

REPORT

Boston Alternative Energy Facility - Preliminary Environmental Information Report

Chapter 8 Cultural Heritage

Client: Alternative Use Boston Projects Ltd

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Non-Technical Summary

This chapter considers the impact of the proposed Boston Alternative Energy Facility ('the Facility') upon cultural heritage within a 3 km Study Area. The baseline data was used to assess the significance of heritage assets within the area, how their setting affects their significance and how the Facility may impact upon these assets or their setting.

The chapter is supported by a Cultural Heritage Technical Report (**Appendix 8.1 Cultural Heritage Desk Based Assessment**) which provides all relevant baseline information regarding the heritage assets, their setting and predicted impacts. The chapter discusses both temporary and permanent impacts deemed significant under EIA regulations.

The baseline data indicated that the surrounding environs to the Application Site consist of thick alluvial clay deposits formed by water inundation throughout prehistoric and historic periods. There is evidence that these deposits can seal organic remains (peat) of early prehistoric date as well as enabling the preservation of other organic remains (e.g. wood, cloth, vegetation) which may have been deposited within the clay.

There are no designated assets within the Application Site. A total of six Listed Buildings are within 1 km, whilst four Scheduled Monuments and a further 22 Grade II* and I Listed structures are found within 3 km. Non-designated assets within 1 km are predominantly medieval to modern in date, mostly in the form of buried deposits associated with farmsteads. The most notable non-designated asset is the 'Roman Bank'. This extant earthwork passes through the centre of the Application Site, consisting of a c.2 m high earthen flood bank, currently undated, although research suggests it could be of Anglo-Saxon origin. A public right of way follows the length of the bank through the Application Site.

The site walkover results suggested that there are no (visible) wrecks within the section of The Haven to be affected by the Facility. Some foreshore structures were evident on the northern bank, but none on the wharf-side. This does not preclude their survival deeper within the mud bank.

The significance of impacts upon identified assets by the Facility was identified as **negligible** or **minor** following mitigation. These impacts were mostly in the form of changes of setting for designated assets, whilst a direct impact will be made upon a short section of the 'Roman Bank', and upon potential buried preserved organic remains and archaeological deposits within the central Application Site and within / adjacent to The Haven.



Proposed mitigation measures are mostly related to the construction phase and consist of archaeological evaluation and monitoring works to ensure any potential archaeological remains are preserved by record.

8 Cultural Heritage

8.1 Introduction

8.1.1 This chapter of the Preliminary Environmental Information Report (PEIR) describes the existing environment in relation to Cultural Heritage and provides the assessment of the potential impacts during the construction, operation and decommissioning phases of the Boston Alternative Energy Facility ('the Facility'). Mitigation measures are specified, and a discussion of the likely residual impacts following mitigation are provided where significant impacts were identified.

8.1.2 This chapter summarises the findings of the Cultural Heritage Desk Based Assessment (DBA) (**Appendix 8.1**), which compiles all baseline data and assesses how the setting of identified heritage assets affect their significance, along with what impact may be made upon the asset and its setting. Therefore, this chapter has been streamlined, summarising the baseline data results and detailing only potentially significant impacts to heritage assets.

8.1.3 This chapter and associated Appendix was prepared by Royal HaskoningDHV.

8.2 Legislation, Policy and Guidance

Legislation

8.2.1 The following are the national legislative requirements relevant to the Facility regarding the protection of nationally important heritage assets.

Ancient Monument and Archaeological Areas Act 1979

8.2.2 Under the terms of this Act (HMSO, 1979), an archaeological site or historic building of national importance can be designated as a Scheduled Monument and is registered with the Department of Culture, Media and Sport (DCMS). Any development that might affect either the Scheduled Monument or its setting is subject to the granting of Scheduled Monument Consent. This act is further supported by a Scheduled Monuments & Nationally important but non-scheduled monuments Policy Statement (DCMS, 2013) which sets out the Government's current policy on the identification, protection, conservation and investigation of nationally important ancient monuments.

Planning (Listed Building and Conservation Areas) Act 1990

8.2.3 Statutory protection for Listed Buildings and Conservation Areas, and their setting, is provided under the Planning (Listed Buildings and Conservation Areas) Act

(HMSO, 1990). A Listed Building is that which is seen to be of special architectural or historic interest and a Conservation Area comprises an area of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance.

8.2.4 A Listed Building may not be demolished, altered or extended in any manner which would affect its character without Listed Building Consent being granted. There are three grades of listing (in descending order):

- Grade I: buildings of exceptional interest;
- Grade II*: particularly important buildings of more than special interest; and
- Grade II: buildings of special interest, warranting every effort to preserve them.

8.2.5 Other legislation relevant to the historic environment is:

- The Treasure Act (HMSO, 1996);
- The Burial Act (1857); and
- The Hedgerow Regulations (HMSO, 1997).

8.2.6 However, the latter two pieces of legislation are unlikely to be of relevance to this project, because there are no historic hedgerows identified within the Application Site and there is considered to be very low potential for human skeletal remains to be found. The Treasure Act could come into effect if there is a chance find of artefacts of significant value during archaeological mitigation works, but this is also considered a very low probability.

National Policy

National Policy Statement for Energy (NPS)

8.2.7 This policy (specifically **EN-1 Overarching NPS for Energy** (DECC, 2011a) and **EN-3 National Policy Statement for Renewable Energy Infrastructure** (DECC, 2011b)) sets out the Government's policy for delivery of nationally significant energy infrastructure. **EN-1 Section 5.8** sets out the Government's stance on protecting the historic environment and assessing the impact of any new energy infrastructure. It states that in considering the impact of a proposed development on any heritage assets, the Planning Inspectorate should take into account the nature and significance of the assets and the value they hold. **EN-3 Section 2.5.34** also states that when considering any impact on the historic environment, the Planning Inspectorate should take into account the positive role that large-scale renewable projects play in the mitigation of climate change and delivery of energy security.

National Planning Policy Framework (NPPF)

8.2.8 The NPPF (MHCLG, 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 feeds 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), 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, they should recognise that heritage assets are "an irreplaceable resource and should be conserved in a manner appropriate to their significance" (paragraph 184).

Local Planning Policy

8.2.9 The South-East Lincolnshire Local Plan 2011-2036 was adopted on 8th March 2019 (South East Lincolnshire Joint Strategic Planning Committee, 2019). The historic environment section (Section 7.3) sets out the planning policies in place to protect and enhance the area's heritage. Specifically, Policy 29 states:

"To respect the historical legacy, varied character and appearance of South East Lincolnshire's historic environment, development proposals will conserve and enhance the character and appearance of designated and non-designated heritage assets, such as important known archaeology or that found during development, historic buildings, conservation areas, scheduled monuments, street patterns, streetscapes, landscapes, parks (including Registered Parks and Gardens), river frontages, structures and their settings through high-quality sensitive design."

8.2.10 Similarly, the policy states that development proposals will only be permitted where they will:

- Not materially harm the heritage value of an asset or its setting;
- Avoid detrimental fragmentation of management of the asset; and
- Secure long term future of the place.

8.2.11 Where a development proposal would affect the significance of a heritage asset (designated or non-designated), including any contribution made to its setting, it should be informed by proportionate historic environment assessment and evaluation.

8.2.12 Of note from the previous local plan (BBC, 1999), no longer in use, is the requirement that no impediment of view of St Botolph's church, known as 'Boston Stump':

"Planning permission will be granted for development provided it will not obstruct a public view of St Botolph's church, Boston or challenge the visual dominance of the church."

8.2.13 This is not part of the newly adopted Local Plan, but is still considered relevant for the Facility, due to the Stump's visual dominance within the local area.

Guidance

8.2.14 The following guidance (**Table 8.1**) was used to inform this chapter and associated Cultural Heritage DBA (**Appendix 8.1**). The work was also undertaken following guidance set out by the Chartered Institute for Archaeologists' (CIfA) *Standard and guidance for historic environment desk-based assessment* (CIfA, 2014).

Table 8.1 Historic Environment Guidance Referred to in the Production of this Chapter

Guidance	Relevance to assessment
The Historic Environment in Local Plans Historic Environment Good Practice Advice in Planning 1 (Historic England, 2015a)	This document details the procedures involved in the decision-making process for the historic environment at a local planning level, providing guidance for implementing the NPPF requirements in respect of the historic environment. Despite this being a DCO project, guidance within the document is relevant to ensuring data and documentation for the historic environment is of the standard required.
Managing Significance in Decision-Taking in the Historic Environment Historic Environment Good Practice Advice in Planning 2 (Historic England, 2015b)	This document provides advice and guidance on the assessing of significance for heritage assets, and how to understand the nature, extent and level of significance. It provides guidance on how to understand the impact of a proposed development on that significance and how to identify ways to avoid, minimise or mitigate that impact which meets the objectives of the NPPF.
The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning 3 (Historic England, 2017)	This document provides guidance on setting and development management, including on assessing the implications of development proposals. 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;

Guidance	Relevance to assessment
	<p>Step 2: assess whether, how and to what degree setting makes a positive contribution to the value of those heritage assets;</p> <p>Step 3: assess the effect of the proposed development on the significance of those assets as a result of changes to setting;</p> <p>Step 4: maximise enhancement and minimise harm; and</p> <p>Step 5: make and document decisions and monitor outcomes.</p>

8.3 Consultation

8.3.1 Consultation undertaken throughout the pre-application phase informed the approach and the information provided in this Chapter. A summary of the consultation relevant to Cultural Heritage is detailed in **Table 8.2**.

