

## 16 ARCHAEOLOGY AND CULTURAL HERITAGE

### 16.1 Introduction

This section sets out the results of an archaeological desk-based assessment and settings assessment, and presents the assessment of likely impacts upon the known and potential archaeological resource as a result of the proposed scheme.

### 16.2 Policy and consultation

#### 16.2.1 National Policy Statement for Ports

The assessment of potential impacts to archaeology and cultural heritage has been made with reference to the NPS for Ports (Department for Transport, 2012, Section 5.1.2 Historic Environment) as summarised in **Table 16.1**.

**Table 16.1** Summary of NPS for Ports requirements with regard to archaeology and cultural heritage

NPS requirement	NPS reference	Section where requirement has been addressed
As part of the ES, the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset.	Section 5.12.6	<b>Section 16.4</b>
As a minimum, the applicant should have consulted the relevant Historic Environment Record and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.	Section 5.12.6	<b>Section 16.4.1</b>
Where a development site includes, or the available evidence suggests it has potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation.	Section 5.12.7	Section <b>16.4</b> (please note that a field evaluation has not been required)
Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.	Section 5.12.7	<b>Section 16.4.4</b> (and visualisations in <b>Section 19</b> )
The possibility of damage to buried features from underwater disposal of dredged material should be taken into account.	Section 5.12.8	Disposal will be undertaken at an existing licensed offshore site.
The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.	Section 5.12.9	<b>Sections 16.5 and 16.6</b>

#### 16.2.2 National Planning Policy Framework

The NPPF (Ministry of Housing Communities and Local Government, 2019) considers the importance of the historic environment in planning and development and sets out the government's policies regarding development that affects the historic environment and informs the decision-making progress for Planning Authorities. It requires that proposals are fully assessed to help inform decision making. Provision for the

historic environment is given principally in Section 16 ‘Conserving and enhancing the historic environment’ (paragraphs 184-202) of the NPPF, which directs Local Planning Authorities to set out “*a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats*” (Paragraph 185). In doing so, Local Planning Authorities should recognise that heritage assets are “*an irreplaceable resource and should be conserved in a manner appropriate to their significance*” (Paragraph 184). Account has been taken of the policies set out in the NPPF in the assessment of archaeology and cultural heritage set out below.

### 16.2.3 Marine Policy Statement

Section 2.6.6. of the MPS outlines the approach to be taken with regards to the Historic Environment states that “*The historic environment includes all aspects of an area that are the result of an interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged*”. Of particular relevance to this assessment is Section 2.6.6.7 of the MPS which states that “*In considering the significance of heritage assets and their setting, the marine plan authority should take into account the particular nature of the interest in the assets and the value they hold for this and future generations. This understanding should be applied to avoid or minimise conflict between conservation of that significance and any proposals for development*”. In addition, Section 2.6.6.8 of the MPS states that “*Substantial loss or harm to designated assets should be exceptional, and should not be permitted unless it can be demonstrated that the harm or loss is necessary in order to deliver social, economic or environmental benefits that outweigh the harm or loss*”.

Account has been taken of the policies set out in the MPS in the assessment of archaeology and cultural heritage set out below.

### 16.2.4 North East Marine Plan

Policy NE-HER-1 of the draft North East Marine Plan states that “*Proposals that demonstrate they will conserve and enhance elements contributing to the significance of heritage assets will be supported. Proposals unable to conserve and enhance elements contributing to the significance of heritage assets will only be supported if they demonstrate that they will, in order of preference:*

- a) *avoid*
- b) *minimise*
- c) *mitigate harm to those elements contributing to the significance of heritage assets*
- d) *if it is not possible to mitigate, then public benefits for proceeding with the proposal must outweigh the harm to the significance of heritage assets*”.

The aim of this policy is to “*conserve and enhance marine and coastal heritage assets through considering the potential for harm to elements that contribute to their significance*”.

The assessment presented in this section takes account of policies set out in the North East Marine Plan.

### 16.2.5 RCBC Local Plan

Section 8 of the RCBC Local Plan (RCBC, 2018) addresses the Historic Environment, stating (paragraph 8,6) that “*Development proposals which affect the historic environment will need to sustain the borough's local distinctiveness and character by safeguarding, conserving and enhancing designated and undesignated heritage assets and their settings*”.

Policy HE 1 addresses conservation areas based upon the principle that, because of their special importance any change within a conservation area will be carefully controlled and appropriate layout, design,

materials and detailing will be necessary. There are, however, no conservation areas that would be affected by the proposed scheme.

Policy HE 2 addresses designated and non-designated heritage assets. As above, there are no designated heritage assets, nor non-designated heritage assets that are demonstrably of equivalent significance, which would be directly affected by the proposed scheme (see **Section 16.4.1**). However, the setting of specific designated heritage assets within a wider study area have been assessed (see **Section 16.4.4**), with regards to Policy HE 2, which states that any development affecting the setting of a designated heritage asset will only be permitted if the proposal:

- preserves or enhances its significance as a designated heritage asset;
- protects its immediate setting including the space(s) around the building and the historically significant hard and soft landscaping, including trees, hedges, walls, fences and surfacing; and
- retains historic plot boundaries and layouts.

Policy HE 3 (archaeological sites and monuments) states that a desk-based assessment, and an archaeological evaluation where necessary to determine an appropriate course of action, will be required to be submitted as part of a planning application for any development that may affect a known or possible archaeological site. The results of the desk-based assessment undertaken for the proposed scheme are presented in this section of the report. An archaeological evaluation has not been required for the purposes of the marine licence and planning application which this document supports. Policy HE 3 also states that, “Development that affects a site where archaeology exists or where there is evidence that archaeological remains may exist will only be permitted if:

- the harm or loss of significance is necessary to achieve public benefits that outweigh that harm or loss. Harm or loss may be avoided by preservation in situ or refusal; or
- where in situ preservation is not required, appropriate satisfactory provision is in place for archaeological investigation, recording and reporting to take place before, or where necessary during, development. Where archaeological investigation, recording and reporting has taken place it will be necessary to publish the findings within an agreed timetable.

Account is taken of these relevant policies in the assessment presented below.

## 16.2.6 Consultation

A summary of consultation responses relevant to the assessment of archaeology and cultural heritage and how these have been addressed is presented in **Table 16.2**.

