape Character Report</td>
</tr>
</tbody>
</table>
4.3 Approach to this Technical Report

This Technical Report is developed around the core documents provided as appendices, which contain the detailed archaeological desk-study findings carried out for this Scoping Stage.

It was determined early on in the project proposal that carrying out an archaeological desk-based assessment was a fundamental and standard approach to providing information on the archaeology, cultural heritage and monuments within a given study area. Consequently, Wessex Archaeology were commissioned to carry out an archaeological desk-based assessment which would guide all subsequent work in relation to archaeology, cultural heritage and monuments that would be required to deliver the Southsea and North Portsea Island Coastal Flood and Erosion Risk Management Schemes. Annex 1 presents the specification for the Archaeological Desk-based Assessment.

Following a project start-up meeting with Wessex Archaeology and the project team (see Table 4.1), it was identified and agreed that given the large scale of the study area and given the future requirements for stakeholder and public consultation, the archaeological desk-based assessment would be provided in two parts. The following identifies the distinctions between the two key reports produced that support this document:

- Archaeological Desk-based Assessment Report (Annex 2): summarises the background of the project, presents the methodology and the overview of the historic environment resource; and
- Historic Environment Assessment Report (Annex 3): presents the historic environment resource, knowledge gaps, constraints and risks of flood and coastal risk management options, and highlights opportunities for additional work; developed into a structure and format to support stakeholder and public consultation.

The Archaeological Desk-based Assessment Report encompasses the study area (Flood Cells 1, 2 and 4) as a whole, bringing all the information together, whilst the Historic Environment Assessment Report is divided into the sub-cells which align with those used in Technical Report 13: Landscape and Character to identify issues, constraints, and opportunities in order to provide ease of comparison and comprehension across these Technical Reports.

The recorded historic environment resource within a 1km buffer around the Flood Cells was considered within the Archaeological Desk-based Assessment in order to provide a context for the discussion and interpretation of the known and potential resource within the study area (see Figure 1, in Annex 2).
5 REVIEW OF EXISTING DATA

5.1 Existing Data

The data sources collected, collated and examined are presented in Section 2.3 and Section 6 of the Archaeological Desk-Based Assessment Report produced by Wessex Archaeology (see Annex 2).

The data presented in Table 5.1 was obtained for this Technical Report, some of which was already held by Wessex Archaeology, but all of these are publicly accessible. In addition, a wide variety of publications were examined in order to inform the Archaeological Desk-based Assessment Report and the Historic Environment Assessment Report, and these sources are identified in Annex 2. All of the geo-referenced data collected for this study is identified on maps and listed in the tables within Annex 2 and Annex 3. In addition, the GIS dataset has been provided to the project team. All those relevant datasets were collected and examined, and the data available to this project comprises all key data relevant to and suitable for consideration of the issues, constraints and opportunities in relation to the Schemes.

Table 5.1: Data Request at Scoping Stage and Availability

<table>
<thead>
<tr>
<th>Data</th>
<th>Source</th>
<th>Future availability and other comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hampshire Archaeology and Historic Building Record (HAHBR)</td>
<td>Hampshire County Council</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
<tr>
<td>Portsmouth City Sites and Monuments Record (PCSMR)</td>
<td>Portsmouth City Council</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
<tr>
<td>South East Rapid Coastal Zone Assessment Survey (SE RCZAS)</td>
<td>English Heritage</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
<tr>
<td>National Monument Record (NMR)</td>
<td>English Heritage</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
<tr>
<td>National Heritage List</td>
<td>English Heritage</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
<tr>
<td>Wreck Information Database</td>
<td>United Kingdom Hydrographic Office</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
<tr>
<td>Receiver of Wreck (RoW) records</td>
<td>Receiver of Wreck</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
<tr>
<td>Conservation Areas</td>
<td>Portsmouth City Council</td>
<td>Publicly accessible and no licence limitations</td>
</tr>
</tbody>
</table>

5.2 Gap Analysis

The information gaps that are relevant to the historic environment are presented in the Historic Environment Assessment produced by Wessex Archaeology (see Annex 3). The gaps are identified for each historic landscape character zone within the Flood Cells.

All readily available data sources were obtained, with the exception of archive data that would require detailed research. However, depending on the developing options for particular locations and their relevant historic
landscape character zone, specific research or, more likely, additional non-intrusive and intrusive surveys would be required for determination and implementation in the following stage. Knowledge gaps were identified on a zone by zone basis in the Historic Environment Assessment Report produced by Wessex Archaeology (see Annex 3); the collated gaps are presented in Table 5.2. The recommendations to complete or fill any data gaps are also summarised in Section 5.2 of the Archaeological Desk-Based Assessment produced by Wessex Archaeology (see Annex 2) and are presented in Section 12.