Table 8.2 Consultation and Responses

Consultee and Date	Response	Chapter Section Where Consultation Comment is Addressed
The Planning Inspectorate Scoping Opinion July 2018	<p>Direct impacts on buried archaeological remains during operation:</p> <p>The Scoping Report states that no physical impacts would occur on buried archaeological remains during operation. It is not clear from the information provided if this includes impacts from changes to groundwater, soils, or vibration associated with operation, should assets remain in situ following construction. The Inspectorate considers that there remains the potential for significant effects during operation of the Proposed Development if assets are retained in situ and does not agree to scope this matter out. Therefore, the ES should include an assessment of likely significant effects on retained buried remains during operation, if applicable.</p>	Section 8.7, Impact 1
	<p>Direct Impacts on above ground assets during operation:</p> <p>There is insufficient information regarding the baseline and the predicted impacts of the Proposed Development in the Scoping Report to support a decision to scope this matter out. The ES should include an assessment of likely significant effects on above ground assets during operation where they occur.</p>	Section 8.7, Impact 3

Consultee and Date	Response	Chapter Section Where Consultation Comment is Addressed
	<p>Baseline Data:</p> <p>The baseline assessment in the ES should be established using relevant data, to provide a robust basis for the assessment. Information should be sought from relevant consultation bodies where it is available, and the ES should clearly set out the baseline against which the assessment of effects has been made.</p>	<p>Sections 8.5, Section 8.6 and Appendix 8.1</p>
	<p>Sensitive Receptors:</p> <p>The Scoping Report identifies three key heritage constraints. The assessment in the ES should assess impacts to all relevant cultural heritage receptors where significant effects are likely to occur. The Applicant should make effort to agree the relevant cultural heritage receptors to include in the assessment with relevant consultation bodies.</p> <p>To aid the reader the ES should contain a figure depicting the location of the relevant cultural heritage receptors</p>	<p>Figure 8.1 and Appendix 8.1</p>
	<p>EIA Approaches, Surveys:</p> <p>The Inspectorate considers that surveys may be required to understand the significance of cultural heritage assets and fully assess the potential for significant effects. These may include geophysical surveys, foreshore inspection, and photography of views. The Applicant should make effort to agree the details of such survey with relevant consultation bodies and the approach to the assessment and methods applied should be fully described in the ES.</p>	<p>Section 8.6 and Appendix 8.1</p>
	<p>Mitigation measures:</p> <p>The ES must clearly describe the mitigation measures which form part of the Proposed Development and which address significant effects. The ES must set out the extent to which measures will be effective and how they are/will be secured in the DCO.</p>	<p>Section 8.8 and Appendix 8.1 Section 11</p>
	<p>Study Area:</p>	<p>Section 8.5.1</p>

Consultee and Date	Response	Chapter Section Where Consultation Comment is Addressed
	<p>The Scoping Report does not clearly state what the proposed study area is for the Proposed Development. The study area should be defined and justified in the ES. The study area should be sufficient to encompass the extent of the predicted likely significant effects, including those resulting from impacts to the setting of heritage assets i.e. by the use of an appropriate Zone of Theoretical Visibility. The Applicant should make effort to agree the study area with relevant consultation bodies. The study area should be depicted on a figure/figures within the ES.</p>	
<p>Historic England Scoping Response 4th July 2018</p>	<p>We [...] consider it essential that the EIA process is sufficiently detailed for it to assist in identifying how the proposed [works] might be delivered sustainably without having serious adverse effects on designated heritage assets.</p>	<p>Section 8.7 and Appendix 8.1</p>
	<p>EIA documentation to contain a thorough assessment of the likely effects which development might have upon those elements which contribute to the significance of heritage assets.</p>	<p>Appendix 8.1</p>
<p>Denise Drury, Senior Historic Environment Officer, Heritage Trust of Lincolnshire, Email discussions</p>	<p>Generally happy with the project's approach to Historic Environment. Will provide comment on review of the PEIR.</p>	<p>Section 8.4. Any comments received on the PEIR will be addressed in the ES</p>

8.4 Assessment Methodology

8.4.1 The following methodology for the Cultural Heritage Impact Assessment is applicable to the assessment of the construction, operational and decommissioning phases of the Facility. Parts of this approach differs to the methodology detailed in **Chapter 6 Approach to EIA** and are therefore described in detail below.

Sensitivity

8.4.2 The first stage of an impact assessment for the historic environment is to identify the key heritage assets which may be impacted. This is done initially through a desk-based baseline assessment (undertaken within the Cultural Heritage DBA; **Appendix 8.1**). Following further consideration including site visits and surveys, these assets are then given a sensitivity (or heritage significance/importance value), assigned broadly based on definitions and examples such as those tabulated below (**Table 8.3**).

8.4.3 Defining the significance of a heritage asset is achieved in part through professional judgment of its local, regional, national and international context, as well as considering the sum of all the values that make the asset important. This can be established by incorporating the evidential, archaeological, historic, aesthetic, architectural and communal heritage values of an asset. The evidence for some heritage assets, particularly non-designated buried archaeological remains, is often an incomplete picture due a lack of data on the remains (i.e. from a lack of intrusive investigations, ground truthing and associated reporting). Thus, the categories and definitions of importance (incorporating heritage significance) do not necessarily reflect a definitive level of importance of an asset. Where uncertainty occurs, the precautionary approach is to assign high importance (or significance); this is good practice in impact assessments which reduces the potential for impacts to be under-estimated. Judgements on heritage significance, therefore, should be regarded as providing a preliminary significance level based on available information.

Table 8.3 Definitions of Sensitivity (Importance), incorporating Heritage Significance

Sensitivity (Importance), incorporating Heritage Significance	
High (perceived International / National Importance)	For example: World Heritage Sites; Scheduled Monuments; Grade I, II* and II Listed Buildings or structures; Designated historic landscapes of outstanding interest; and Conservation Areas containing very important buildings. Assets of acknowledged international / national importance. Assets that can contribute significantly to acknowledged international / national research objectives.

Sensitivity (Importance), incorporating Heritage Significance	
	Significance is related to an outstanding level of evidential, archaeological, historic, aesthetic, architectural and communal heritage interest, or combination of these values.
Medium (perceived Regional Importance)	For example: 'Locally Listed' buildings or structures; Conservation Areas containing buildings that contribute significantly to its historic character; and Designated historic landscapes of special interest. Assets that contribute to regional research objectives. Assets with regional value, educational interest or cultural appreciation. Significance is related to a high level of evidential, archaeological, historic, aesthetic, architectural and communal heritage interest, or combination of these values.
Low (perceived Local Importance)	For example: Assets that contribute to local research objectives Assets with local value, educational interest or cultural appreciation. Assets that may be heavily compromised by poor preservation and/or poor contextual associations. Significance is related to a certain level of evidential, archaeological, historic, aesthetic, architectural and communal heritage interest, or combination of these values.
Negligible	For example: The nature, form, level of survival, condition or ability to appreciate the asset or similar, means that it cannot be assigned heritage asset status in its own right. Assets with no significant value or archaeological / historical interest.

Magnitude

8.4.4 The classification of the magnitude of effect (**Table 8.4**) on known heritage assets takes account of such factors as:

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

- 8.4.5 Both direct physical and indirect non-physical (e.g. visual, setting) impacts on heritage assets are considered relevant. Impacts may be adverse or beneficial. Depending on the nature of the impact and the duration of development, impacts can also be temporary and / or reversible or permanent and / or irreversible.
- 8.4.6 The finite nature of archaeological remains means that physical impacts are almost always adverse, permanent and irreversible; the ‘fabric’ of the asset and, hence, its potential to inform our historical understanding, will be removed.

Table 8.4 Definitions of Magnitude

Magnitude	Definition
High	Total loss of or substantial harm to an asset.
Moderate	Partial loss of, harm to or alteration of an asset which will affect its significance.
Low	Minor loss of or alteration to an asset which leave its current significance largely intact.
Negligible	Minor alteration to an asset which does not affect its significance in any notable way.
None / Nil	No alteration to an asset.

Impact Significance

- 8.4.7 Based on the sensitivity of the receptor and magnitude of the potential impact, the significance of the impact is determined according to the matrix presented in **Table 6.1 of Chapter 6 Approach to EIA**.
- 8.4.8 The significant impacts in EIA terms are those that are of **major, major / moderate** and **moderate adverse** significance. All other outcomes are not considered significant for the purpose of EIA assessment. 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 (or historic landscape).
- 8.4.9 Both direct physical and indirect non-physical (e.g. visual or setting) impacts on heritage assets are relevant and are assessed. Impact can be either adverse or beneficial to an asset, whilst the impact can be temporary and/or reversible or permanent and/or irreversible.
- 8.4.10 The potential for positive (beneficial) effects regarding the historic environment relates to the public value of the asset. Benefits can be in improving access to an asset or improving its setting. Similarly, benefits can occur through data gathering involved in the project which would increase public appreciation or understanding of the asset.

Cumulative Impact Assessment

- 8.4.11 For a general introduction to the methodology used for the CIA, please refer to **Chapter 6 Approach to EIA**. This chapter will focus on those cumulative impacts that are specific to Cultural Heritage.
- 8.4.12 The Cumulative Impact Assessment has taken account of current development taking place within the Study Area, as advised by the Planning Inspectorate within the Scoping Opinion. The Cumulative Impact Assessment has considered proposed developments within the local area which were identified by Boston Borough Council (BBC).
- 8.4.13 This section of the assessment will concentrate on any interactions between the Facility and these other developments.

Transboundary Impact Assessment

- 8.4.14 As the Facility is not located near to an international boundary, Transboundary Impact Assessment is not relevant to this chapter and not considered further.