**Table 16.2** *Summary of relevant consultation responses*

Consultation	Summary of response	Section where response has been addressed
MMO Scoping Opinion (previously proposed development from 2019)	The Tees has been subject to dredging in the recent past meaning the potential for archaeologically significant deposits or features to be impacted is likely to be negligible and therefore not necessary to be assessed.	<b>Section 16.4.2.</b>
	The development could have an impact on a number of designated heritage assets and their settings around the site. The MMO expects that the following designated heritage assets should be assessed in the ES: <ul style="list-style-type: none"> <li>• HA1139267 Transport Bridge</li> <li>• HA1160408 Baptist Church</li> </ul>	<b>Section 16.4.4</b>

Consultation	Summary of response	Section where response has been addressed
	<ul style="list-style-type: none"> <li>HA1139622 Church of St Peter</li> <li>HA1160378 War Memorial Circa 5 metres South West of Church of St Peter</li> <li>HA1310598 1 Milbank Street</li> <li>HA1329634 War Memorial</li> <li>HA1329635 Church of St John the Evangelist</li> </ul>	
	Views of the Grade II* Transporter Bridge should be assessed in the 'Landscape and Visual Impact Assessment' to determine the likely impact of the crane and other tall features in the proposal.	<b>Section 19</b>
	The ES should also consider the potential impacts on non-designated heritage assets since these can be of national importance. The Local Authority's Historic Environment Record (HER) should be consulted for baseline data in this regard.	<b>Section 16.4.1</b>
RCBC Archaeology Consultant Scoping Opinion (previously proposed development from 2019)	The cultural heritage chapter of the relevant EA should be required to consider (a) both the direct and indirect archaeological impacts to all designated heritage assets and their settings; and (b) the direct and indirect effects on non-designated heritage assets and their settings. A sufficiently large zone of archaeological interest should be considered for the assessment of both designated and non-designated assets. This zone is likely to be of a minimum 2km radius from the application site, and in relation to impacts on setting is likely to be considerably larger.	<b>Sections 16.5, 16.6 and 16.3.1</b>
Conversation and Listed Building Conservation (Landside Planning Application)	The proposal to mitigate the loss of relatively low significance industrial archaeology by recording features uncovered during ground work and photogrammetric recording of remaining above ground structures is considered to be sufficient. The submitted documents are considered to fulfil policy requirements.	<b>Section 16.5</b>
	They agree with the recommendations set out within the Below Ground Heritage Chapter. The only exception to this would be remains of blast furnaces from the South Bank Iron works, were they to be present in any form on site; however, the chapter states that this Iron Works is no longer extant in any form (having been built over), albeit it is unclear whether this conclusion is due to site inspection/evaluation, or solely a matter of historical record.	N/A (applicable to landside application only)
	Because the site consists of deep made-up ground above former tidal mud flats and marsh Chapter M states categorically that no prehistoric remains will exist on the site. This is a conclusion that may be a little too sweeping, given the location of the site, at the tidal edge, in an area likely to have been exploited in the prehistoric period. Rather than the conclusion, it is the paucity of evidence – at least as far as this is set-out within chapter M – for the conclusion that concerns us. The former land surface is undoubtedly sealed at depth (especially at the southern part of the site), and the site has been heavily developed, but an area at the coast, and one probably subject to late Holocene inundation such as the Tees estuary, could be of archaeological potential if that surface is buried but not destroyed by development. Evidence of prehistoric activity or deposits, would typically be of peat, waterlogged wood, coppiced or worked wood, worked flint, worked animal bone and antler.	<b>Section 16.4.2</b>
RCBC Archaeology Consultant Scoping Opinion (Landside Planning Application)	Site investigation information (especially borehole data and cores) should be archaeologically inspected, with a view to identifying any layers of prehistoric archaeological interest; and any positive results in that regard should inform where any deep excavations (including piling) carried out as part of construction should be monitored by a paleo-environmental archaeologist.	<b>Section 16.4.2</b>

Consultation	Summary of response	Section where response has been addressed
	<p>Recommendations</p> <ol style="list-style-type: none"> <li>1. There should be appropriate recording of the foundations of identified heritage assets of local / regional importance, and of 20th century structures.</li> <li>2. There should be some attempt to assess deeply buried layers of prehistoric interest, and thereafter the archaeological monitoring of deep excavations in areas where any deposits of pre-historic interest may survive.</li> <li>3. A condition requiring a written scheme of investigation for archaeological work.</li> </ol>	<b>Section 16.5</b>
RCBC Archaeology Consultant Scoping Opinion (currently proposed scheme)	In general we agree with the statement within the memorandum that marine heritage is likely to be limited by dredging within the immediate area of the proposed dock facilities. Archaeological review of borehole logs is welcome, as part of the heritage assessment.	<b>Section 16.4.2</b>
	In addition, the archaeological desk-based assessment should indicate in relation to wreck sites whether these are situated within an area of proposed new dredging (either for construction or on-going channel maintenance).	<b>Sections 16.4.1 and 16.4.2</b>

## 16.3 Methodology

### 16.3.1 Study area

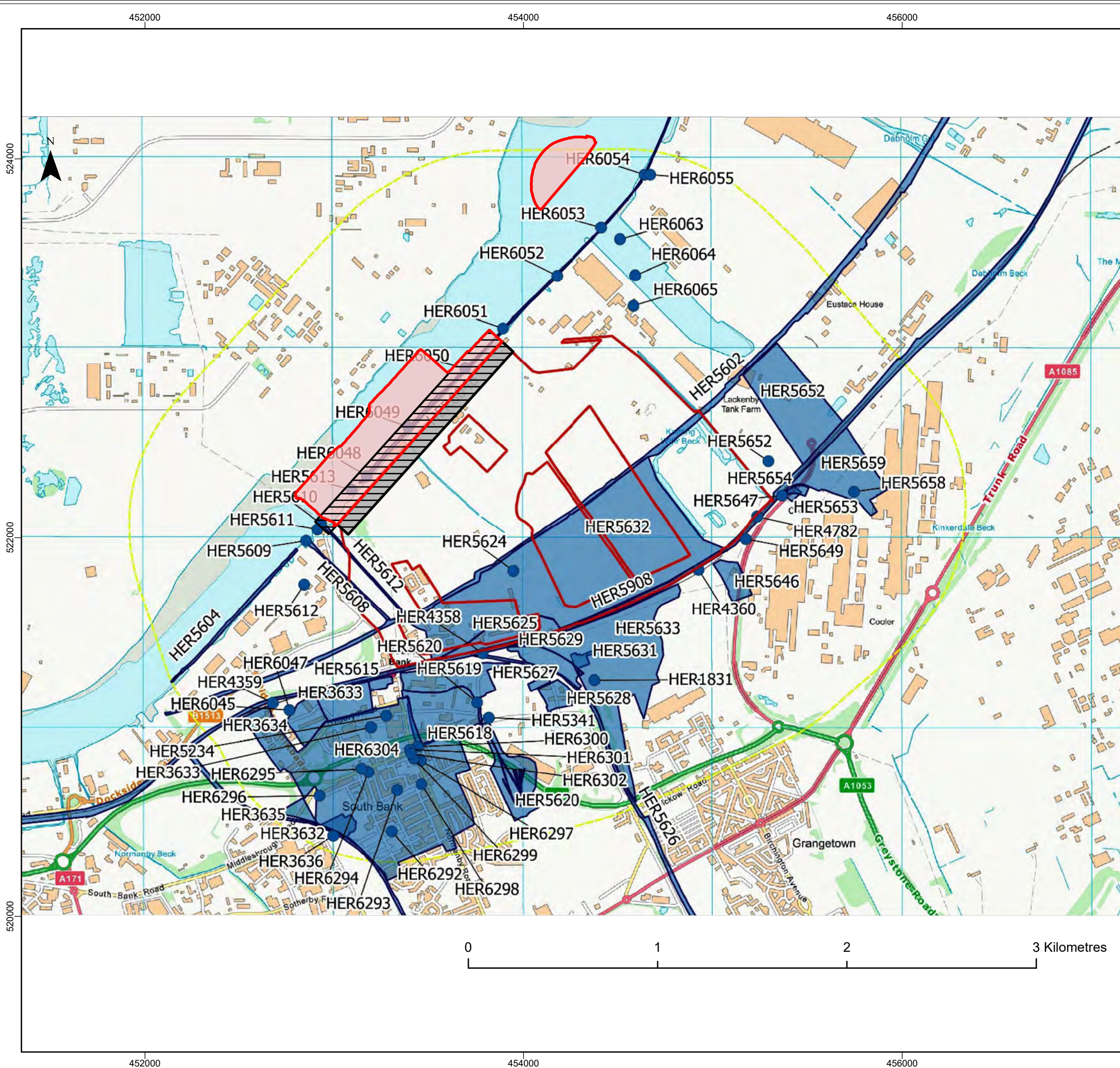
The study area for the purposes of the assessment presented below comprises the footprint of the elements of the proposed scheme (**Figure 1.1**). The study area for archaeological assessment does not include the offshore disposal site as this is an existing, licenced facility. This study area has been extended for the archaeological desk-based assessment as follows:

- For the purposes of data searches, the assessment of existing conditions for the planning application was based on a study area extending 1km from the boundary of the proposed scheme footprint on land, which incorporates the proposed marine and coastal study area (**Figure 16.1**);
- For the settings assessment (see **Section 16.4.4**) designated heritage assets within a 3km boundary of the proposed scheme footprint have been taken into account (**Figure 16.2**); and
- For the assessment of indirect effects associated with potential changes to the hydrodynamic and sedimentary regime (see **Section 6**) the study area comprises all areas of river, adjacent coastline and offshore seabed that potentially could be affected by the proposed scheme, including the dredging and offshore disposal activities (**Figure 6.2**).

### 16.3.2 Sources of data

The following sources of data have been accessed to inform the assessment:

- Records of designated heritage assets from the National Heritage List for England (NHLE) (<https://historicengland.org.uk/listing/the-list/>) and including listing data for GIS;
- Desk-based assessment prepared by Prospect Archaeology for the terrestrial elements of the proposed works (Appendix M1 of the Environmental Statement) including data from the Redcar and Cleveland Historic Environment Record (HER) (see **Figure 16.1**);
- National Historic Landscape Characterisation (HLC) open source data for ArcGIS;
- National Historic Seascape Characterisation (HSC) GIS dataset provided by Historic England;



**Legend**

- Proposed Dredge and Excavation Envelope (including side slopes)
- Proposed Quay Envelope
- Proposed Demolition Area

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 Redcar & Cleveland HER undesignated heritage assets from South Industrial Zone ES, Vol 3, App M, July 2020  
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Client: <p style="text-align: center;">Tees Valley Combined Authority</p>	Project: <p style="text-align: center;">South Bank Quay</p>
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Title:  

**Undesignated Heritage Assets  
(Cleveland & Redcar HER)**

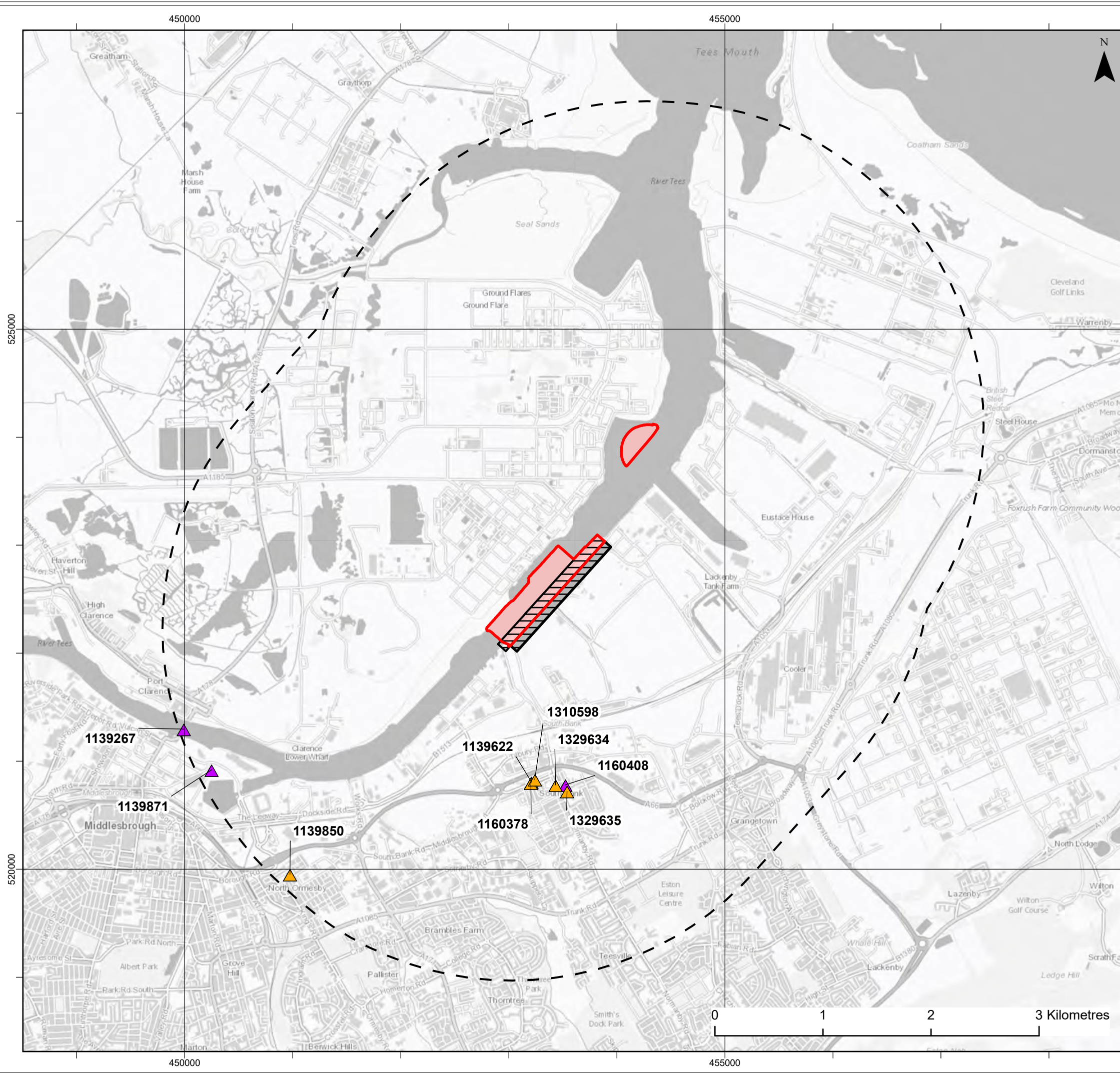
Figure: 16.1

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Co-ordinate system: British National Grid