**Table 5.2: Gap Analysis Based on Zones (see Annex 3)**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Name</th>
<th>Knowledge Gaps</th>
</tr>
</thead>
</table>
| 1A   | Portsmouth Harbour entrance | • The extent of archaeologically useful geophysical and geotechnical survey coverage is currently unknown.  
• Relevant data may exist in a form that is not currently or incompletely recorded, for example salvage and clearance records.  
• Social, anecdotal history relating to the Portsmouth Harbour entrance does not seem to have been sufficiently collected. |
| 1B   | Open water | • The number of recorded losses suggests that the potential for a considerable number of unknown sites exists.  
• The location of at least one important historic maritime wreck site that is thought to exist is currently unknown.  
• Archaeologically useful geophysical survey coverage appears to be incomplete.  
• Individual wrecks, obstructions and geophysical anomalies within the zone appear to have been subject to limited archaeological investigation.  
• There is very little information concerning the condition of known sites and the environmental and human factors impacting them.  
• Relevant data may exist in a form that is not currently or incompletely recorded, for example recreational diver and fishing industry generated data.  
• Anecdotal social history associated with the maritime history of Portsmouth appears to have been insufficiently collated. |
<p>| 1C   | Gunwharf Quays | • Little information about the pre-reclamation development of the area, including the location of King’s Richard’s dock and the potential presence/state of preservation of archaeological remains of that date. |</p>
<table>
<thead>
<tr>
<th>Zone</th>
<th>Name</th>
<th>Knowledge Gaps</th>
</tr>
</thead>
</table>
| 1D   | Old Portsmouth | • Little information about the early medieval pre-borough settlement, which would have been located near the Cathedral and the Camber area.  
• Unknown location of royal residence established after the charter was granted, and medieval chapel of St Mary.  
• Later medieval development of the borough, including property sizes and street layout. |
| 1E   | Coastal Fortifications | • The development of the town defences prior to their reconstruction in the 17th century, especially the structural elements to the timber defence walls. |
| 1F   | Southsea Seafront | • Little archaeological and palaeo-environmental data regarding the early prehistoric development of the area. |
| 1G   | Southsea Castle | • Limited data about the pre-Tudor development of the area. |
| 1H   | East Southsea built-up area | • There is little information about the pre-19th century development of the area.  
• Limited data about the exploitation of this area, especially about the early prehistoric landscape and activity and the origins of the Great Morass. |
| 1I   | Eastney Forts | • Limited data about the Romano-British activity within the area.  
• Limited information about the Napoleonic origins of the fort. |
| 2A   | Langstone Harbour entrance | • The number of recorded losses suggests that the potential for a considerable number of unknown sites exists.  
• The location of at least one important historic maritime wreck site that is thought to exist is unknown.  
• Archaeologically useful geophysical survey coverage appears to be incomplete.  
• Individual wrecks, obstructions and geophysical anomalies within the zone appear to have been subject to limited archaeological investigation.  
• There is very little information concerning the condition of known sites and the environmental and human factors impacting them.  
• Relevant data may exist in a form that is not currently or incompletely recorded, for example recreational diver and fishing industry generated data. |
| 2B   | Eastney Shingle Beach | • Little archaeological and palaeo-environmental data regarding the prehistoric development of the area.  
• Lack of information about later prehistoric and/or Romano-British activity in the area. |
<p>| 2C   | Beachside development | • Little archaeological data regarding the development of the area, especially during the prehistoric period. |
| 2D   | Fort Cumberland | • Little archaeological data is known regarding the prehistoric and Romano-British development of Portsea Island. |
| 2E   | Langstone Spit | • Little archaeological data regarding the prehistoric and Romano-British development of Portsea Island. |</p>
<table>
<thead>
<tr>
<th>Zone</th>
<th>Name</th>
<th>Knowledge Gaps</th>
</tr>
</thead>
</table>
| 4A   | Tipner Lake               | • In comparison with Langstone Harbour, there is limited archaeological and palaeo-environmental evidence, likely due to insufficient archaeological research undertaken. This includes the landscape development, the Neolithic exploitation, the origins and development of salt industry, the use of the harbour in the Romano-British and later periods including post-medieval flood management features.  
  • Due to scattered information regarding the wrecks, the extent and character of the resource is not properly understood. |
| 4B   | Langstone Harbour        | • The overall development of Langstone Harbour landscape is well recognised, but the archaeological evidence is limited within this zone, due to insufficient archaeological research undertaken. This includes the Mesolithic exploitation of riverine resources, Bronze Age urnfield cemetery, salt industry from the Iron Age to the medieval period, accurate dating of the fishing timber structures and flood management structures.  
  • Insufficient palaeo-environmental data to provide a stronger environmental picture, which could be linked chronologically to the existing archaeological evidence.  
  • Due to scattered information regarding the wrecks, the extent of the resource is not properly understood. |
| 4C   | Milton Common             | • Limited archaeological investigations relating to the prehistoric development of Milton Common area.                                                                                                         |
| 4D   | Langstone Harbourside     | • Although the development of Langstone Harbour landscape is well recognised, a number of areas, including the eastern coast of Portsea Island, are not well understood due to limited archaeological investigations undertaken to date. Specifically, the exploitation of the area by Mesolithic seasonal hunting groups and later exploitation of the harbour, including the origins of the salt production. |
| 4E   | Hilsea Lines              | • Due to the early military development of Hilsea Lines, there has been very little scope previously for archaeological investigations in this area.  
  • The development of the Tudor and Georgian defences prior to their modernisation in the mid-19th century. |
| 4F   | Alexandra Park           | • Lack of archaeological investigations relating to the pre-reclamation landscape development and exploitation of Alexandra Park area.  
  • Exact location of the Second World War rocket projector battery Solent A at Alexandra Park. |
| 4G   | Hilsea built-up areas     | • Limited data about the prehistoric and later development of the area, including limited information about the origins of Hilsea due to lack of archaeological investigations prior to the 20th century urbanisation of the northern part of Portsea Island. |
However, it should be noted that given the nature and shortcomings of the ‘archaeological record’, there is a potential for site specific archaeology, wrecks and features to be preserved in buried environments, or that they may not have yet been discovered and recorded (for example wrecks). Consequently, although we have a clear understanding of the designated and known archaeological sites, cultural heritage and monuments, the unknown resource can only be identified or ruled out through specific site surveys.

5.2.1 Research

Further research into more obscure publications and cartographic sources, as well as documentary research in local archives or through community engagement could provide resolution to additional data gaps. However, such an approach could be labour and time intensive and may not necessarily significantly increase our understanding of the nature of buried or unknown archaeological resources.