8.5 Scope

Study Area

- 8.5.1 The Study Area is illustrated on **Figure 8.1**. For the purposes of this chapter, all Scheduled Monuments, Grade I and II* Listed Buildings and Conservation Areas within 3 km of the Facility are chosen for inclusion, as this gives the opportunity to easily identify any significant impacts the Facility may have on these major heritage assets (chiefly how setting and viewpoints to / from may be affected). Attention will be paid to assets of significant vertical dominance, as these will be more likely to have potential to 'compete' visually with the Facility.
- 8.5.2 All grades of Listed Building and all non-designated heritage assets (findspots, known buried remains from previous archaeological works, non-Listed Buildings of historical merit) were assessed within a 1 km buffer of the Facility.
- 8.5.3 The Zone of Theoretical Visibility (ZTV) results presented in **Chapter 9 Landscape and Visual Impact Assessment** of this PEIR were used to help inform which heritage assets may be affected. The ZTV results indicate the Facility would have no significant visual effects beyond 2 km with any notable visual effects being within 1 km. The ZTV figure was used to identify which heritage assets would have potential visibility of the Facility. These were then selected to take forward for setting assessment.

Data Sources

8.5.4 The assessment was undertaken with reference to several sources provided in **Table 8.5**. These sources include data on designated heritage assets (Listed Buildings, Scheduled Monuments, designated wrecks), non-designated heritage assets (archaeological features, findspots, Conservation Areas, recorded ship losses and other wrecks) as well as information on previous archaeological mitigation works (archaeological surveys, watching briefs, evaluations and excavations).

Table 8.5 Key Information Sources

Data Source	Details
Records of non-designated heritage assets from the Lincolnshire Historic Environment Record (LHER)	Data as pdf. Reports and GIS files obtained from Lincolnshire County Council (LCC)
National Heritage List for England (NLHE)	Accessible at: https://historicengland.org.uk/listing/the-list/
Records of heritage assets and archaeological works from ARCHSEARCH Online	Accessible at: http://archaeologydataservice.ac.uk/archsearch/basic.xhtml
The Lincolnshire Historic Landscape Characterisation	https://www.lincolnshire.gov.uk/residents/environment-and-planning/conservation/archaeology/lincolnshire-historic-landscape-characterisation-project/70142.article
Historic Mapping	Accessible at: https://maps.nls.uk/

Baseline Conditions

8.5.5 The baseline data forming part of this chapter (i.e. as detailed in the Cultural Heritage DBA, **Appendix 8.1**) were compiled through collation of data within a 3 km buffer of the Facility, identified from the sources described in **Table 8.5**. All data were mapped in GIS and a gazetteer of all heritage assets within the Study Area was produced, as well as Figures mapped with all known heritage assets (**Figure 8.1**, **Figure A8.1** and **Figure A8.2**). These data include all known designated and non-designated assets, as well as potential assets that may be within the Application Site (e.g. buried archaeological remains).

Walkover Survey

8.5.6 Following the compilation of the historical and archaeological baseline, a site walkover covering the Application Site was conducted to assess for any visible evidence of unknown heritage assets within the Application Site, as well as any modern disturbance that may have impacted the area. Furthermore, heritage assets identified as possibly being impacted were also visited to assess their

setting and identify if the construction and operation of the Facility would impact on these assets or their setting.

Assumptions and Limitations

- 8.5.7 The LHER is not a complete record because it relies on non-designated assets being recorded and reported. The amount of records within the LHER depends upon how much archaeological work and surveys have been done in an area and whether findspots have been reported. Similarly, unknown heritage assets are being found regularly, during new developments or from new local research. As such, the LHER is not a final record and does not preclude further assets being found in the future.
- 8.5.8 Where the extent of archaeological deposits is unknown, impact was assessed on the potential for well-preserved deposits. This was based on appraisal of the site conditions for preservation, evidence from previous surveys in the area and evidence within the baseline assessment of other similar locations within the vicinity.
- 8.5.9 Assessing the potential impacts upon views or setting of an asset was not undertaken from The Haven, instead being assessed from the banks of the river.
- 8.5.10 Heritage stakeholders consulted as part of the scoping process were in agreement with the assessment methodology adopted, notwithstanding the above limitations (**Section 8.3**).

8.6 Baseline Conditions

- 8.6.1 This section summarises the baseline conditions against which impacts were assessed. A full assessment of baseline data, all heritage assets and assessment of the key heritage assets' setting can be found in **Appendix 8.1**. The below section describes the heritage assets which were identified as key assets for this project.

Topography and Geology

- 8.6.2 The Application Site is situated in Skirbeck Quarter, 2.3 km to the south-east of Boston's historic core, directly west of the River Witham and south of Boston Port. The Application Site is situated at approximately 3 m above Ordnance Datum (aOD) and the British Geological Survey (BGS, 2018) records Upper Jurassic Amphthill clay overlain by glacial till deposits within the area. This till is in turn overlain by thick alluvial clays, formed by marine inundations prior to fenland reclamation in the medieval period. Peat layers dated to the middle Neolithic period were found at a depth of 5 to 11 m below the current ground surface,

overlain by and interleaved in these alluvial deposits (**Appendix 8.1**).

Key Heritage Assets

- 8.6.3 The following is a summary of the key heritage assets (**Figure 8.1**) that were identified as having the greatest potential to be impacted by the Facility. This was done through a comparison of the ZTV and the location of designated heritage assets, as well as identification of potential or known non-designated heritage assets in the vicinity. Again, a comprehensive assessment of the assets and their setting is found in the supporting Cultural Heritage DBA (**Appendix 8.1**).
- 8.6.4 No designated heritage assets are within the Application Site. A total of six Listed Buildings are within 1 km, whilst four Scheduled Monuments and a further 22 Grade II* and I listed structures are found within 3 km. Non-designated assets within 1 km are predominantly medieval to modern in date, in the form of buried deposits associated with farmsteads. The most significant non-designated asset in terms of the development is the 'Roman Bank'. This extant, currently poorly dated (through documentary evidence), earthwork passes through the centre of the Application Site, consisting of a c.2 m high earthen flood bank. Documentary research suggests it could be of Anglo-Saxon origin, although no archaeological evidence has been found for this within the local area. A public right of way follows the top of Roman Bank.
- 8.6.5 **Wybert's Castle** (Reference RHDHV01 in the **Appendix 8.1**): This Scheduled Monument consists of a medieval moated site covering approximately 200 m². The central island inside the moat is raised above the surrounding land. Excavations in 1959-60 found evidence for 12th to 13th century occupation. As a Scheduled Monument with significant research value, this asset is deemed to be of **high** value.
- 8.6.6 **St Botolph's Church** (RHDHV26): This Grade I Listed church is a landmark for the region, dominating views in the vast fenland surrounding Boston. The church tower is the tallest parish church tower in England and was built in the 14th century. The tower is known as the 'Boston Stump' and is of significant local and regional historical importance. As a Grade I Listed Building of regional and national importance, this asset is deemed to be of **high** value.
- 8.6.7 **Church of St Nicholas, Skirbeck** (RHDHV07): This Grade II* Listed church has 13th century origins. It is at a prominent position on the northern bank of The Haven, at its junction with Maud Foster Drain. The church can be seen from some distance along the banks of The Haven. It is probable that it would have been a navigation marker in the past, used in conjunction with St Botolph's Church tower (RHDHV26). Due to it being a historical landmark and of architectural interest, the

significance of this asset is deemed to be **high**.

- 8.6.8 **Skirbeck Conservation Area** (RHDHV31): Designated in 1969, the area covers St Nicholas' Church and churchyard, Skirbeck Hall and grounds, 80-86 Fishtoft Road, and extends to The Haven's foreshore, including Maud Foster Sluice (RHDHV07). Modern developments in and around Skirbeck Hall have reduced the area's historic character, with the residential development not being particularly sensitive to the historic architecture. Views out of the Conservation Area across The Haven are limited by tree cover along Fishtoft Road, although wide-reaching views can be made from behind the church. Due to the impacts of modern development upon the character of the Conservation Area, this is a **medium** value asset.
- 8.6.9 **Maud Foster Sluice** (RHDHV06): This mid-19th century sluice is located at the southern end of Maud Foster Drain, which exits into The Haven. It is constructed of Gritstone with three elliptical archways. The structure is Grade II Listed. Due to this designation and its location within Skirbeck Conservation Area, it is deemed to be of **high** significance.
- 8.6.10 **Slippery Gowt Sluice** (RHDHV05): this is a well-preserved example of an early modern sluice that is Grade II Listed, designating it as a structure of special architectural and historical significance and so deemed to be of **high** significance. The Sluice was constructed in the mid-18th century, for the Court of Sewers, and built of red brick. It is currently situated south of the historic Boston landfill, with views southwards across open farmland.
- 8.6.11 **Wyberton Conservation Area** (RHDHV33): The Church of St Leodegar and Wyberton Park fall within the Wyberton Conservation Area. This area has a distinctly English country village characteristic, with a focal point of the church and lack of major development within the core adding to an appreciable historic setting. It is deemed to be of **medium** significance.
- 8.6.12 **The Roman Bank** (RHDHV65): This long running section of earthwork survives for approximately 4 km, heading south-eastwards from Boston and passes through the Application Site. The bank is also associated with a known bank that can be traced extending into Norfolk, forming an early sea wall. A section of comparable bank is also evident on the northern side of The Haven. This asset is non-designated and considered to be of local historical and archaeological interest. The asset's date of origin is currently unclear, although if an Anglo-Saxon or medieval date could be confirmed it may be a significant heritage asset for the local region and provide further information for these poorly understood early flood defences. As a non-designated upstanding earthwork, it is deemed to be of

medium significance.