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**Legend**

- 3km Search Area
- Proposed Dredge and Excavation Envelope (including side slopes)
- Proposed Quay Envelope
- Proposed Demolition Area

**Listed Buildings**

Grade

- II
- II\*

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Client:	Project:
Tees Valley Combined Authority	South Bank Quay

Title:

**Designated Heritage Assets**

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- The 'Wrecks within UK EEZ' GIS dataset made available by UKHO under Open Government Licence via the Admiralty marine data portal;
- The CITIZAN (Coastal and Intertidal Zone Archaeological Network) coastal map of intertidal heritage (<https://www.citizen.org.uk/>);
- The North East Rapid Coastal Zone Assessment (NERCZA) (Archaeological Research Services Ltd, 2009) reporting and GIS downloaded from the Archaeology Data Service (ADS) (<https://archaeologydataservice.ac.uk/>);
- Existing archaeology and heritage baseline information from various development projects and proposals within the South Tees industrial zone including:
  - Cultural heritage desk based assessment for the NGCT (AOC Archaeology Group, 2005);
  - Archaeological assessment for the Anglo American Harbour Facility (Royal HaskoningDHV, 2015)
  - Geoarchaeological assessment for the Anglo American Harbour Facility (Cotswold Archaeology, 2014); and
  - QEII Berth Development ES (Royal Haskoning, 2009).

### 16.3.3 Impact assessment methodology

The general method for impact assessment is set out in **Section 5**. The specific approach to the assessment of impacts for archaeology and cultural heritage are detailed below.

The impact assessment defines heritage assets, and their settings, likely to be impacted by the proposed scheme and assesses the level of any resulting benefit, harm or loss to their significance. The assessment is not limited to direct (physical) impacts, but also assesses possible indirect (physical) impacts upon heritage assets which may arise as a result of changes to hydrodynamic and sedimentary processes and indirect (non-physical) impacts upon the setting of heritage assets, whether visually, or in the form of noise, dust and vibration, spatial associations and a consideration of historic relationships between places and the historic seascape character.

The sensitivity of a receptor is a function of its capacity to accommodate change and reflects its ability to recover if it is affected. However, while impacts to a heritage asset's setting or character can be temporary, impacts which result in damage or destruction of the assets themselves, or their relationship with their wider environment and context, are permanent. Once destroyed an asset cannot recover. On this basis, the assessment of the significance of any identified impact is largely a product of the heritage significance (importance) of an asset (rather than its sensitivity) and the perceived magnitude of the effect on it, assessed and qualified by professional judgement.

Specifically, therefore, the impact assessment will present:

- The heritage significance (importance) of any heritage assets identified as being affected;
- The anticipated magnitude of effect (change) upon those assets and their settings;
- The significance of any identified impacts upon those assets and their settings; and
- The level of any harm (or benefit) and loss of heritage significance (importance).

The criteria for determining the heritage significance of assets is set out in **Table 16.3**.



**Table 16.3** *Criteria for determining heritage significance*

Heritage significance	Definition/example assets
High (perceived International/National Importance)	Assets of acknowledged international/national importance (e.g. World Heritage Sites, Scheduled Monuments, Protected Wreck Sites and currently non-designated assets (including previously unrecorded assets) of the quality and importance to be designated under national and international legislation). Assets that can contribute significantly to acknowledged international/national research objectives.
Medium (perceived Regional Importance)	Assets that contribute to regional research objectives. Assets with regional importance, educational interest or cultural appreciation.
Low (perceived Local Importance)	Assets that contribute to local research objectives. Assets with local importance, educational interest or cultural appreciation. Assets that may be heavily compromised by poor preservation and/or poor contextual associations.
Negligible	Assets with no significant importance or archaeological/historical interest.
Unknown	The importance/existence/level of survival of the asset has not been ascertained (or fully ascertained/understood) from available evidence.

The classification of the magnitude of effect on heritage assets takes account of such factors as:

- The physical scale and nature of the anticipated disturbance; and
- Whether specific features or evidence would be lost which are fundamental to the historic character and integrity of a given asset, including its understanding and appreciation.

The finite nature of archaeological remains means that direct physical impacts (e.g. those arising as a result of intrusive groundworks) are almost always adverse, permanent and irreversible; the 'fabric' of the asset and, hence, its potential to inform our historical understanding, will be removed. By contrast, indirect non-physical effects upon the setting of heritage assets will depend upon the scale and longevity of the potential effect. Similarly, indirect physical impacts (e.g. increased burial or exposure of heritage assets arising as a by-product of changes to hydrodynamic and sedimentary regimes resulting from a project) may also depend upon scale and longevity.

The criteria used for assessing the magnitude of effect with regard to archaeology and cultural heritage are presented in **Table 16.4**.

**Table 16.4** *Criteria for assessing magnitude of effect*

Magnitude	Definition
High adverse	Key elements of the asset's fabric and/or setting are lost or fundamentally altered, such that the asset's heritage significance is lost or severely compromised.
Medium adverse	Elements of the asset's fabric and/or setting which contribute to its significance are affected, but to a more limited extent, resulting in an appreciable but partial loss of the asset's heritage significance.
Low adverse	Elements of the asset's fabric and/or setting which contribute to its heritage significance are affected, resulting in a slight loss of heritage significance.
Negligible	The asset's fabric and/or setting is changed in ways which do not materially affect its heritage significance.
Low beneficial	Elements of the asset's physical fabric which would otherwise be lost, leading to a slight loss of cultural significance, are preserved <i>in situ</i> ; or Elements of the asset's setting are improved, slightly enhancing its cultural significance; or

Magnitude	Definition
	Research and recording leads to a slight enhancement to the archaeological or historical interest of the asset. This only applies <i>in situ</i> where the asset would not be otherwise harmed i.e. it is not recording in advance of loss.
Medium beneficial	Elements of the asset's physical fabric which would otherwise be lost, leading to an appreciable but partial loss of cultural significance, are preserved <i>in situ</i> ; or Elements of the asset's setting are considerably improved, appreciably enhancing its cultural significance; or Research and recording leads to a considerable enhancement to the archaeological or historical interest of the asset. This only applies in situations where the asset would not be otherwise harmed i.e. it is not recording in advance of loss.
High beneficial	Elements of the asset's physical fabric which would otherwise be lost, severely compromising its cultural significance, are preserved <i>in situ</i> ; or Elements of the asset's setting, which were previously lost or unintelligible, are restored, greatly enhancing its cultural significance.
No Impact	No change to the assets fabric or setting which affects its heritage significance.

The significance of any identified impact, expressed as a product of the heritage significance (importance) of an asset and the perceived magnitude of the effect on it will be determined in accordance with the significance matrix presented in **Table 16.5**. The impact significance categories are divided as shown in **Table 16.6**. The outcome will thereafter be assessed and qualified by expert judgement, expressed as a narrative description of the level of harm and/or benefit to heritage significance of identified assets.