One secondary data source that should be considered when the study area for proposed options is identified is the excavation reports held by Portsmouth Museum and the Hampshire Field Club. Whilst these are recorded in the HER databases obtained for this study (PCSMR and HAHBR), site specific information may be gained if these records are present in the study area narrowed down in the subsequent stage to this Scoping Stage.
6.1 Archaeology, Heritage and Monuments Designations

The archaeological, heritage and monuments designations within the study area are presented in Section 4.2 of the Archaeological Desk-Based Assessment produced by Wessex Archaeology (see Annex 2), and identified for each historic landscape character zone in the Historic Environment Assessment produced by Wessex Archaeology (see Annex 3), but are also summarised below.

6.1.1 Scheduled Monuments

There are nine Scheduled Monuments within the Flood Cells. They are presented in Table 6.1, which also indicates if they lie within the PICSS flood extent (flood risk) and within an area under the risk of erosion (No Active Intervention (NAI) scenario from SMP2). Many of these are located along or close to the existing flood and coastal erosion risk management measures, and in some cases form part of the existing flood and coastal defences (see Figure 2 in Annex 2).

Table 6.1: Scheduled Monuments within the Study Area, the Flood Risk Area and the Erosion Risk Area

<table>
<thead>
<tr>
<th>Scheduled Monument</th>
<th>HEC Zone</th>
<th>Flood Risk</th>
<th>Erosion Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former Board of Ordnance Gunwharf, HMS Vernon</td>
<td>1C</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Portsmouth Garrison Church</td>
<td>1D</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Point Battery including King Edward’s Tower and Square Tower</td>
<td>1E</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Long Curtain, King’s Bastion and Spur Redoubt</td>
<td>1E</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Southsea Castle</td>
<td>1G</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Eastney forts and perimeter defences of barracks</td>
<td>1I</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Fort Cumberland</td>
<td>2D</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Hilsea Lines</td>
<td>4E</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pickett Hamilton fort, Hilsea</td>
<td>4G</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Eastney Sewage Pumping Station</td>
<td>Outside</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

6.1.2 Listed Buildings

There are 401 Listed Buildings within the Study Area, of which 118 are located within the PICSS flood extent and 27 are located within areas under the risk of erosion (NAI scenario). Some of these are located along or close to the existing flood and coastal erosion risk management measures, and in some cases form part of the existing flood and coastal defences (see Figure 2 in Annex 2).
6.1.3 Conservation Areas

There are 25 Conservation Areas designated within Portsmouth City Council. Of these, 12 are located within the PICSS flood extent and eight are under the risk of erosion (NAI scenario), see Figure 2 in Annex 2. Conservation Areas cover much of the existing flood and coastal erosion risk management measures and their surroundings within Flood Cell 1. However, no Conservation Areas are located near to the existing flood and coastal erosion risk management measures in Flood Cell 4.

6.1.4 Registered Parks and Gardens

A single Grade II Park and Garden is situated within the PICSS flood extent – Southsea Common within Flood Cell 1. The site lies behind the existing flood and coastal erosion risk management measures.

6.1.5 Protected Wreck Sites

There are no protected wrecks within the study area.
7 ARCHAEOLOGY, HERITAGE AND MONUMENTS

The archaeological, heritage and monuments constraints are summarised in Section 5.2 and listed in Appendix 1 of the Archaeological Desk-Based Assessment produced by Wessex Archaeology (see Annex 2), and identified within each historic landscape character zone in the Historic Environment Assessment produced by Wessex Archaeology (see Annex 3).

7.1 Summary of Identified Constraints

Of the designated archaeological, cultural heritage and monuments within the study area as identified and briefly described in Section 6 above (and detailed by zone in the Historic Environment Assessment produced by Wessex Archaeology (see Annex 3), the following text identifies the key constraints that would arise with respect to future flood and coastal risk management schemes:

- Physical disturbance – construction work such as excavation has the potential to result in the damage or disturbance to designated sites and monuments or elements and features of those sites and monuments. The sites and monuments listed in Section 6 are considered nationally important, though Conservation Areas may, separately from the Listed Buildings within them, be considered regionally important. Consequently, any physical disturbance would need to be robustly justified, and to a degree be justified on an equally important (national or regional) basis;

- Indirect disturbance – buried features and deposits associated with Scheduled Monuments which may be preserved due to the existing hydrogeological environment (e.g. anaerobic) could be indirectly affected by any alterations to groundwater or drainage which could result in a change to the chemical environment (e.g. change from saline to freshwater) or drying out. Therefore any changes to groundwater and hydrology would need to be considered in relation to Scheduled Monuments;

- Visual disturbance – the setting of designated sites and monuments can be as important to the value, character and distinctiveness of the designated site or monument. Therefore, changes to the appearance of designated sites or appearance and character adjacent to these sites and monuments must also be fully justified. It is expected that any changes to the visual setting of these designated sites and monuments would need to be sensitively designed and appropriate (in terms of scale, nature, form and function) in order to prevent or minimise the potential for significant adverse impacts on them.

Any impact on the nature or setting of Scheduled Monuments would require Scheduled Monument Consent, whilst Listed Building Consent
will be required for any alteration to the structure, fabric or visual setting of Listed Buildings. Any planning application would also need to provide appropriate assessment of and justification for any impacts to the physical structure or physical setting of the designated archaeological sites and monuments.

7.2 Summary of Unidentified and Non-designated Constraints

The limited archaeological investigations undertaken within the study area to date, especially in the south-eastern, eastern and northern parts of Portsea Island, do not allow a full understanding of human activity on the island during the prehistoric, Romano-British and early medieval periods. However, the presence of findspots from Lower Palaeolithic and Mesolithic periods onwards and the location of known sites in the wider landscape (Hayling Island, Portchester) indicate that there is potential for further finds and sites. In addition, there are large numbers of undesignated archaeological sites, finds and features particularly in Flood Cell 4, which though not protected through designation are considered a material consideration for any planning application.