- 8.6.13 **Prehistoric peat and historic alluvium (RHDHV66)**: Evidence for prehistoric peat deposits was identified within the vicinity, during works for the Boston Barrier project. These were found at approximately 8 m below the current ground surface, overlain by alluvial clay deposits deposited over the past five millennia through marine inundation. These alluvial deposits were also encountered during archaeological evaluation for the adjacent Boston 1 facility. No remains of archaeological significance have currently been identified within the alluvium, but this does not preclude their presence. This alluvial build up is evident throughout the local area, seen within the deposit mapping undertaken as part of the technical report (**Appendix 8.1, Section 7**), where all boreholes reviewed showed the local geology is made up of anywhere from 5 m to 11 m of alluvium. It is evident that these deposits could be within the Application Site and they could contain preserved archaeological remains (RHDHV96, see below). This asset has a potentially **high** significance.
- 8.6.14 **The Haven mud banks (RHDHV90)**: These mudbanks were noted on either side of The Haven's channel during low tide and are far reaching, continuing along The Haven towards the Wash. They form an integral part to the channel, and the wider area's historic landscape character. No foreshore remains (RHDHV91, see below) were seen during the site visit on the southern bank, but the anaerobic conditions of the banks would aid in the preservation of organic remains, similar to the known alluvial deposits within the area (RHDHV66). This asset has a **low** significance although has the potential to contain foreshore remains (RHDHV91) of **high** significance.
- 8.6.15 **Potential foreshore remains (RHDHV91)**: The only foreshore remains identified during the site visit were a grouping of stakes within the mudbanks on The Haven's southern bank. A date for these remains is unknown, although a brief visual inspection indicated they were not of particular age. It is evidence for the preservation quality of the mudbanks however, suggesting that it is possible that remains of archaeological merit could survive within the lower layers of The Haven's mudbanks and the lower alluvial deposits. These potential assets are of potentially **high** significance.
- 8.6.16 **Buried archaeological remains (RHDHV96)**: This 'asset' encompasses a number of possible archaeological remains that could be found within the Application Site, and cross-references with the prehistoric peat deposits, historic alluvial deposits and foreshore remains (RHDHV66 and RHDHV91). Any possible buried remains within the Application Site, in the form of either preserved material within the alluvium, or features cut into the alluvium, such as infilled ditches, could

be impacted by piling or open-cut excavation of a depth deeper than the overlying topsoil. The remains potentially within alluvial deposits could range from natural organic remains of geoarchaeological interest (peat deposits, natural wood, etc.) to the remains of any hulks that could survive in the original route of The Haven. This asset has potentially **high** significance.

Anticipated Evolution of the Baseline Condition

8.6.17 If the development were not to take place, it is expected that potential archaeological remains within the Application Site would stay in a stable preservation state. Erosion of The Haven tidal mud flats would continue to occur through scouring, which may result in erosion of deposits and finds of archaeological significance within the channel.

8.6.18 Changes to the setting of heritage assets could still occur, with other projects being undertaken within the region. In particular, the Roman Bank will continue to be impacted by further industrial development within the industrial estate.

8.7 Impact Assessment Summary

8.7.1 The sections below summarise the identified potential impacts on designated and non-designated heritage assets as a result of the Facility. For a full assessment and discussion of each identified key heritage asset's setting, significance and impacts upon them please see the Cultural Heritage Technical Report (**Appendix 8.1**).

8.7.2 The identified impacts for the Facility are:

- **Impact 1:** Direct impact to potential buried archaeological remains;
- **Impact 2:** Indirect impact upon setting of designated heritage assets;
- **Impact 3:** Direct impact upon above ground heritage assets; and
- **Impact 4:** Indirect impact upon setting of recorded non-designated assets.

8.7.3 Potential impacts as a result of changes to physical process (e.g. changes in sedimentation/erosion within The Haven) were assessed and correlated with **Chapter 16 Estuarine Processes**. No impact/change in the baseline was identified in **Chapter 16 Estuarine Processes**, due to the current estuarine environment, and so is not considered further in this chapter (this is further discussed in Impact 1B).

8.7.4 The identified impacts are discussed below, asset by asset, in detail for construction phase, with additional assessment of operation and

decommissioning also identified. All predicted impacts upon each asset are summarised within **Table 8.10** at the end of this chapter.

Embedded Mitigation

- 8.7.5 As part of the project design, several embedded mitigation measures have been proposed to reduce potential impacts on cultural heritage. These measures are considered standard industry practice for this type of the development.
- 8.7.6 Current design of the Facility indicates that the structure's visual impact will be reduced through the use of standard profile cladding on external walls, with a muted colour palette. All potentially odorous elements of the Facility will be enclosed or contained, and Facility buildings will operate under negative pressure, reducing any impact by odour on the setting of any assets. Furthermore, lighting within the grounds of the Facility will be designed to a specification which will minimise the visual impact of the Facility during the evening and night (see **Chapter 5 Project Description**). This will be confirmed as part of the final detailed design, in consultation with stakeholders. Best practice construction methodology will be applied to minimise noise during the construction phase, in accordance with British Standard (BS):5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' (see **Chapter 10 Noise and Vibration**).

Worst Case

- 8.7.7 This section establishes the Worst-Case Scenario (WCS) for the construction of the wharf and Facility, forming the basis for the subsequent impact assessment.
- 8.7.8 Full details of the range of development options being considered are provided within **Chapter 5 Project Description**.
- 8.7.9 For the purpose of the Cultural Heritage chapter, only those design parameters with the potential to influence the impact of known and potential heritage assets are identified. Therefore, if the design parameter is not described below in **Table 8.6**, it is not considered to have a material bearing on the outcome of this assessment.

Table 8.6 Worst Case Assumptions

Impact	Parameter
Construction	
Impacts related to proposed wharf	<ul style="list-style-type: none"> • Earthworks relating to wharf construction (across 350-400 m). Involves excavation and replacement of The Haven's flood bank and dredging of the waterway to create the berthing pocket for the wharf. • Construction of c. 300 piles to 15-20 m deep

Impact	Parameter
	<ul style="list-style-type: none"> Dredging of The Haven Total wharf footprint approximately 35,000 m²
Impacts related to main Facility	<ul style="list-style-type: none"> Construction of piles c. 15-20 m deep Construction of RDF Storage Areas Groundwork for conveyor belt Construction of three chimney stacks currently with a working height of 70 m (this height will be subject to further sensitivity testing at the ES stage) Total Facility footprint approximately 234,000 m²
Impacts related to infrastructure	<ul style="list-style-type: none"> Groundworks for installation of further buildings, roads and associated services. Temporary work areas (compounds)
Operation	
Wharf	<ul style="list-style-type: none"> Potential scouring/silting Additional lighting during evening/night Noise Increased shipping traffic Maintenance dredging of the Haven around wharf Changes in water table from piling affecting preservation of organic remains
Facility	<ul style="list-style-type: none"> Additional lighting during evening/night Noise Changes in water table from piling affecting preservation of organic remains
Decommissioning	
Demolition of Facility	<ul style="list-style-type: none"> Demolition and associated ground works Change of viewpoints within area Removal of piles, disturbance of surrounding deposits.

8.8 Potential Impacts during Construction

Impact 1: Direct Impact on (Permanent Change to) potential buried archaeological remains

8.8.1 These remains consist of the prehistoric peat and historic alluvial deposits, tidal mudflats, potential foreshore remains (RHDHV66, RHDHV90 and RHDHV91 **Figure 8.1**) and potential buried archaeological remains (RHDHV96). Without further investigation, these potential archaeological remains should be regarded as being of high heritage importance (as a WCS), as a precautionary approach which is standard practice for impact assessments.

- 8.8.2 The construction of the Facility may result in impacts on buried remains, if present, through their removal via groundworks and installation of piles associated with the wharf and main Facility.
- 8.8.3 Mitigation is discussed for each heritage asset separately, but an overall mitigation strategy for the project is discussed within the Cultural Heritage DBA and summarised in **Table 8.11**. Methodologies for this work will be detailed within a Written Scheme of Investigation (WSI), covering all archaeological works (on-shore and marine), which will be produced following consultation with stakeholders. A draft will be produced at the appropriate project stage and agreed between Historic England, the LPA and Alternative Use Boston Projects Ltd. (the Applicant). Any marine archaeology works will follow standards and Model Clauses associated with Marine Archaeology WSI's (Wessex Archaeology, 2010).

Impact 1A. Prehistoric peat deposits and historic alluvium (RHDHV66): non-designated asset, 500 m north-west

- 8.8.4 Evidence for prehistoric peat deposits was identified within the locality during works for the Boston Barrier project. These were found at approximately 8 m below the current ground surface, overlain by alluvial clay deposits deposited over the past five millennia through marine inundation. These alluvial deposits were also encountered during archaeological evaluation as part of Boston 1. No remains of archaeological significance have currently been identified within the alluvium, but this does not preclude their presence. This alluvial build up is evident throughout the local area, seen within the deposit mapping undertaken as part of the Cultural Heritage DBA (**Appendix 8.1, Section A8.7**), where all boreholes reviewed showed the local geology is made up of anywhere from 5 m to 11 m of alluvium. There is high potential, therefore, for these deposits to also be present within the Facility footprint and that these deposits could contain preserved palaeoenvironmental remains (RHDHV96, see below).
- 8.8.5 Impact upon these potential palaeoenvironmental remains could be made during the construction of the Facility and wharf, through the installation of piles to form the foundations of both. The current depth of these piles is estimated to be 15 to 20 m deep. These piles will have a limited footprint relative to the spread and depth of the alluvial deposits and any possible peat, but there is still potential for impact. A further possible impact may arise due to changes in water level as a result of piling. Piling can cause changes to site hydrology, potentially lowering the water table and damaging waterlogged deposits. Changes to hydrogeology were assessed in **Chapter 11 Contaminated Land, Land Use and Hydrogeology** (Impact 3: Impact on Groundwater Quantity), which also identified mitigation measures.

Magnitude of Impact

8.8.6 It is deemed that the Facility could result in a **high** magnitude of impact upon any palaeoenvironmental remains which may be present within these deposits. This is due to the damage and/or disturbance that could be caused through piling and changes in hydrogeology causing changes in preservation of the remains. This impact would be mostly localised around the piles and pile caps.

Heritage Significance (Sensitivity)

8.8.7 These palaeoenvironmental remains have the potential to be of **high** significance, with the potential to contribute to an understanding of the development of prehistoric and historic environments around Boston.