**Table 16.5** Impact significance matrix

Heritage Significance	Magnitude of effect			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Minor
Low	Moderate	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

**Table 16.6** Significance of effect definitions

Significance of Effect (level)	Definition
Major	Change in heritage significance, both adverse or beneficial, which are likely to be important considerations at an international, national or regional level because they contribute to achieving national or regional objectives. Effective/acceptable mitigation options may still be possible, to offset and / or reduce residual impacts to satisfactory levels.
Moderate	Change in heritage significance, both adverse and beneficial, which are likely to be important considerations at a local level. Effective / acceptable mitigation options may still be possible, to offset and / or reduce residual impacts to satisfactory levels.
Minor	Change in heritage significance, both adverse or beneficial, which may be raised as local issues but are unlikely to be material considerations in the decision making process. Industry standard mitigation measures may still apply.
Negligible	No material change to heritage significance.
No effect	No change to heritage significance.

For the purposes of EIA, ‘major’ and ‘moderate’ impacts are generally deemed to be significant (in EIA terms). In addition, whilst minor impacts are not significant in their own right, it is important to distinguish these from other non-significant (negligible) impacts as they may contribute to significant impacts cumulatively or through interactions between heritage assets or elements of the historic environment (historic landscape / seascape).

Where uncertainty occurs, a precautionary approach has been taken to ensure that impacts are not under assessed. Where the extent of harm is uncertain, either because an asset is not fully understood (i.e. if further investigation is required to establish the significance of an asset) or the magnitude of the impact is unclear (i.e. because the design is not yet finalised), the precautionary approach is to assume the potential for major (substantial) harm.

## 16.4 Existing environment

### 16.4.1 Known heritage assets

The locations of designated heritage assets were mapped against the footprint of the proposed scheme using GIS, which demonstrated the presence of nine Listed Buildings within 3km of the proposed scheme footprint. There are listed in **Table 16.7** and illustrated on **Figure 16.2**.

**Table 16.7** *Designated heritage assets within the 3km study area*

List entry	Name	Location	Grade
1139267	Transporter Bridge	Billingham, Stockton-on-Tees, TS2	II*
1139622	Church of St Peter	Redcar and Cleveland, TS6	II
1139850	Church of the Holy Trinity	Middlesbrough, TS3	II
1139871	Dock clock tower	Middlesbrough, TS2	II*
1160378	War memorial circa 5m south west of Church of St Peter	Redcar and Cleveland, TS6	II
1160408	Baptist church	Redcar and Cleveland, TS6	II*
1310598	1, Milbank Street	Redcar and Cleveland, TS6	II
1329634	War memorial	Redcar and Cleveland, TS6	II
1329635	Church of St John the Evangelist	Redcar and Cleveland, TS6	II

None of these Listed Buildings are within the proposed scheme footprint and the closest to the site are those within South Bank (Redcar and Cleveland, TS6), approximately 1.5km to the south. There are no other types of designated heritage assets (e.g. protected wrecks, scheduled monuments) within the study area.

A search of the Redcar and Cleveland Historic Environment Record (HER) was undertaken by Prospect Archaeology to inform the planning application submitted by Lichfield’s for the landside development in June 2020. As the search area also covered the proposed scheme footprint which is the subject of this report, the search has not been repeated. The distribution of the HER records have been **Figure 16.1**. Of these, nine fall within (or in the immediate vicinity of) the proposed scheme footprint. These nine are listed in **Table 16.8**.

**Table 16.8** *HER Records within the proposed scheme footprint*

HER no.	Name / description	Date / Period
5610	Eston Wharf	19th century
5611	Custom House	19th century
5612	Eston Jetty	19th century
5613	Mooring Stage	19th century
6046	Reclamation Wall	19th century
6048	Beacon	19th century
6049	Beacon	19th century
6050	Beacon	19th century
6051	Beacon	19th century

The four HER records of Beacons relate to former marker beacons marked on the Ordnance Survey 1<sup>st</sup> Edition (1857) and do not represent extant heritage assets. Similarly, as discussed by Prospect Archaeology for the landside application, jetties and wharves constructed in the 19<sup>th</sup> century (including Eston Wharf, Eston Jetty and the Mooring Stage in **Table 16.8**) were all gone by 1915, when reclamation was extended to its current boundary, and do not, therefore, represent extant heritage assets. Similarly, reclamation walls (including HER6046 within the proposed scheme footprint) are marked along the riverbank dating from the 19<sup>th</sup> century. Assessment undertaken for the QEII Berth (Royal HaskoningDHV, 2009), which overlaps with the current study area, states that, according to the Harbour Master, no existing evidence of these recorded assets remains at the recorded locations (Royal Haskoning, 2009). The Custom House (HER5611), which had been built between Eston Wharf and Clay Wharf, was replaced by a new Custom House further to the North East along the riverbank.

HER data for the northern bank of the River Tees is maintained by Tees Archaeology. The online terrestrial map shows that there are no HER records located on the opposite bank of the river ([www.teesarchaeology.com/projects/HER/HER.html](http://www.teesarchaeology.com/projects/HER/HER.html)) and a formal search of the Tees Archaeology HER was not, therefore, progressed. Similarly a search of the Heritage Gateway online database ([www.heritagegateway.org.uk](http://www.heritagegateway.org.uk)) shows no records from local or national sources on the northern bank of the Tees across the river from the proposed scheme footprint.

The CITIZAN interactive coastal map and the NERCZA GIS (and associated reporting) were also checked for any records of finds or features. No records additional to those reported from the HER were identified.

The 'Wrecks within UK EEZ' GIS data demonstrates the presence of a single wreck, outside but in the vicinity of the proposed scheme footprint (**Figure 16.3**). This wreck is also recorded on the Tees Archaeology HER maritime map (<http://www.teesarchaeology.com/maps/marinemap.html>). This corresponds to the remains of a Seaplane located WSW of Tees Dock, close to the existing dilapidated South Bank Wharf (which is to be demolished as part of the proposed scheme) in the intertidal zone. During the First World War there was a seaplane station at Seaton Carew (Archaeological Research Services, 2008). The position is, however, reported to be unreliable and no further details are known. This recorded wreck is not, therefore, considered to represent extant, existing remains but is considered as a potential heritage asset, as discussed in **Section 16.4.2** below.



**Legend**

- Proposed Dredge and Excavation Envelope (including side slopes)
- Proposed Quay Envelope
- Proposed Demolition Area
- UKHO Wreck
- NRHE Maritime Record

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Title:  
**Wrecks and Reported Losses**

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Although there are no previously recorded, extant non-designated heritage assets within the proposed scheme footprint, the site of the proposed scheme is currently occupied by the dilapidated wharf, three jetties and various buildings and structures on the riverbank. As STDC has prior approval for the demolition of existing infrastructure within the landward part of the proposed scheme footprint (with the exception of an electrical substation and pipework associated with the pumping station), these buildings and structures are not considered further here.

However, the South Bank Wharf itself, first appears on historic Ordnance Survey mapping from 1913 (**Figure 16.4**), presumably associated with the phase of reclamation which extended the dry land to its current boundary. Jetties are first marked in the locations downstream of the wharf in 1927 (**Figure 16.5**). Although these are not recorded by the HER, both the wharf and the jetties should be considered as early 20<sup>th</sup> century heritage assets of low heritage significance in accordance with the definitions in **Table 16.3** (assets with local importance and compromised by poor preservation).