Given that archaeological sites, cultural heritage and monuments are a finite and non-renewable resource, the presence of any archaeological site would require appropriate mitigation (e.g. preservation by record) in the event that disturbance is necessary for any proposed flood and coastal erosion risk management schemes.

Furthermore, given the potential for archaeological sites, finds, features and wrecks, any proposed Scheme would need to confirm their presence or absence, and where present identify their value and again, provide appropriate mitigation relevant to the importance of the sites, find, feature or wreck starting with avoidance wherever possible, up to preservation by record.
The archaeological, heritage and monuments opportunities are summarised in Section 5.2 of the Archaeological Desk-Based Assessment produced by Wessex Archaeology (see Annex 2) and are described below. The opportunities within each historic landscape character zone are presented in the Historic Environment Assessment produced by Wessex Archaeology (see Annex 3) and summarised in Table 8.1.

Section 5.2.5 of the Archaeological Desk-Based Assessment produced by Wessex Archaeology (see Annex 2) states that:

“Based upon our knowledge of known archaeological remains in the surrounding area of Hayling Island, Portchester and Chichester harbour it is considered that terrestrial archaeological investigations could increase our understanding of the archaeological resource in areas not disturbed by quarrying and modern development, especially relating to:

- The human activity on Portsea Island during the prehistoric and Romano-British periods;
- the historic development of Portsmouth, from the medieval period onwards; and
- the early phases of the extant military fortifications (pre-17th century town defences, pre-16th century Southsea Castle, origins of the Eastney complex or early fortifications of Hilsea)."

Archaeological investigations including boreholes, trial trenches, and geophysical survey if required as part of any requirement to fulfil the requirements of the planning requirements (the preparation of an EIA in relation to archaeology, cultural heritage and monuments) for a proposed flood and coastal erosion risk management scheme could improve our understanding of prehistoric landscapes, the exploitation of coastal resources and coastal changes, the historic maritime activity and resource, and the understanding and appreciation of the post-medieval and WWI and WWII defences and activity within the Study Area.

Furthermore, work required to develop and gain approval for any proposed Scheme would provide an opportunity to improve the public’s appreciation of the historic environment resource (and indirectly provide potential socio-economic benefit in relation to increased or enhanced tourism opportunities or improved community surroundings) within the Study Area, through:

- Development of interpretation centre linked to community and visitor facilities;
- Improvement of existing, or provision of, on-site interpretation (including areas of historic core of Portsmouth, Langstone Harbour’s salt industry);
● Improvement of the public appreciation of the complex history of Portsmouth, including its links to Lord Nelson and the Battle of Trafalgar and the sinking of the Mary Rose through public involvement in heritage related activities;

● Better management of the links between designated heritage assets, such as Southsea Castle and the maritime history of Portsmouth;

● Improved interpretation of historic places, for example the Victorian Southsea; and

● Positive management works on the condition and stability of designated assets.