Significance of Effect

8.8.8 On a professional judgement, as the remains may be permanently destroyed or damaged, it is deemed that the development could have a **permanent major adverse effect** upon palaeoenvironmental remains which may be present within these deposits.

Mitigation Measures

8.8.9 Proposed mitigation measures for buried remains of geoarchaeological interest would consist of phases of on-site monitoring and archaeological recording. These should be undertaken from the design phase of the project onwards:

- Geoarchaeological assessment of any ground investigation works undertaken as part of the development;
- Dependant on the results of geoarchaeological assessment, a phase of archaeological trial trenching should be implemented across the site; and
- Archaeological monitoring of piling, or excavation of pile caps should be employed to record any further remains revealed during the works.

Residual Impacts

8.8.10 Following the implementation of the mitigation, any potential geoarchaeological remains will be preserved by record and thus the residual impact would be **minor adverse (not significant)**, whilst furthering understanding of Boston's history can be seen as beneficial.

Impact 1B. The Haven Mudbanks (RHDHV90): non-designated asset.

8.8.11 These mudbanks were noted on either side of The Haven's channel during low tide and are far reaching, continuing along The Haven towards The Wash. They

form an integral part to the channel, and the wider area's historic landscape character. No foreshore remains (RHDHV91: see below) were seen during the site visit on the southern bank, but the anaerobic conditions of the banks could aid in the preservation of palaeoenvironmental remains and organic archaeological material, similar to the potential alluvial deposits within the area (RHDHV66). These mudbanks change over time, increasing in depth and also being eroded by the fluvial action of water released from the Maud Foster Sluice.

- 8.8.12 A c. 400 m section of the mudbanks on the southern bank of The Haven may be removed/dredged during the construction of the berthing pocket for the wharf. Similarly, there is potential for changes to sediment transport during the construction of the wharf which could affect preservation of remains within the mudbanks. However, it is identified in **Chapter 16 Estuarine Processes** that there will be no impact from scouring due to current baseline estuarine processes and so this impact is not considered further.

Magnitude of Impact

- 8.8.13 The development could have a **high** magnitude of impact upon geoarchaeological or archaeological remains within the mudbanks, due to the potential dredging and/or excavation of a 400 m section for construction of the wharf.

Heritage Significance (Sensitivity)

- 8.8.14 These mudbanks form an integral part of The Haven's historic character, but do not add to our particular understanding of the local area's history, and as such are of **low** significance, although potential archaeological remains preserved within them could be of **high** significance (see **Impact 1C**, below).

Significance of Effect

- 8.8.15 The predicted impact of the Facility, given the magnitude of the impact and the significance of the asset, is deemed to be of permanent **moderate adverse** significance due to the removal of the mudbanks within the wharf area. Impacts upon preserved archaeological remains within the mudbanks would, however, be **major adverse** (see **Impacts 1C** and **1D**, below).

Mitigation Measures

- 8.8.16 Mitigation measures for this asset will also correlate with measures taken for the other (potential) buried remains. These are:
- Mitigation in the form of recording any preserved foreshore remains (RHDHV91, see below) would also record depths of mudbank material that is preserving them.

Residual Impacts

8.8.17 Following implementation of the mitigation (preservation by record), the residual impact can be considered **minor adverse (not significant)**.

Impact 1C. Foreshore remains (RHDHV91): non-designated asset.

8.8.18 The only foreshore remains identified during the site visit were a grouping of stakes within the mudbanks on The Haven's northern bank. A date for these remains is unknown, although a brief visual inspection indicated they were not of significant age. It is evidence for the preservation quality of the mudbanks however, suggesting possible remains of archaeological merit could survive within the lower layers of The Haven's mudbanks and the lower alluvial deposits, such as hulk wrecks or posts relating to earlier quays. These may have to be removed during construction of the wharf.

Magnitude of Impact

8.8.19 The Facility may have a **high** magnitude of impact upon these potential remains, with construction works around the wharf removing them if they are present, either partially or wholly.

Heritage Significance (Sensitivity)

8.8.20 Any potential foreshore remains could have a **high** significance, particularly if associated with the remains of a wreck.

Significance of Effect

8.8.21 Judging the heritage significance and magnitude of impact, the impact of the development could be **major adverse** to these potential remains.

Mitigation Measures

8.8.22 Mitigation measures for these remains would take the form of ensuring archaeological recording of them prior to removal. Initially this would require:

- Archaeological assessment of any geophysical survey undertaken of The Haven; and
- Archaeological monitoring of wharf construction, allowing for any remains that are found to be recorded *in-situ*, undertaken as specified in the agreed WSI. A report would be produced, allowing dissemination of the results.

Residual Impacts

8.8.23 As any potential foreshore remains will have been preserved by record through the proposed mitigation, it is deemed that the residual impact is **minor adverse**

(not significant).

Impact 1D. Buried Archaeological Features (RHDHV96): non-designated asset.

8.8.24 This entry encompasses potential archaeological remains that could be found within the Application Site, and cross-references with the prehistoric peat deposits, historic alluvial deposits and foreshore remains (RHDHV66 and RHDHV91).

8.8.25 Any possible buried remains within the Application Site, in the form of either preserved material within the alluvium, or features cut into the alluvium, such as infilled ditches, may be impacted by piling or open-cut excavation of a depth deeper than the overlying topsoil. The remains potentially within alluvial deposits could range from natural organic remains of geoarchaeological interest (peat deposits, natural wood *etc.*) to chance finds or the remains of any hulks that could survive in the original route of the river. Again, these may be impacted by piling during construction, and any deeper open-cuts that excavated through the alluvium.

Magnitude of Impact

8.8.26 The Facility may have a **high** magnitude of impact upon these deposits, with groundworks impacting on any potential buried deposits in the form of chance finds, archaeological features (ditches, pits *etc.*) or any other features or finds potentially buried within the area.

Heritage Significance (Sensitivity)

8.8.27 These buried remains have the potential to be of **high** significance, dependant on their form and preservation.

Significance of Effect

8.8.28 The significance of impact is expected to be a permanent **major adverse** impact upon the potential buried remains.

Mitigation Measures

8.8.29 Current design for the project indicates that the land may have to be built up by c.0.5 m prior to construction. Topsoil is likely to be stripped before this raising of the surface, but once built up, any archaeological remains would be preserved *in-situ*.

8.8.30 A number of phases of archaeological evaluation, excavation and recording could be implemented to evaluate if any remains are present and record them prior to potential damage. These phases would be:

- Geoarchaeological monitoring and analysis of any ground investigation works undertaken as part of this project;
- Dependant on the results of geoarchaeological analysis, a phase of geophysical survey and archaeological trial trenching, followed by excavation, if required, could be undertaken;
- Public dissemination of the results of the archaeological works would inform the general public about the findings and improve their knowledge of their local area's history; and
- Archaeological monitoring of piling, or excavation of pile caps could be employed to record any further remains revealed during piling.

Residual Impacts

8.8.31 As any potential archaeological remains would be identified, excavated and recorded through the identified mitigation measures and so preserved by record, it is deemed that the residual impact is **minor adverse (not significant)**.

Impact 2: Indirect Impact upon Setting of Designated Heritage Assets

8.8.32 Potential indirect impacts upon each identified key asset are outlined and discussed separately, below. In summary, these impacts are in the form of view-change which may affect appreciation of certain assets, although many of the views and setting are already impacted by the current industrial units within the vicinity of the Facility. Overall, the construction phase could result in a temporary **negligible** or **minor adverse** impact upon the setting of the key designated heritage assets identified as part of the baseline assessment.

Impact 2A. Wybert's Castle (RHDHV01): Scheduled Monument, 1.2 km south-west.

8.8.33 This monument consists of a medieval moated site, east of Wyberton's historic core. Occupation was during the 12th and 13th centuries and the surviving remains consist of a moat and internal island which stands proud of the surrounding landscape. No direct physical impact will be made upon the monument, but an indirect impact could be made upon its setting, with views from the monument changing during construction. Similarly, increases in noise are potentially an issue also affecting its setting.

Magnitude of Impact

8.8.34 The development could have a **negligible** magnitude of impact upon the asset, principally due to changes in its setting through view-changes and additional potential noise.

Heritage Significance (Sensitivity)

8.8.35 The monument is a well-preserved example of a large moated manor site, and has a moderate presence within the wider, flat, landscape and is of **high** heritage significance.

Significance of Effect

8.8.36 The significance of impact is expected to be a **minor adverse** effect upon the setting of this asset.

Mitigation Measures

8.8.37 Good construction practices employed by contractors on-site and use of core working hours will reduce potential noise issues within the area.

Residual Impacts

8.8.38 With good construction practices in place, impacts on the asset's setting will stay **minor adverse (not significant)**.

Impact 2B. St Botolph's Church, Boston (RHDHV26): Grade I Listed Building, 2.5 km north-west.

8.8.39 St Botolph's Church is located in central Boston, at quite some distance from the Facility. This asset is Grade I designated and is a landmark for the region, visible from great distance, and used as a landmark from the Wash. Similarly, views from the top of the tower, which is the tallest parish church tower in the country, are far reaching.

Magnitude of Impact

8.8.40 The development may have a **negligible** impact upon the asset, principally due to a minor change to views from the top of the tower. The location of the Facility is barely visible, with the eye drawn to the large pylons within the area, which are located in the mid-ground of the wide panoramic views of Boston. No views were found where any of the development construction would completely block views to the church tower. Similarly, groundworks would not be especially visible from the top of the tower.

Heritage Significance (Sensitivity)

8.8.41 St Botolph's Church is a building with major historical and architectural significance for the region, forming one of the main landmarks within Boston. Because of this, the church is of **high** heritage significance.

Significance of effect

8.8.42 The potential change in views from the top of the tower are deemed to be a temporary **minor adverse** effect upon the asset.