### 16.4.2 Potential heritage assets

The anticipated geology of the site comprises made ground overlying superficial Tidal Flat Deposits which in turn overlie the Mercia Mudstone Group. Geoarchaeological assessment of vibrocore and borehole logs undertaken for the Anglo American Harbour Facility to the north of the currently proposed (Cotswold Archaeology, 2014) suggested the presence of five sedimentary units:

- Unit 1 Weathered Bedrock;
- Unit 2 Estuarine alluvium and peat (possible mid-Holocene sediments);
- Unit 3 Marine sediments/ Estuarine alluvium;
- Unit 4 Estuarine alluvium/ polluted fluvial sediments; and
- Unit 5 Made ground (20th century).

The desk-based assessment for the NGCT (AOC, 2005) highlighted that within the Tees estuary the presence of peat and alluvial deposits 'may preserve evidence of early use of the Tees and as such should be subject to further investigation'. Estuaries were often a focus for prehistoric settlement due to the prevalence of natural resources and, in the wider vicinity of the study area, a Neolithic stone axe head is known to have been found during dredging within the river channel and there is a submerged forest located near Hartlepool on the north bank. Although extensive dredging and reclamation has taken place within the Tees estuary, as highlighted in various previous studies (i.e. AOC Archaeology, 2005), the potential for the presence of prehistoric land surfaces (indicated by for example surviving peat deposits) still remains, preserved beneath later sediments. Given this potential, geoarchaeological assessment of geotechnical vibrocores/boreholes, planned as part of a marine ground investigation to be undertaken in November 2020 will be carried out.

Within the area to be excavated behind the proposed combi-wall there are no previously recorded, extant heritage assets which require further consideration as part of this assessment. As part of the landside planning application submitted by Lichfields in June 2020, it has been recommended that the 20th century Riverside Pumping House and Custom House, which do fall within the proposed scheme footprint, should be recorded using photogrammetric / measured survey techniques (it should be noted that a prior notification application has been submitted to RCBC for the demolition of the pumping station in September 2020). Due to the reclamation of this area in the early 20<sup>th</sup> century, the potential for buried archaeological remains is limited to former industrial uses of the site post c. 1915 in date. There are no previously recorded military heritage assets within the proposed scheme footprint.



**Legend**

- Proposed Dredge and Excavation Envelope (including side slopes)
- Proposed Quay Envelope
- Proposed Demolition Area

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Client: <p style="text-align: center;">Tees Valley Combined Authority</p>	Project: <p style="text-align: center;">South Bank Quay</p>
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Title:  

**Historic Mapping 1913  
with South Bank Scheme Boundary**

Figure: 16.4

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- Legend**
- Proposed Dredge and Excavation Envelope (including side slopes)
  - Proposed Quay Envelope
  - Proposed Demolition Area

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Title:  
**Historic Mapping 1927  
with South Bank Scheme Boundary**

Figure: 16.5

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With regard to the potential for previously undiscovered wrecks, and wreck related material, to be present within the study area, the assessment undertaken for the Anglo American Harbour Facility (Royal HaskoningDHV, 2014) makes reference to 20 recorded losses of ships and boats recorded by the National Record of the Historic Environment (NRHE) within the River Tees (**Figure 16.4**). These are losses which have been documented historically but for which the remains of the recorded ships and boats have never been found. For example, Heckler (NRHE 908826/HER 3119) was a wherry, a type of boat traditionally used for carrying cargo or passengers within rivers or canals, that sank in River Tees in the fairway in the vicinity of Teesport in 1960. Nineteen further vessels are recorded as lost between 1751 and 1921, arbitrarily grouped by the NRHE at a 'Named Location' just to the north of the entrance to Tees Dock.

These losses are a useful indicator of the high potential for the presence of previous unidentified wreck remains within the River Tees. Furthermore, the use of the estuary as a historic shipping, transport and trade route, and also as a port from at least the medieval period onwards, points to the potential for greater numbers of vessels to have been lost within the Tees, but perhaps not officially reported, and for which surviving wreck material may potentially be present within the footprint of the proposed scheme.

There may also be archaeological remains associated with military activity with both the First and Second World Wars. As mentioned above, during the First World War there was a seaplane station at Seaton Carew (Archaeological Research Services, 2008) and the reported location of a seaplane seen in the intertidal zone is located in the vicinity of the proposed scheme footprint (**Figure 16.3**). Although the reported position is unreliable, and the position, nature and extent of this previously reported seaplane are unclear, remains may be present, possibly buried or fragmented, and potentially within the proposed scheme footprint. Prospect Archaeology also note that the area that went on to become Teesport was used as a submarine base during the First World War, with properties understood to have been used as accommodation and administrative buildings for a Heavy Anti-Aircraft Gun Battery during the Second World War. As a major port and industrial centre, Teesport was a bombing target during the Second World War and a number of military defences including bombing decoy sites were constructed at this time (AOC, 2005).

This potential for buried/submerged archaeological material, however, is significantly reduced by the historic reclamation and disturbance from previous dredging within the channel. Although there is high potential for losses of wrecks and aircraft, for example, there is reduced potential for remains of these vessels to have survived *in situ* within the river channel. However, archaeological material may still survive, albeit fragmentary and dispersed, or potential preserved within intertidal areas along the riverbank, as suggested for the reported Seaplane.

The heritage significance of such remains is unknown, and would be established on a case by case basis if such a discovery should occur. However, such remains could be of high significance, particularly so given that all crashed aircraft in military service are automatically protected under the Protection of Military Remains Act 1986, even if such remains are fragmentary and dispersed.

### 16.4.3 Historic character

The historic landscape of the South Bank area is one of 19<sup>th</sup> and 20<sup>th</sup> century industrial heritage, and industry still defines and dominates the region today.

The study area is covered by both historic landscape and historic seascape character mapping.

The National Historic Landscape Characterisation (HLC) open source data for ArcGIS shows that the dominant HLC types within and in the vicinity of the site are defined as:

- Commerce (Unspecified), Victorian to 21<sup>st</sup> Century (Mixed commercial and Estuary);

- Manufacturing Industry, Victorian/Post-war to 21<sup>st</sup> Century (Steel Works, Docks, Chemical Industry and Estuary); and
- Coastal and Intertidal Rough Ground, Victorian/Post-war to 21<sup>st</sup> century (Estuary, Docks, Steel Works, Chemical Industry and Mixed Commerce).

The National Historic Seascape Characterisation (HSC) GIS dataset shows that the dominant HSC types within and in the vicinity of the proposed scheme footprint are defined as:

- Industrial production, Processing Industry (Teesside Works (Corus), large area of active Steel Industry), Modern (AD1900 – Present);
- Chemical works, Processing industry (large active chemical industry at Tees Mouth), Modern (AD1900 – Present);
- Dockyard, Ports and Docks (area of docks at Teesport), Modern (AD1900 – Present);
- Navigation Route, Navigation Activity (Main commercial shipping routes), Modern (AD1900 – Present);
- Dredged channel/area, Navigation feature (Section of navigable waters), Modern (AD1900 – Present); and
- Wreck hazard, Navigation hazard (Wreck, Aircraft, SEAPLANE), Unknown.
- Additional and previous character types are listed as:
  - Fishing Grounds (Medieval (AD1066 – 1540);
  - Longlining, Post Medieval (AD1540 – 1750);
  - Fishing (Inshore vessels mainly cobbles. Set Netting and lining. Haddock, Whiting, Coalfish, Pollack, Wrasse, and Cod) Early Modern (AD1750 – 1900); and
  - Palaeolandscapes, Mesolithic (10,000BC – 4000BC).