Table 8.1: Opportunities Specific to each Zones (see Annex 3)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Name</th>
<th>Opportunity</th>
</tr>
</thead>
</table>
| 1A   | Portsmouth Harbour entrance | • Existing geophysical and geotechnical data could be scoped for its archaeological relevance.  
• Sub-bottom geophysical survey and geotechnical investigations may further illuminate the potential for palaeo-environmental evidence.  
• An opportunity to collate deposit models obtained from geotechnical investigations within the marine, intertidal and terrestrial environments in order to obtain a full picture of the landscape development in the Portsmouth area.  
• Access to salvage and clearance records may add to knowledge of wrecks and obstructions within the zone.  
• Documentary research in local archives may increase the number of recorded losses within the zone, particularly in respect of small inshore and harbour vessel losses.  
• Community engagement may be a viable cost-effective means of acquiring data not currently held in traditional heritage archives, including wreck and obstruction data and social history information |
<table>
<thead>
<tr>
<th>Zone Name</th>
<th>Opportunity</th>
</tr>
</thead>
</table>
| **1B** Open water | • Archaeologically-specified area geophysical survey and geotechnical investigations may enable existing knowledge gaps to be filled. The scoping of existing survey data acquired for non-archaeological purposes should be undertaken in advance.  
• Sub-bottom geophysical survey and geotechnical investigations may further illuminate the potential for palaeo-environmental evidence.  
• An opportunity to collate deposit models obtained from geotechnical investigations within the marine, intertidal and terrestrial environments in order to obtain a full picture of the landscape development in the Portsmouth area.  
• Documentary research in local archives may increase the number of recorded losses within the zone, particularly in respect of small inshore vessel losses.  
• Community engagement may be a viable cost-effective means of acquiring data not currently held in traditional heritage archives and of locating and recording both known and unknown wreck sites. |
| **1C** Gunwharf Quays | • Enhancement of existing historical and archaeological interpretation of the site.  
• Development of interpretation centre linked to community and visitor facilities.  
• Potential to develop linked heritage walks with other Historic Environment Character Zones. |
| **1D** Old Portsmouth | • A possibility to enhance the knowledge about the historic development of Portsmouth through a programme of archaeological investigations in areas selected for the set back new flood defence walls.  
• An assessment of probable impact that the potential change in water table might have on the preservation of buried resource.  
• An opportunity to enhance the on-site interpretation of the historic core of Portsmouth, especially of areas and sites (the Cathedral, Garrison Church) of medieval origin. |
| **1E** Coastal Fortifications | • A possibility to fully assess the pre-17th century development of town defences through a programme of historical and cartographic research and archaeological investigations.  
• An opportunity to enhance the public appreciation of the complex history of the place, including its links to Lord Nelson and the Battle of Trafalgar through public involvement in heritage related activities. |
<table>
<thead>
<tr>
<th>Zone</th>
<th>Name</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1F</td>
<td>Southsea Seafront</td>
<td>• Potential to enhance, conserve and maintain Victorian street furniture and structures such as South Parade Pier.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• An opportunity to improve the appreciation of the Victorian history of the place, by providing better links/trails between original features.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• A possibility to enhance the knowledge about the palaeo-environmental development and early prehistoric human activity within the southern part of Portsea Island through a programme of archaeological investigations and geo-archaeological sampling.</td>
</tr>
<tr>
<td>1G</td>
<td>Southsea Castle</td>
<td>• A possibility to extend the knowledge about pre-16th century development of Southsea Castle area through a programme of archaeological/historical research.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• An opportunity to enhance the links between the castle and the maritime history of Portsmouth by emphasising its connection to the Mary Rose.</td>
</tr>
<tr>
<td>1H</td>
<td>East Southsea built-up area</td>
<td>• A possibility to reconnect the Victorian suburban and sea resort development, now mainly a residential area, with the seafront.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• An opportunity to enhance the knowledge about the early prehistoric development of the landscape through a programme of geo-archaeological sampling.</td>
</tr>
<tr>
<td>1I</td>
<td>Eastney Forts</td>
<td>• A possibility to improve the understanding of Romano-British development of Portsea island through a programme of archaeological investigations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• An opportunity to extend the knowledge about the pre-1860s origins of the Eastney military complex.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flood defences to maintain the survival of the designated heritage assets.</td>
</tr>
<tr>
<td>2A</td>
<td>Langstone Harbour entrance</td>
<td>• Sub-bottom geophysical survey and geotechnical investigations may further illuminate the potential for palaeo-environmental evidence.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• An opportunity to collate deposit models obtained from geotechnical investigations within the marine, intertidal and terrestrial environments in order to obtain a full picture of the landscape development in the Portsmouth area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Documentary research in local archives may increase the number of recorded losses within the zone, particularly in respect of small inshore vessel losses.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Community engagement may be a viable cost-effective means of acquiring data not currently held in traditional heritage archives.</td>
</tr>
<tr>
<td>Zone</td>
<td>Name</td>
<td>Opportunity</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 2B   | Eastney Shingle Beach         | • An opportunity to improve the appreciation of the Second World War features preserved and their relationship to the history of Portsmouth’s coastal fortifications by providing on site interpretation and maintenance.  
• A possibility to increase the knowledge about the landscape development and early prehistoric human activity within the southern part of Portsea Island through a programme of geo-archaeological sampling. |
| 2C   | Beachside development         | • A possibility to increase the knowledge about the archaeology of Eastney, especially during the prehistoric period, through a programme of archaeological investigations. Potential examination would be limited to areas not disturbed by quarrying and military structures. |
| 2D   | Fort Cumberland               | • Potential to increase our knowledge of the early development of this area of Portsea Island through archaeological investigations.  
• Flood defences to provide ongoing survival of designated heritage assets. |
| 2E   | Langstone Spit                | • An improvement of the appreciation of the Second World War anti-tank features by providing on site interpretation and maintenance.  
• A limited possibility to increase archaeological knowledge due to former quarrying recorded within the zone and former impacts. |
| 4A   | Tipner Lake                   | • An opportunity to increase the understanding of the landscape development and human exploitation of the area through a programme of geo-archaeological sampling and palaeo-environmental analysis.  
• A possibility to improve the knowledge about the human activity within Tipner Lake from the Mesolithic period onwards through a programme of surveillance and artefact collection and fieldwork.  
• Extended wreck research to provide adequate data regarding the type and quantity of vessels used for the harbour exploitation in the post-medieval and modern periods. |
<table>
<thead>
<tr>
<th>Zone</th>
<th>Name</th>
<th>Opportunity</th>
</tr>
</thead>
</table>
| 4B   | Langstone Harbour     | • An opportunity to increase the understanding of the landscape development of the Harbour through a programme of geo-archaeological sampling and palaeo-environmental analysis.  
• A possibility to improve the knowledge about the human activity within Langstone Harbour from the Mesolithic period onwards through a programme of geo-archaeological sampling, surveillance and artefact collection and fieldwork.  
• A possibility to improve public’s knowledge about the harbour’s history, including salt industry, by on site interpretation, exhibitions or talks. |
| 4C   | Milton Common         | • Potential to increase knowledge about the pre-reclamation landscape development and prehistoric human activity within the eastern part of Portsea Island through a programme of archaeological investigations and geo-archaeological sampling.  
• A possibility to improve public’s appreciation of the Second World War activities in the area through on-site information boards. |
| 4D   | Langstone Harbourside | • Increase the knowledge about the landscape development and prehistoric human activity within the eastern part of Portsea Island through a programme of geo-archaeological sampling.  
• A possibility to improve public’s knowledge about the salt industry by on-site interpretation. |
| 4E   | Hilsea Lines          | • Potential to assess the early military fortifications of northern Portsea through cartographic research and archaeological investigations.  
• Positive monument management of Hilsea Lines.  
• Flood defences to protect and maintain designated heritage assets. |
| 4F   | Alexandra Park        | • An enhancement of the knowledge about the pre-reclamation landscape development and its exploitation within the north-western part of Portsea Island through a programme of geo-archaeological sampling.  
• An opportunity to provide a full understanding of the Second World War activities in the area by an attempt to locate the recorded rocket projector battery, which could be achieved by a programme of non-intrusive archaeological works, such as a geophysical survey. |
| 4G   | Hilsea built-up areas | • An opportunity to increase the knowledge about the archaeology and history of Hilsea through a programme of historic research and archaeological investigations in areas previously undisturbed.  
• To improve public’s appreciation of the Second World War Pickett Hamilton Fort through maintenance and on site interpretation. |
9 ARCHAEOLOGY, HERITAGE AND MONUMENTS

9.1 Survey Requirements

As identified in Section 5 above, the identification and implementation of surveys to inform the archaeology, heritage and monuments baseline cannot be undertaken at this stage due to the limited site specific detail of intended flood and coastal erosion risk management options and works.