Mitigation Measures

8.8.43 Standard/good construction practices and working hours will ensure limited impact during construction works.

Residual Impacts

8.8.44 The residual impact of the development when mitigation measures are considered is deemed to be **minor adverse (not significant)** and temporary.

Impact 2C. Parish Church of St Nicholas, Skirbeck (RHDHV07): Grade II* Listed Building, 900m north-east.

8.8.45 The Church of St Nicholas is located north-east of the Facility, on the northern bank of The Haven. It is a Grade II* Listed Building and is within Skirbeck Conservation Area. The church's setting is quite tightly confined within its churchyard, although arguably when you exit the churchyard to the south onto The Haven's northern bank you are still within its influence and also have views downriver.

Magnitude of Impact

8.8.46 The Facility may have a **negligible** impact upon the asset, with changes in views from the south of it affecting its setting and the potential for additional noise during construction.

Heritage Significance (Sensitivity)

8.8.47 This church forms the centre of Skirbeck's historic core and Conservation Area and its setting adds to its significance. It is deemed to be of **high** heritage significance.

Significance of Effect

8.8.48 The change in views from the southern side of the church and potential for increased noise is deemed to be a **minor adverse** significance upon the church and its setting.

Mitigation Measures

8.8.49 Construction work undertaken to best practices will reduce the impact of change

to the church's setting. Similarly, working hours will be decided by the Borough Council and will reduce changes to the church's setting outside of these working hours.

Residual Impacts

8.8.50 Impact upon the setting of the church, deemed to stay at **minor adverse (not significant)**, due to the restricted visibility of the wharf construction from within the setting of the church.

Impact 2D. Maud Foster Sluice (RHDHV06): Grade II Listed Building 700 m south-east.

8.8.51 This mid-19th century Sluice is located at the southern end of Maud Foster Drain, which exits into The Haven. It is constructed of Gritstone with three elliptical archways.

Magnitude of Impact

8.8.52 It is possible that construction works would be visible from the sluice, although the current setting would suggest there can be little appreciation of the asset gained. Because of this it is deemed there could be a **negligible** impact upon this asset.

Heritage Significance (Sensitivity)

8.8.53 The structure is Grade II and a good example of early modern water management. As such it is of **high** heritage significance.

Significance of Effect

8.8.54 The effect upon the heritage asset's setting is deemed to be of **minor adverse** significance.

Mitigation Measures

8.8.55 Construction best practices and working hours governed by the Borough Council will reduce any impact upon appreciation of the asset and its setting. Embedded mitigation in the construction design will also mitigate the impact.

Residual Impacts

8.8.56 Impact upon the setting of the asset, when mitigation measures are taken into account, is deemed to be a **minor adverse (not significant)** effect.

Impact 2E. Slippery Gowt Sluice (RHDHV05): Grade II Listed Building, 700m south-east.

8.8.57 This asset is a well-preserved example of an early modern sluice that is Grade II Listed, designating it as a structure of special architectural and historical significance. The Sluice was constructed in the mid-18th century, for the Court of

Sewers, and built of red brick.

Magnitude of Impact

8.8.58 The possible impact upon this asset's setting is predicted to be **negligible**, with a change in views and potential for construction noise when walking down the footpath after leaving the asset. No change to views from the asset itself will be affected.

Heritage Significance (Sensitivity)

8.8.59 Due to it being an important part of Boston's early modern history, this asset is deemed to be of **high** significance.

Significance of Effect

8.8.60 The effect upon the heritage asset's setting is deemed to be of **minor adverse** significance.

Mitigation Measures

8.8.61 Again, construction best practices and working to core hours (reducing impact outside of these hours) will reduce any impact to the asset and its setting.

Residual Impacts

8.8.62 Impact upon the setting of the asset, when mitigation measures are taken into account, is deemed to be a **minor adverse (not significant)** effect.

Impact 2F. Skirbeck Conservation Area (RHDHV31), 900m north-east.

8.8.63 This Conservation Area's (RHDHV31) current character and setting is centred around St Nicholas' Church, and is quite tightly defined. Several issues have been identified which are detrimental to the Conservation Area's wider setting and character (unsympathetic modern building and infrastructure designs).

Magnitude of Impact

8.8.64 Any possible impact upon the Conservation Area is principally from a change in views; views which are the same as those identified as part of the St Nicholas' Church impact assessment. In correlation with that assessment, it is deemed there may be a **low** impact upon its setting.

Heritage Significance (Sensitivity)

8.8.65 As the Conservation Area's character has been altered by modern development, the heritage asset is perceived as being of **medium** significance.

Significance of Effect

8.8.66 The change in views from the southern side of the Conservation Area are considered to be a **minor adverse** effect upon the church and its setting.

Mitigation Measures

8.8.67 Core working hours and construction best practices will reduce any impact upon the Conservation Area.

Residual Impacts

8.8.68 Impact upon the Conservation Area, when mitigation measures are taken into account, is deemed to be a **minor adverse** (not significant) effect, due to the visibility of the wharf construction from within the Conservation Area.

Impact 2G. Wyberton Conservation Area (RHDHV33), 1.8km south-west.

8.8.69 Currently the Conservation Area has a particularly 'quaint English village' character, whilst dense and mature foliage, particularly along Church Lane, adds to a sense of age and character to the area, whilst simultaneously limiting views of the designated heritage assets which would add to the character. When leaving the Conservation Area, heading eastwards, views of Boston Stump are apparent, although partially masked by tree cover throughout the landscape. Views towards to Facility were not apparent, although the Biomass UK No. 3 Ltd stack was visible on the horizon.

Magnitude of Impact

8.8.70 Due to the particularly limited views to the Facility, there could be a **negligible** impact upon the Conservation Area's setting.

Heritage Significance (Sensitivity)

8.8.71 As a Conservation Area, it is identified as having a **medium** heritage significance.

Significance of Effect

8.8.72 The change in views from the southern side of the Conservation Area are deemed to be a **minor adverse** effect upon the church and its setting.

Mitigation Measures

8.8.73 Construction best practice and core working hours will reduce any minor impact upon the Conservation Area.

Residual Impacts

8.8.74 With the embedded mitigation, there will be a **minor adverse** impact upon the asset.

Impact 3: Direct impact upon above ground heritage assets

8.8.75 The Facility might have a permanent direct physical impact upon the Roman Bank, a non-designated heritage asset. Current design indicates that part of the bank will be removed for installation of an access road to the light weight aggregate (LWA) plant.

8.8.76 This asset is a long-running earthwork and forms part of early sea defences that can be traced as far as North Norfolk. The section of interest is on the southern bank of The Haven and runs through the centre of the Application Site. Currently, the earthwork stands at approximately 2 m in height, following a sinuous route that mirrors the original route of the river prior to its canalisation in the early 19th century. Currently, the asset has been impacted in parts along its length, with a new road being constructed over it directly north of the Facility and 2 m high barrier fencing being installed along the top of certain sections of the bank, where it forms the boundary to modern industrial plots. A public right of way follows the top of the bank.

8.8.77 The width of the bank that would need to be removed will be confirmed through finalisation of the design.

Magnitude of Impact

8.8.78 The potential change to the asset is deemed to be a **medium impact** to its current preservation and setting.

Heritage Significance (Sensitivity)

8.8.79 The asset is a long running extant earthwork, approximately 2 m high, with a local significance in terms of cultural appreciation and interest and as an extant earthwork is deemed to be of **medium** heritage significance. Its significance is degraded by the heavily compromised character and poor context (setting) this section of the earthwork is currently in.

Significance of Effect

8.8.80 The overall significance of effect is identified as being **moderate adverse**, with a small section of the bank being removed. The rest of the design would indicate that no construction works will be required nearby to the asset.

Mitigation Measures

8.8.81 Mitigation regarding 'The Roman Bank' will consist of archaeological fieldwork and survey, along with enhancements to the surviving remains to improve public appreciation. The proposed mitigation measures are:

- Archaeological survey and excavation of the section of trench to be removed, undertaken in compliance with the WSI;
- Production of an archive report for the works, and dependant on results an article within a regional journal; and
- Finally, a public information board would be produced detailing the results of the work (and any associated archaeological results from the project) which would then be installed near to the Roman Bank, where accessible to the public. This would aid in informing the local residents of the bank's history and value.

Residual Impacts

8.8.82 The removal of the section of earthwork would be undertaken under archaeological supervision, allowing for recording of the asset and furthering current understanding of it. Following this mitigation works and introduction of a public information board, it is predicted that there will be a **neutral (not significant)** impact upon the heritage asset.

Impact 4: Indirect impact upon setting of recorded non-designated assets

8.8.83 The setting of the Roman Bank may be affected by the Facility, with additional industrial activity bounding the asset. Cumulatively, this asset has already been greatly impacted within the area, with numerous other industrial units and the general activity within its vicinity causing a degradation in ability to appreciate the asset.

Magnitude of impact

8.8.84 This change is deemed to be a **medium** change to its baseline condition. This is due to the introduction of construction activity and associated noise within the setting of the earthwork.

Heritage Significance (Sensitivity)

8.8.85 The asset is a long running extant earthwork, approximately 2 m high, with **medium** significance in terms of cultural appreciation and interest. This significance is degraded by the heavily compromised character and poor context (setting) this section of earthwork is currently in.

Significance of Effect

8.8.86 The overall significance of effect is identified as being **moderate adverse**.

Mitigation Measures

8.8.87 Mitigation against this temporary change in setting is difficult, with a lack of achievable changes due to the overall setting of the asset. Any potential public information board or engagement detailing the bank's history, undertaken following the archaeological fieldwork prior to construction, would aid in appreciation of the asset. Furthermore, as the footpath will form the main public right of way following closure of the Coast Path if the Facility is built, the Facility will improve access to and along the footpath. These improvements include the potential to remove some of the intrusive metal fencing from the top of the bank to its base and removal and management of the intrusive vegetation along the footpath.