The non-technical summary text from the HSC previous character type descriptions (provided with the GIS dataset by Historic England) state that historically, longlining for white fish from cobbles was the most common fishing activity in the north east. The character area defined immediately upstream from the proposed scheme footprint describes high potential for the existence and survival of archaeological evidence for Mesolithic human habitation based on documentary research and available models (see **Section 16.4.2** above).

The historic landscape character and seascape character described above show that elements of the proposed scheme (dredging and construction of the new quay) are in keeping with the historic (and current) character of the study area and that both the historic landscape and seascape character of the study area have capacity to accommodate this change in line with the ongoing industrial uses of the wider locality.

#### 16.4.4 Setting

The MMO and RCBC requested that the potential impacts upon the setting of heritage assets be considered as part of the assessment.

The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning 3 (Historic England, 2017) provides guidance on setting and development management, including on assessing the implications of development proposals. The setting of a heritage asset is described as the surroundings in which a heritage asset is experienced and elements of a setting may make a positive or negative contribution to the

significance of an asset, may affect the ability to appreciate that significance or may be neutral. This industry-standard guidance document recommends a stepped (stage-based) approach for assessing the heritage setting implications of development proposals, as follows:

- Step 1: identify those heritage assets whose setting might be affected;
- Step 2: assess whether, how and to what degree setting makes a positive contribution to the value of those heritage assets;
- Step 3: assess the effect of the proposed development on the significance of those assets as a result of changes to setting;
- Step 4: maximise enhancement and minimise harm; and
- Step 5: make and document decisions and monitor outcomes.

There are nine designated heritage assets within 3km of the proposed scheme footprint which have been examined as part of Step 1 for the purposes of the assessment. Although a site visit was not carried out explicitly for the purposes of the heritage assessment, online mapping and digital imagery and photographs of the site, including the results of the LVIA assessment (**Section 19**) have been used to inform an initial screening exercise for Step 1. The results are detailed in **Table 16.9**.

**Table 16.9** Settings assessment Step 1

List entry	Name	Grade	Settings assessment
1160378	War memorial circa 5m south west of Church of St Peter	II	No intervisibility due to intervening urban development. Existing traffic (A66) and urban/industrial activities. No impact on setting. See viewpoints 9 and 10 ( <b>Section 19</b> ).
1139850	Church of the Holy Trinity	II	No intervisibility due to intervening urban development. Existing traffic (A66) and urban/industrial activities. No impact on setting. See viewpoints 3, 4 and 5 ( <b>Section 19</b> ).
1329634	War memorial	II	No intervisibility due to intervening urban development. Existing traffic (A66) and urban/industrial activities. No impact on setting. See viewpoints 9 and 10 ( <b>Section 19</b> ).
1160408	Baptist church	II*	No intervisibility due to intervening urban development. Existing traffic (A66) and urban/industrial activities. No impact on setting. See viewpoints 9 and 10 ( <b>Section 19</b> ).
1310598	1, Milbank Street	II	No intervisibility due to intervening urban development. Existing traffic (A66) and urban/industrial activities. No impact on setting. See viewpoints 9 and 10 ( <b>Section 19</b> ).
1329635	Church of St John the Evangelist	II	No intervisibility due to intervening urban development. Existing traffic (A66) and urban/industrial activities. No impact on setting. See viewpoints 9 and 10 ( <b>Section 19</b> ).
1139267	Transporter Bridge	II*	Heavy lifting cranes and the temporary storage of two sets of full wind turbine towers will be visible and impacts upon the setting of the Transporter Bridge may be discernible. See viewpoint 12 ( <b>Section 19</b> ).
1139622	Church of St Peter	II	No intervisibility due to intervening urban development. Existing traffic (A66) and urban/industrial activities. No impact on setting. See viewpoints 9 and 10 ( <b>Section 19</b> ).
1139871	Dock clock tower	II*	Elements of proposed infrastructure will be indiscernible due to distance from site and existing industrial setting. See viewpoints 3 and 12 ( <b>Section 19</b> ).

Following the completion of Step 1, therefore, only the Transporter Bridge has been taken forward for further consideration under Step 2.

With regard to the positive contribution that setting makes to the heritage value of the Transporter Bridge, the List Entry for 1139267 described the key features of the Bridge as its design in 1911 by G.C. Imbault (Cleveland Bridge and Engineering Co.Ltd.) and construction by Sir William Arrol and Company Limited (Glasgow). The bridge was opened by Prince Arthur of Connaught and built of plated and riveted steel with two pairs of tapering towers on steel and concrete caissons, supported by main cantilevered trusses. The Middlesbrough Council website (<https://www.middlesbrough.gov.uk/parking-roads-and-footpaths/tees-transporter-bridge>) describes the bridge as, *the area's landmark since opening in 1911. It is the longest working transporter bridge in the world and an iconic symbol of Teesside's engineering and industrial heritage. The Tees Transporter Bridge has played an important role in the area's history for over a century and continues to provide an important and unique crossing over the River Tees.* Following receipt of the Heritage Lottery Fund (HLF) Grant in 2011, the bridge has emerged as a leading historic visitor attraction and is one of the UK's major sites for extreme sports including abseils, bungee jumps and zip-slides. Although a key feature of the visitor attraction since 2011 is a glass lift from which visitors can experience views of the surrounding area, in terms of its heritage value, its landmark position across the River Tees, within the commercial and industrial heritage setting to which its function pertains, forms the primary contribution of its setting to that value.

The effect of the proposed development on the significance of the bridge as a result of changes to setting during construction and operation are assessed below.

## 16.5 Potential impacts during the construction phase

The dilapidated remains of the early 20<sup>th</sup> century South Bank Wharf and three jetties will be demolished as part of the proposed scheme. As described in **Section 16.4.1**, these are assessed as being of low heritage significance. However, due to the proposed destruction of these structures, in accordance with the definitions in **Table 16.4**, the magnitude of effect is considered to be high resulting in a **moderate adverse** impact. In order to mitigate this impact, a suitable record of the structures will be prepared prior to demolition, anticipated to comprise a photographic record and drone footage of the wharf and jetties. The suitability of this record will be confirmed in advance of demolition with RCBC and submitted to the RCBC HER. With appropriate mitigation, the residual impact will be reduced to **minor adverse** and not significant in EIA terms.

The removal of the buildings and other infrastructure including the live electrical substation, conveyor at the extreme downstream end the proposed scheme footprint and the pipework associated with the pumping station, which are not considered to be of heritage value in themselves, will result in **no impact**. The grubbing out / excavation / diversion / capping of underground utilities as part of the demolition process prior to construction of the quay will disturb only made ground / reclaimed land, whilst the 20th century riverside pumping station will be recorded in advance of demolition in accordance with mitigation measures agreed through the landside planning application.