As Scheme options begin to be developed, the requirements for surveys can then be developed in consultation with the statutory consultees (i.e. the Local Planning Authority and English Heritage). The types of survey are identified and described in Sections 9.1.1 and 9.1.2 below, and these are subsequently linked to recommendations 1, 3, and 5 in Section 12.2. However, an awareness of timescale and duration must be raised in order that such surveys do not prolong any scheme development timescale. These are identified in relation to the different types of survey.

Overall, the survey requirements would be developed based on the knowledge gaps identified in Table 5.2 and summarised in Section 5.2 of the Archaeological Desk-Based Assessment produced by Wessex Archaeology (see Annex 2), and detailed for each historic landscape character zone in the Historic Environment Assessment produced by Wessex Archaeology (see Annex 3).

The key knowledge gaps that will influence survey requirements are:

- On land, a fundamental gap in data regarding the historic environment arises from the limited archaeological investigations carried out in the study area, and as a result of development over the last several hundred years which has built over and to some extent disturbed earlier evidence of human settlement and activity. Consequently, there is information regarding earlier periods notably the prehistoric, Romano-British and early medieval periods;

- In the marine environment, the very nature of the seabed and evidence of human activity is ‘invisible’, with information limited to finds or reported wrecks and wreckage, consequently, a wide variety of sites, wrecks, features and finds could be present over which no information is held in existing records.

It should be noted that there is a potential for combining surveys that would be undertaken for other environmental or engineering requirements and this is further discussed in Technical Report 6: Surveys. A typical example is geophysical surveys and other intrusive surveys which can be combined with other survey requirements that may be undertaken, such as:

- Geotechnical investigations required would also further the archaeological knowledge, and it is recommended that specifications and requirements for geotechnical investigations incorporate archaeological considerations and actions;
- Geophysical surveys carried out for other reasons (UXO, geotechnical, ecological) could all be combined with archaeologically targeted geophysical surveys.

9.2 Non-intrusive Surveys

Non-intrusive geophysical surveys could be undertaken at specified locations to gain more detailed understanding of potential for wreckage, palaeo-environmental features, and buried structures. Geophysical surveys are expensive and require further intrusive surveys to ground-truth (confirm what the survey results show) them, such as trial trenching, borehole, and diver or Remotely Operated Vehicle (ROV) surveys. Given the expense of such surveys as mentioned above it is recommended that specific survey requirements are identified during the development of the flood and coastal erosion risk management options, and as noted above, geophysical survey and other intrusive surveys can be combined with other work that may be undertaken. This would minimise the expense and focus specific efforts more appropriately.

Depending on the nature and scale of non-intrusive surveys (such as geophysical), these would require approximately two months to develop the methodology and commission appropriate contractors to carry them out. Following that period, it could take several weeks for contractors to mobilise and undertake the survey, followed by up to four weeks for reporting. There is also the potential for weather interruptions and seasonal considerations which could also affect duration and programme. Furthermore, if features are identified, there may be a requirement to carry out ground-truthing (e.g. diver or ROV survey) to ascertain the nature of any features (i.e. to identify whether they are of archaeological importance), which in itself could take a similar time period. Overall therefore, such surveys could take between four to eight months from inception to completion, particularly if subsequent ground-truthing is necessary.

9.2.1 Intrusive Surveys

Intrusive surveys could be undertaken at specified locations to gain detailed understanding of palaeo-environmental features or unknown (buried archaeology) or provide information on construction methods and materials and greater understanding of existing archaeological sites and monuments. These types of survey can be expensive or result in disruption to human and other environmental activities and features. Consequently, it is recommended that specific intrusive survey requirements are identified when the likely development footprint of the flood and coastal erosion risk management options is identified. This would minimise the expense and disruption and focus specific efforts more appropriately.
Depending on the nature and scale of intrusive surveys (such as trial trenching, boreholes, and diver/ROV survey), these would require approximately two months to develop the methodology and commission appropriate contractors to carry them out. Following that period, it could take several weeks for contractors to mobilise and undertake the survey, followed by up to four weeks for reporting. Overall therefore, such surveys could take around four months from inception to completion, again with the potential for weather interruptions and seasonal considerations which could also affect duration and programme.

9.3 Survey Estimates and Influencing Factors

Table 9.1 presents estimates of the range of terrestrial and marine surveys described above. These estimates would be affected by scheme and option parameters, locations, spatial extents, and nature of the specific survey areas.

**Table 9.1: Survey Cost Estimates and Influencing Factors**

<table>
<thead>
<tr>
<th>Description</th>
<th>Estimate (£)</th>
<th>Reason – duration – and estimate caveats</th>
</tr>
</thead>
</table>
| Marine geophysical survey | £25,000      | These would be required in the event that any subtidal disturbance is expected to result from a scheme, be it from direct footprint disturbance (during construction) or indirect disturbance (erosion induced as a result of structures presence) during the operational phase. Survey would take between 1 to 3 weeks depending on survey area. However, 4 weeks would be needed for post-survey processing, and up to 3 months mobilisation time (weather and equipment availability).