Residual Impacts

8.8.88 Due to the potential to increase current understanding of the heritage asset following archaeological works on the Roman Bank, along with the potential for better public access along the heritage asset, it is considered that the residual impact upon the asset would be reduced to **minor adverse**.

8.9 Potential Impacts during Operation

8.9.1 The operation of the Facility has been deemed to have a neutral impact on all assets outside of the key assets as assessed in **Appendix 8.1**. Operation of the Facility will not cause further impacts for **Impact 1: Direct Impact on (Permanent Change to) potential buried archaeological remains**, or **Impact 3: Direct impact upon above ground heritage assets** as impacts associated with these aspects are limited to the construction phase only. This results in no further direct impacts during operation for the following key assets:

- The Roman Bank (RHDHV65)
- Prehistoric Peat deposits and historic alluvium (RHDHV66);
- The Haven mudbanks (RHDHV90);
- Potential Foreshore remains (RHDHV91); and
- Potential buried archaeological remains (RHDHV96).

8.9.2 This is due to the mitigation undertaken during the construction of the Facility ensuring any potential archaeological remains are preserved by record.

8.9.3 All effects during operation are detailed within **Table 8.10** and summarised below.

Impact 2: Indirect Impact upon setting of designated heritage assets

8.9.4 Operational impacts upon other key assets may arise from changes to their setting. Similarly, there is the potential for views to assets to be temporarily blocked whilst vessels are docked at the wharf.

8.9.5 The sensitivity of these key assets remains as per construction (of high / moderate heritage significance).

8.9.6 The visual effect of the Facility will result in impacts of a similar nature as during construction, with an expected lower magnitude as embedded mitigation measures built into the design of the facility (e.g. muted colours) would decrease the visibility of the Facility from the assets.

8.9.7 The significance of effect for these impacts are identified as being **minor**. The assets that could be affected are:

- Wybert's Castle (RHDHV01) (**minor adverse**);
- Slippery Gowt Sluice (RHDHV05) (**minor adverse**);
- Maud Foster Sluice (RHDHV06) (**minor adverse**);
- Parish Church of St Nicholas (RHDHV07) (**minor adverse**);
- Skirbeck Conservation Area (RHDHV31) (**minor adverse**); and
- Wyberton Conservation Area (RHDHV33) (**minor adverse**).

8.9.8 Similarly, the Facility could be visible from the top of St Botolph's Church tower (RHDHV26). This change in view is deemed to be **minor adverse**, due to the distance between the assets. Similarly, other modern developments within the locality of the Facility already draw the eye significantly (e.g. the electricity pylons), as discussed within the Cultural Heritage DBA (**Appendix 8.1, Section A8.10**).

8.9.9 There is no additional mitigation that could be specified to reduce visual setting effects any further than those which comprise embedded mitigation and with use of standard construction hours and practices. As such, the residual impacts are as presented above, all of which are considered to be **not significant**.

Impact 4: Indirect impact upon setting of recorded non-designated assets

8.9.10 Similarly, as for construction, there is potential for a change in setting for The Roman Bank (RHDHV65) due to the Facility. The Facility will be visible from the

earthwork, whilst additional noise may reduce the ability to appreciate the asset. As the setting is already one that includes heavy industrial activity and noise, the change is considered to be **minor adverse (not significant)**.

8.10 Potential Impacts during Decommissioning

8.10.1 It is anticipated that the impacts during decommissioning will be similar to those of construction, as discussed within the Cultural Heritage DBA (**Appendix 8.1**).

8.10.2 The heritage assets that may be affected are:

- Prehistoric Peat deposits and historic alluvium (RHDHV66);
- The Haven mudbanks (RHDHV90);
- Potential Foreshore remains (RHDHV91); and
- Potential buried archaeological remains (RHDHV96).

8.10.3 Impacts to these assets will have been mitigated previously from preservation by record of the remains prior to construction.

8.10.4 Following the decommissioning of the project, there could be a **negligible or minor beneficial** effect on the setting of other key assets (**Table 8.10**). Impacts that were continuing through from the construction and operational phase regarding setting would be removed.

8.11 Cumulative Impacts

8.11.1 The below table (**Table 8.7**) assesses the potential for cumulative impacts to occur, relative to the four impacts identified as part of this impact assessment.

Table 8.7 Potential Cumulative Impacts

Impact	Potential cumulative impact for	Data confidence	Rationale
1: Direct impact to potential buried archaeological remains	No	Medium	The potential buried remains would be located within the footprint of the Facility.
2: Indirect impact upon setting of designated heritage assets	Yes	Medium	Other developments could also result in a change to setting of nearby designated heritage assets also affected by this Facility.
3: Direct impact upon above ground heritage assets	Yes	High	The above ground asset (the Roman Bank) runs for some distance within

Impact	Potential cumulative impact	for	Data confidence	Rationale
				the local area and has already been impacted by other developments.
4: Indirect impact upon setting of recorded non-designated heritage assets	Yes		High	Similar to impact 3, further developments within the industrial estate may affect the setting of the Roman Bank.

8.11.2 Of the projects assessed for cumulative impact (**Table 8.8**), the main issue identified would be any cumulative change to heritage assets occurring due to a change to their setting which could affect their heritage significance. The Boston Barrier will introduce a new structure into the landscape which, in combination with the Facility, has the potential to further affect the setting of Maud Foster Sluice, St Nicholas Church and the Skirbeck Conservation Area during operation. This is due to the increase in height of the current flood bank along The Haven, and the Boston Barrier's height, which may work together the reduce visibility between heritage assets. Overall, this is considered to result in a non-significant impact, particularly when considering the beneficial results of the Boston Barrier Project (a lowering of flood risk to heritage assets).

8.11.3 Of the other projects assessed, no significant cumulative impact is identified, due to the minor works involved (e.g. Battery Energy Storage Plant on Marsh Lane), or the limited intervisibility between the projects resulting in no identified indirect impacts (e.g. The Quadrant Mixed-use development and Stephenson Close Residential Development).

Table 8.8 Summary of Projects Considered for the CIA in Relation to the Topic

Project	Status	Development Period	Distance from the Facility (km)	Project Definition	Project Status	Data Included in CIA	Rationale
Boston Barrier Flood Defence	Transport and Works Act Order consented	2017 - ongoing (completed end of 2020)	Boston Barrier at closest point to the Application Site is 500 m.	Environmental Statement	Complete / high	Yes	Included due to close proximity and the potential for combination of effects upon nearby heritage assets during operation. There is no potential for the construction programmes to overlap.
Battery Energy Storage Plant (Marsh Lane) B/17/0467	Application approved	2017 - ongoing	Beeston Farm less than 10 m from the Application Site	Detailed application	Incomplete / low	Yes	Included due to close proximity and the potential for combination of effects upon nearby heritage assets.
The Quadrant Mixed-use development of 502 dwellings and commercial/leisure uses B/14/0165	Application approved Construction started	2014 - ongoing	Quadrant 1 1.2 km from the Application Site	Details within ES	Quadrant 1 – Complete/ high Quadrant 2 - Incomplete/ low	Yes	Included due to close proximity and the potential for combination of effects upon nearby heritage assets.
Land to the west of Stephenson Close Residential Development of up to 85 dwellings B/17/0515	Application not yet determined	2017 - ongoing	From the most eastern part of the Scheme to the Application Site is 550 m.	Outline only	Incomplete/ low	Yes	Not considered due to distance from the Facility.

Project Related



Project	Status	Development Period	Distance from the Facility (km)	Project Definition	Project Status	Data	Included in CIA	Rationale
Triton Knoll Offshore Wind Farm	DCO consented	2008 - ongoing	Onshore cable and corridor and Construction compound at Langrick 9.7 km from the Application Site	Environmental Statement	Complete/ high		No	Not considered due to distance from the Facility.
Viking Link Interconnector B/17/0340	Application approved	2014 - 2023	Bicker Fen substation 14.4 km from the Application Site	Environmental Statement	Incomplete / low		No	Not considered due to distance from the Facility.

8.12 Transboundary Impacts

8.12.1 As there is no international border near to the Facility, there are no transboundary impacts related to Cultural Heritage for this project.

8.13 Inter-Relationships with Other Topics

8.13.1 There is an inter-relationship between Cultural Heritage and the following topics:

- **Chapter 9 Landscape and Visual Impact;**
- **Chapter 10 Noise and Vibration;**
- **Chapter 11 Contaminated Land, Land Use and Hydrogeology chapter;**
and
- **Chapter 16 Estuarine Processes.**

8.13.2 These are discussed as part of the Impact Assessment (**Section 8.8.5** and **Section 8.8.12**).

8.14 Interactions

8.14.1 The impacts identified and assessed in this chapter have the potential to interact with each other, which could give rise to synergistic impacts because of that interaction. The worst-case impacts assessed within the chapter take these interactions into account and for the impact assessments are considered conservative and robust. For clarity, the areas of interaction between impacts are presented in **Table 8.9**, along with an indication as to whether the interaction may give rise to synergistic impacts.

Table 8.9 Interaction between Impacts

Construction				
	1 Direct impact to potential buried archaeological remains	2 Indirect Impact upon setting of designated heritage assets	3 Direct impact upon above ground heritage assets	4 Indirect impact upon setting of recorded non-designated assets
1 Direct impact to potential buried archaeological remains	-	No	Yes	No

2 Indirect Impact upon setting of designated heritage assets	No	-	Yes	Yes
3 Direct impact upon above ground heritage assets	Yes	No	-	Yes
4 Indirect impact upon setting of recorded non-designated assets	No	Yes	Yes	-
Operation				
	1 Direct impact to potential buried archaeological remains	2 Indirect Impact upon setting of designated heritage assets	3 Direct impact upon above ground heritage assets	4 Indirect impact upon setting of recorded non-designated assets
1 Direct impact to potential buried archaeological remains	-	No	Yes	No
2 Indirect Impact upon setting of designated heritage assets	No	-	Yes	Yes
3 Direct impact upon above ground heritage assets	No	Yes	-	Yes
4 Indirect impact upon setting of recorded non-designated assets	No	Yes	Yes	-
Decommissioning				
It is anticipated that the decommissioning impacts will be similar in nature to those of construction.				