Direct (physical) impacts to potential submerged or buried archaeology may occur as a direct result of construction activities including:

- removal of the piles supporting the jetties and wharf and pipework feeding the pumping station;
- capital dredging (to deepen the northern half of the Tees Dock turning circle, a section of the existing approach channel and to create a berth pocket);
- construction of the new quay (to be set back into the riverbank); and

- placement of jack up feet/vessel anchors.

As the significance of potential archaeological remains cannot be known until such remains are encountered, each discovery would need to be considered on a case by case basis. Also, as discussed in **Section 16.4.4** above, the potential for buried/submerged archaeological material is significantly reduced by the historic reclamation and disturbance from previous dredging within the channel.

Buried archaeological remains within the area behind the proposed combi-wall for the proposed new quay are limited to post 1915 industrial uses of the site, although prehistoric deposits may survive beneath reclaimed materials, or within the river channel and intertidal areas. Planned geoarchaeological assessment of geotechnical boreholes and vibrocores will both facilitate current understanding of the nature of sub-surface deposits within the proposed development site, and consequently the potential for previously undiscovered prehistoric remains, and palaeoenvironmental material including potential peat deposits and buried land surfaces, and provide an appropriate record of such deposits and their geoarchaeological potential.

With regard to wreck or aircraft remains within the channel and intertidal areas, although there is limited potential for remains to be present, if such remains are encountered during dredging or during excavations associated with the construction of the proposed new quay and berth pocket, these could be of potentially high heritage significance (as a worst case).

If present, dredging within the turning circle and approach channel and dredging / excavation to create the berth pocket has the potential to have a medium or high magnitude of effect upon these types of remains, potentially resulting in a **moderate or major adverse** impact. As such, it is proposed that an archaeological reporting protocol is adopted to mitigate the potential impact on any as yet unidentified marine archaeological remains arising from construction activities. Ensuring that any new discoveries are quickly and efficiently reported and addressed through the protocol would result in a reduced residual impact, predicted to be of **minor adverse** significance. It is proposed that this protocol would be formalised in a Written Scheme of Investigation (WSI) which would be produced by a suitably qualified marine archaeological specialist.

Indirect physical impacts to heritage assets can occur if the proposed scheme also has the potential to directly and indirectly change the hydrodynamic and sedimentary process regimes, both locally and regionally. Changes in estuarine processes can lead to re-distribution of erosion and accretion patterns, while changes in tidal currents, for example, may affect the stability of nearby morphological and archaeological features. Indirect impacts to heritage assets may occur if buried heritage assets become exposed to marine processes, due to increased wave/tidal action for example, as these will deteriorate faster than those protected by sediment cover. Conversely, if increased sedimentation results in an exposed site becoming buried this may be considered a beneficial impact.

Potential effects upon the hydrodynamic and sedimentary regime are assessed in **Section 6**. With regard to effects during construction it is concluded that, other than within the dredged areas, sediment deposition on the river bed will be of very minor magnitude and that, where this occurs in the river channel or at jetties, it will subsequently be dredged as part of ongoing maintenance dredging regimes, whilst material deposited back into the newly dredged areas will be re-dredged during the capital works in order to achieve the desired design depths. During the demolition of the existing wharf and jetties, the spud legs of the jack-up barge, anchors of the vessels and bow thrusters of the vessels, as well as the pile removal activities themselves, will result in some disturbance to the existing estuary bed, but this will be minor and highly localised and not significant. Furthermore, as the new quay will be built from land, using predominantly land-based plant, with no construction activity in the river, there will be no impacts during construction of the quay on the

hydrodynamics and sedimentary regime of the Tees estuary. Consequently, there is no pathway for additional, indirect impacts to heritage assets associated with changes in sediment deposition, over and above the direct impacts associated with the construction of proposed scheme discussed above.

With regard to the setting of the Transporter Bridge during construction, the distance from the proposed scheme means that any noise or dust, for example, or activities associated with construction will be virtually indiscernible over and above existing industrial and navigation activities within this area of the River Tees. Furthermore, any changes to the setting during construction will be temporary and short term. Significant changes to the setting of the Transporter Bridge during construction, therefore, are not anticipated to occur.

## 16.6 Potential impacts during the operational phase

Any potential direct impacts to archaeology and cultural heritage are expected to occur during the construction phase and no additional direct impacts would occur during operation.

With regard to indirect physical impacts, the principal findings from the numerical hydrodynamic modelling undertaken in **Section 6** are:

- The proposed new quay alignment and capital dredging to deepen the Tees Dock turning circle and approach channel and to create a berth pocket will not significantly affect the existing baseline hydrodynamic conditions. Therefore, there will be **no impact** upon heritage assets.
- Reductions in baseline current speeds may lead to a slight increase in deposition of sediment:
  - in areas adjacent to the north bank opposite the quay, this will help the existing mudflat be sustained in light of sea level rise. This could be considered a **minor beneficial** impact to any buried archaeology within these mudflats (in maintaining ongoing burial rather than erosion and exposure), although there are no existing records of archaeological material from this area of the north bank; and,
  - in the main channel the deposition will require periodic dredging to maintain the design depths which would result in no additional impact over and above that assessed above for construction as impacts are expected to already have occurred during the capital dredge
- There is no measurable change caused by the capital dredging at the Tees Dock turning circle. Therefore, there will be **no impact** upon heritage assets;
- There is no predicted effect on local wind-generated waves at the site since the changes in hydrodynamics are so small and localised. Therefore, there will be **no impact** upon heritage assets;
- There are no estuary scale effects on baseline hydrodynamic conditions. Therefore, there will be **no impact** upon heritage assets;

Potential visual impacts from the proposed scheme are assessed in **Section 19**. Specifically, as requested by the MMO in their consultation response (**Table 16.2**), views of the Grade II\* Transporter Bridge have been assessed to determine the likely impact of the crane and other tall features in the proposal. Viewpoint 12 shows the view looking east from the Transporter Bridge viewing area and concludes that the likely magnitude of effect upon views will be low. Although the proposed quayside and associated ground level activity will not be visible, the heavy lifting cranes and temporary storage of two sets of full wind turbine towers will be visible. However, these will be set behind the middle-distance Teesside Bio Mass building that will substantially screen the northernmost crane and quayside components. Whilst the crane towers will appear lower than the biomass building, the steel lattice crane arms will extend higher into the skyline, although these visually 'lighter' structures will appear less prominent. It is concluded, therefore, that given the relative distance to the site and juxtaposition with the Teesside Bio Mass building the proposed scheme

will not incur significant adverse visual effects from this location, with proposed features appearing similar in character and visually integrating with existing industrial features.

Most importantly for the assessment of heritage setting, it is concluded for viewpoint 12 that, *the focus of the viewer is the view of the Tees Transporter Bridge and the existing character of those views will not be significantly affected*. Consequently, there will be **no impact** upon the heritage value of the bridge as a result from changes to its setting.