This is an averaged cost based on similar surveys, though such costs change year on year, depend on availability of equipment, are also dependent on the type of equipment used (very detailed high resolution equipment can double the price), and also the survey extent can also significantly affect price (as well as weather delays). For a small survey area (e.g. a couple of hectares) high mobilisation costs mean that the actual price would still be quite significant (£10,000 to £15,000). Costs would also be affected by the availability and cost of vessel hire (often client provide a vessel – e.g. port authorities have pilot boats or survey boats) but if not provided the hire of a suitable vessel could again double the cost. Maximum cost estimated at £75,000. |
<table>
<thead>
<tr>
<th>Description</th>
<th>Estimate £</th>
<th>Reason – duration – and estimate caveats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine diver survey</td>
<td>£10,000 (excluding vessel hire)</td>
<td>Following geophysical survey any anomalies would be targeted which would need diver ground-truthing (though could use ROV as alternative but this is dependent on site and conditions). Diverse would examine the anomalies and confirm whether they are of archaeological significance or not. Between 1 to 2 weeks depending on the number of anomalies that require survey. Organising vessel could delay duration as well as adverse weather conditions. A small area with limited anomalies would be less, though as with geophysical survey, vessel hire and weather delays could increase costs.</td>
</tr>
<tr>
<td>Marine boreholes</td>
<td>£20,000 (excluding vessel and rig)</td>
<td>If marine sediment disturbance is likely to be significant, an understanding of the sediments and their archaeological significance is required. This survey (more sampling) can be undertaken at the same time as geophysical surveys therefore we have not included cost for the borehole rig and vessel. Archaeologists would examine all the cores taken and identify potentially important stratigraphy, and would take samples which would be analysed for plant and animals to inform environments at given depths of core, and also carry out radio-carbon dating to date layers in the core. Examination, sampling, and analysis (and reporting) can take up to 2 months, on top of the duration to get the cores driven. As mentioned earlier, this assumes cores are already being taken for geotechnical purposes. If this survey and sampling is to be carried out solely for archaeological purposes the cost of vessel and equipment and carrying out cores could be significant, estimated at £30,000. However, the costs are dependent on weather, depth of sediment, number of cores examined, number of samples taken, and number of RCD measurements. The estimate is based on 3 very detailed cores being analysed for pollen, plant microfossils, foraminifera/ostracods, insects, diatoms, molluscs, and dating.</td>
</tr>
<tr>
<td>Terrestrial boreholes</td>
<td>£20,000</td>
<td>As for marine boreholes but on land. Similar reasons and methods and requirements, except the equipment needed is much less expensive (would add £5,000 to cost for 3 boreholes). Duration would be similar to marine boreholes. Costs and issues or factors that could affect costs and how they were estimated are the same as for marine boreholes above.</td>
</tr>
<tr>
<td>Description</td>
<td>Estimate £</td>
<td>Reason – duration – and estimate caveats</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Terrestrial geophysical survey</td>
<td>£5,000</td>
<td>If areas of ‘green’ space to be disturbed, geophysical survey could be undertaken.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short duration though interpretation can take a couple of weeks, so overall 4 weeks expected.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Costs are based on the presence of surveys for 1 day. Area uncovered in one day varies, so costs will be based on extent of survey required, and could therefore increase significantly. However, a maximum of around £20,000 would be assumed for the worst case.</td>
</tr>
<tr>
<td>Terrestrial field evaluation (trial trenching)</td>
<td>£15 per m²</td>
<td>Estimate of £20,000 Where geophysical survey or boreholing indicate potential archaeology, or where surface is concrete or other hard surfacing, a requirement may be made for trial trenching. Whilst this could be undertaken at the same time as trial trenching for geotechnical or land quality purposes, the costs identified therefore do not contain cost for equipment (digger) or reinstatement costs. Duration for a £20,000 survey would be around 2 weeks, but this would be dependent on how close the pits/trenches are together, and what surfacing the pits/trenches are made through, etc.</td>
</tr>
</tbody>
</table>
10.1 Introduction

During the preparation of this Technical Report, stakeholder engagement was principally carried out through an archaeology, heritage and monuments workshop. The workshop was held with a range of organisations and individuals with an interest, specialist expertise or advisory role with respect to the historic environment. The minutes of the workshop along with details of those attending are presented in Annex 4. Annexes 2 and 3 were circulated to those who attended or were unable to attend the workshop to incorporate their feedback and comments.

10.2 Further Stakeholder Engagement

Stakeholder engagement will increase through Technical Report 10: Communications Plan and following the recommendations and details identified in Technical Report 11: Environmental.

Because the archaeology, heritage and monuments would effectively fall within the EIA consenting process the stakeholder engagement for this would be integrated and combined. However, specific engagement would include the following consultees:

- English Heritage;
- Southampton City Council’s Archaeologist;
- Hampshire County Council’s Archaeologist;
- Environment Agency (Archaeological representative); and
- Local heritage groups.

10.3 Public Consultation

Public consultation would be undertaken following the recommendations and details identified in Technical Report 11: Environmental, as public consultation would be carried out covering all relevant environmental resources.
11.1.1 Programme

The programme for the consenting process is presented in Technical Report 11: Environmental. However, the different types of surveys that could be required have programme implications, which are identified Sections 9.1.1 and 9.1.2. Potentially, surveys could take between four and eight months to complete, from design to inception, prior to any interpretation and assessment taking place. This latter element would also require consultation with heritage curators in order to agree mitigation measures or pre-construction survey requirements.

The consenting route and associated EIA would form the programme for future elements of work (survey and assessment) for the historic environment, see Technical Report 11: Environmental. However, it should be noted that specific identification and commencement and completion of surveys would be carried out during the next stage when flood and coastal erosion risk management options are being developed in more detail, in order to narrow down the survey areas and types in order to maximise cost efficiency.