8.15 Summary

8.15.1 This Cultural Heritage chapter identifies that potential impacts upon heritage assets, once mitigation is taken into account, are **negligible to minor adverse**



(i.e. not significant in EIA terms). The impacts through construction, operation and decommissioning are summarised below in **Table 8.10** and proposed mitigation measures in **Table 8.11**.

Table 8.10 Impact Summary

Potential Impact	Receptor	Value/ Sensitivity	Magnitude	Significance	Mitigation	Residual Impact
Construction						
1: Direct impact to potential buried archaeological remains.	66: Prehistoric peat deposits and historic alluvium	High	High negative	Major adverse	Archaeological evaluation and recording.	Minor adverse
	90: The Haven Mudbanks	Low	High negative	Major adverse	Archaeological evaluation and recording.	Minor adverse
	91: Foreshore remains	High	High negative	Major adverse	Archaeological evaluation and recording.	Minor adverse
	96: Buried archaeological features	High	High negative	Major adverse	Archaeological evaluation and recording.	Minor adverse
2: Indirect impact upon setting of designated heritage assets	1: Wybert's Castle	High	Negligible negative	Moderate adverse	Standard construction hours & practices	Minor adverse
	5: Slippery Gowt Sluice	High	Negligible negative	Minor adverse	Standard construction hours & practices	Minor adverse
	6: Maud Foster Sluice	High	Negligible negative	Minor adverse	Standard construction hours & practices	Minor adverse
	7: Parish of St Church	High	Negligible	Minor adverse	Standard construction	Minor adverse

Potential Impact	Receptor	Value/ Sensitivity	Magnitude	Significance	Mitigation	Residual Impact
	Nicholas		negative		hours & practices	
	26: St Botolph's Church	High	Negligible negative	Minor adverse	Standard construction hours & practices	Minor adverse
	31: Skirbeck Conservation Area	Medium	Low negative	Minor adverse	Standard construction hours & practices	Minor adverse
	33: Wyberton Conservation Area	Medium	Negligible negative	Minor adverse	Standard construction hours & practices	Negligible adverse
3: Direct impact upon above ground heritage asset	65: The 'Roman Bank'	Medium	Medium negative	Moderate adverse	Archaeological survey and excavation	Neutral
4: Indirect impact upon setting of recorded non-designated assets	65: The 'Roman Bank'	Medium	Medium negative	Moderate adverse	Public information board (enhancement)	Minor adverse
Operation						
1: Direct impact to potential buried archaeological remains.	No further impact					
2: Indirect impact upon setting of designated heritage assets	1: Wybert's Castle	High	Negligible negative	Minor adverse	n/a	Minor adverse
	5: Slippery Gowt Sluice	High	Negligible negative	Minor adverse	n/a	Minor adverse

Potential Impact	Receptor	Value/ Sensitivity	Magnitude	Significance	Mitigation	Residual Impact
	6: Maud Foster Sluice	High	Negligible negative	Minor adverse	n/a	Minor adverse
	7: Parish Church of St Nicholas	High	Negligible negative	Minor adverse	n/a	Minor adverse
	26: St Botolph's Church	High	Negligible negative	Minor adverse	n/a	Minor adverse
	31: Skirbeck Conservation Area	Medium	Minor negative	Minor Adverse	n/a	Minor adverse
	33: Wyberton Conservation Area	Medium	Negligible negative	Negligible Adverse	n/a	Minor adverse
3: Direct impact upon above ground heritage asset	No further impact					
4: Indirect impact upon setting of recorded non-designated assets	65: The 'Roman Bank'	Medium	Medium negative	Moderate adverse	Public information board (enhancement)	Minor adverse
Decommissioning						
1: Direct impact to potential buried archaeological remains.	66: Prehistoric peat deposits and historic alluvium	High	Negligible negative	Minor adverse	Previous works during construction will have mitigated	Minor adverse
	90: The Haven Mudbanks	High	Negligible negative	Minor adverse	Previous works during construction will have mitigated	Minor adverse

Potential Impact	Receptor	Value/ Sensitivity	Magnitude	Significance	Mitigation	Residual Impact
	91: Foreshore remains	High	Negligible negative	Minor adverse	Previous works during construction will have mitigated	Minor adverse
	96: Buried archaeological features	High	Negligible negative	Minor adverse	Previous works during construction will have mitigated	Minor adverse
2: Indirect impact upon setting of designated heritage assets	1: Wybert's Castle	High	Minor positive	Minor beneficial	n/a	Minor beneficial
	5: Slippery Gowt Sluice	High	Negligible positive	Negligible beneficial	n/a	Negligible beneficial
	6: Maud Foster Sluice	High	Low positive	Minor beneficial	n/a	Minor beneficial
	7: Parish Church of St Nicholas	High	Low positive	Negligible beneficial	n/a	Negligible beneficial
	26: St Botolph's Church	High	Low positive	Negligible beneficial	n/a	Negligible beneficial
	31: Skirbeck Conservation Area	Medium	Low positive	Negligible beneficial	n/a	Negligible beneficial
	33: Wyberton Conservation Area	Medium	Low positive	Negligible beneficial	n/a	Negligible beneficial
3: Direct impact upon above ground heritage asset	No impact					
4: Indirect impact upon setting of recorded non-	65: The 'Roman Bank'	Medium	Low positive	Minor beneficial	n/a	Minor beneficial

Potential Impact	Receptor	Value/ Sensitivity	Magnitude	Significance	Mitigation	Residual Impact
designated assets						

Table 8.11 Summary of Potential Mitigation

Mitigation No.	Name	Description	Affected Assets
Embedded Mitigation			
1	Noise reduction (sound insulation)	Design of Facility would require similar noise restrictions to Biomass UK No. 3 Ltd via implementation of conditions associated with the environmental permit for the Facility – reducing noise impact on surround area.	Wybert's Castle Parish Church of St Nicholas Maud Foster Sluice Slippery Gowt Sluice Skirbeck Conservation Area Wyberton Conservation Area
2	Muted colours on cladding	A muted colour palette on outer cladding, reducing visual impact of the Facility	Wybert's Castle St Botolph's Church Parish Church of St Nicholas Maud Foster Sluice Slippery Gowt Sluice Skirbeck Conservation Area Wyberton Conservation Area The 'Roman Bank'

Mitigation No.	Name	Description	Affected Assets
3	Timed lighting	Lights within the grounds of the Facility will be on timers and motion sensors, to ensure limited visual impact upon the setting of assets within the vicinity during the evening and night.	Wybert's Castle St Botolph's Church Parish Church of St Nicholas Maud Foster Sluice Slippery Gowt Sluice Skirbeck Conservation Area Wyberton Conservation Area The 'Roman Bank'
Pre-works Mitigation			
4	Written Scheme of Investigation	<p>A WSI should be agreed upon with stakeholders regarding the archaeological mitigation works to be undertaken as part of the project, including reporting, archiving and publication.</p> <p>This will include:</p> <ul style="list-style-type: none"> • recording of any foreshore remains revealed during the works; • geoarchaeological analysis of ground investigation works; • potential for geophysical analysis & trial trenching (following results of geoarchaeological analysis); • Archaeological investigation of the Roman Bank (survey & excavation); and • Archaeological monitoring of piling and groundworks for wharf and Facility. 	Prehistoric peat deposits & historic alluvium The Haven mudbanks Foreshore remains The Roman Bank Buried archaeological features

Mitigation No.	Name	Description	Affected Assets
5	The Roman Bank Survey/evaluation	A phase of archaeological evaluation/excavation on the section of the Roman Bank requiring removal will be undertaken. This will follow the methodology detailed within the agreed WSI.	The Roman Bank Buried archaeological features
6	Monitoring of geotechnical works	Geoarchaeological monitoring of boreholes and geotechnical test pits associated with the wharf and Facility will be undertaken. This will ensure any buried deposits of geoarchaeological interest (e.g. peat layers) will be identified and reported upon.	Buried archaeological features Prehistoric peat deposits & historic alluvium
7	Archaeological evaluation	If areas of archaeological interest are identified during the geotechnical works monitoring and analysis, a phase of archaeological geophysical survey and/or trial trenching could be undertaken across the area(s) of interest.	Buried archaeological features
8	Monitoring of piling	Monitoring of the wharf and Facility piling to allow for identification of any remains or deposits of archaeological interest, following the methodology detailed in the agreed WSI. If foreshore remains are identified during the monitoring, excavation during low-tide would be possible, detailed within the agreed WSI.	Prehistoric peat deposits & historic alluvium The Haven mudbanks Foreshore remains
9	Monitoring of dredging	Monitoring of the dredging of The Haven will be undertaken to the specification set out in the agreed WSI.	Prehistoric peat deposits & historic alluvium The Haven mudbanks Foreshore remains
Enhancements			

Mitigation No.	Name	Description	Affected Assets
10	Public Information Board	A public information board can be produced, detailing results of the Roman Bank and any other results of archaeological interest. This can be placed on a footpath, allowing residents to appreciate the significance of the Roman Bank.	The Roman Bank Foreshore remains Prehistoric peat deposits & historic alluvium Buried archaeological features
11	Public outreach	Public outreach can be undertaken by Royal HaskoningDHV or the appointed archaeological subcontractors to present the results to local groups and schools.	The Roman Bank Foreshore remains Prehistoric peat deposits & historic alluvium Buried archaeological features

8.16 References

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