11.1.2 Risks

The key risks (as identified in the project risk workshop and determined during the preparation of the archaeological reports) to scheme inception relate to aspects that would arise during the consenting process, namely:

1. Insufficient data: If surveys are not carried out, or surveys are carried out which do not provide sufficient information to confirm the presence or absence of archaeological sites or features, there could be a requirement to undertake further surveys. This risk is reduced by developing survey requirements with the appropriate heritage curators (i.e. English Heritage, Portsmouth City Council Museum and Archaeologists, Southampton City Council Archaeologist, and Hampshire County Council Archaeologist), and sufficient clarification and specification for the surveys and survey areas;

2. Delay to programme due to survey duration and timing: As identified in the risk workshop on commencement of the project, the various archaeological surveys could affect the programme for completion of the ES and scheme consenting due to delay in identifying the survey specifications and survey areas. In order to reduce this risk, at the early stage of scheme optioneering, the likely areas of possible disturbance should be identified, and discussion then undertaken with the appropriate heritage curators (see above) to determine the required surveys. Survey specifications should be prepared rapidly and commenced as early as possible in order to provide adequate duration for surveys to be undertaken, findings to be produced, and clarification of whether further work is necessary (such as ground-truthing) in discussion with the appropriate heritage curators;
3. Impacts on designated sites and monuments: If a proposed scheme has the potential to impact on designated sites and monuments (i.e. Scheduled Monuments, Listed Buildings, Conservation Areas, and Historic Parks and Gardens) there could be objections from the statutory consultees which could negatively influence any planning or other consenting requirements. In order to prevent objections occurring, the following should be undertaken:

- Appropriate surveys to inform the consenting process (see Point 1);
- Develop scheme options in collaboration and partnership with the heritage curators (including English Heritage, Local Authority Archaeologists, etc); and
- Ensure sensitive consideration of designated sites and monuments when developing scheme options, commencing with identification of ‘constraining’ aspects of the designated sites and monuments prior to development progression.

The risks are also detailed in Technical Report 9: Risk and Programme Management.
12  CONCLUSIONS AND RECOMMENDATIONS

12.1  Conclusions

Whilst there are a wide range of archaeological, heritage and monument receptors within the study area ranging from locally important to nationally important, it is evident that the resource comprises upstanding monuments and features as well as buried remains that may be known but in many cases are unknown.

Whilst flood and coastal erosion risk management measures could adversely affect the physical or visual setting of known and unknown historic environment receptors it is also crucial to understand and be aware of the role of flood and coastal erosion risk management measures in protecting many built structures, many of which are listed, scheduled, or form part of conservation areas. Furthermore, awareness that some nationally important structures provide the solid flood and coast erosion risk management structures within parts of the study area is essential for future scheme option development.

Overall, a good knowledge of the range and character of the historic environment is known, and where data gaps are identified, these would be appropriately resolved in the next stage. There is an acceptance by the historic environment curators that the development of Scheme options, whilst having a potential for significant impacts on the historic environment resource, if sensitively designed and implemented could significantly improve and enhance the historic environment of Portsea and Southsea.

12.1.1  Legislation / Planning

Consents would generally be obtained through the EIA process described in Technical Report 11: Environmental. The planning legislation and guidance related to archaeology, heritage and historic monuments is presented in Section 3 ‘Planning Background’ of the Archaeological Desk-Based Assessment produced by Wessex Archaeology (see Annex 2).

12.2  Recommendations

Key recommendations with respect to the archaeological, heritage and monuments aspect of scheme development and opportunities to link to wider city initiatives and aspirations are:

1. Identify appropriate non-intrusive and intrusive survey requirements early in scheme option development;

2. Undertake collaborative and partnership working with heritage curators during the development of scheme options;

3. Improve the understanding of prehistoric landscapes, the exploitation of coastal resources, and coastal changes through deposit modelling and mapping supported by relevant borehole surveys, geo-archaeological sampling and palaeo-environmental analysis, and
sub-bottom geophysical survey and geotechnical investigations in locations in and around the proposed scheme option footprint; 

4. Reduce gaps in the knowledge and understanding of the historic maritime resource through further research (extended wreck research, scoping and reviewing existing geophysical and geotechnical data, obtaining salvage and clearance records, local archives searches, and community engagement, including wreck and obstruction data and social history information); 

5. Reduce gaps in the Second World War period of the island’s military history through, a programme of non-intrusive archaeological works, such as a geophysical survey, to provide a full understanding of the Second World War activities in the area of Alexandra Park (Flood Cell 4) by an attempt to locate the recorded rocket projector battery; 

6. Reduce gaps in site specific areas through research into more obscure publications and cartographic sources, as well as documentary research in local archives (including excavation records held by Portsmouth Museum and the Hampshire Field Club) or through community engagement could provide resolution to additional data gaps; 

7. Improve the appreciation of the Second World War features including the antitank features in Flood Cell 2 and the Pickett Hamilton Fort (Flood Cell 4) by providing on site interpretation and maintenance; 

8. Improve the appreciation of the overall historic environment through the development of an interpretation centre linked to community and visitor facilities; 

9. Improve the appreciation of the overall historic environment through the improvement of existing, or provision of new, on-site interpretation (including areas of historic core of Portsmouth, Langstone Harbour’s salt industry, and Victorian Southsea); 

10. Improve the public appreciation of the complex history of Portsmouth, including its links to Lord Nelson and the Battle of Trafalgar and the sinking of the Mary Rose, through public involvement in heritage related activities; 

11. Improve the appreciation of the overall historic environment through the management of the links between designated heritage assets, such as Southsea Castle and the maritime history of Portsmouth; 

12. Improvement of the condition and stability of designated assets through positive management, e.g. at Hilsea Lines; 

13. Plan for, and ensure appropriate management of, archaeological sites and finds during any intrusive works during surveys and construction of flood and coast defence schemes.
Portsmouth City Council (2008a) Portsea Island Coastal Strategy Study.
Portsmouth City Council (2008b) Portsea Island Coastal Strategy Study Strategic Environmental Assessment Environmental Report.
ANNEX 1: ARCHaeOLOGICAL DESK-BASED ASSESSMENT SPECIFICATION