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13.0 CULTURAL HERITAGE

13.1 Introduction

- 13.1.1 This chapter of the Environmental Statement (ES) addresses the potential effects of the Proposed Development on cultural heritage. Cultural heritage in this context includes built heritage, archaeology, the historic landscape, and any other elements that may contribute to the heritage of the area.
- 13.1.2 This chapter is supported by Figures 13.1 and 13.2 in ES Volume II (Document Ref. 6.3), and a gazetteer of the heritage assets (Appendix 13A) and additional baseline information (Appendix 13B) in ES Volume III (Document Ref. 6.4).

13.2 Legislation and Planning Policy Context

The Ancient Monuments and Archaeological Areas Act 1979

- 13.2.1 The Ancient Monuments and Archaeological Areas Act imposes a requirement for Scheduled Monument Consent for any works of demolition, repair, and alteration that might affect a scheduled monument. For non-designated archaeological assets, protection is afforded through the development management process as established both by the Town and Country Planning Act 1990 and Planning Act 2008.

The Planning (Listed Buildings and Conservation Areas) Act 1990

- 13.2.2 The Planning (Listed Buildings and Conservation Areas) Act sets out the principal statutory provisions which must be considered in the determination of any application affecting either listed buildings or conservation areas.
- 13.2.3 Section 66 of the Planning (Listed Buildings and Conservation Areas) Act states that in considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. By virtue of Section 1(5) of the Planning (Listed Buildings and Conservation Areas) Act a listed building includes any object or structure within its curtilage.
- 13.2.4 Section 72 of The Planning (Listed Building and Conservation Areas) Act 1990 established a general duty for a planning authority or the Secretary of State with respect to any buildings or other land in a conservation area that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of a conservation area.
- 13.2.5 Case law (East Northamptonshire District Council v Secretary of State for Communities and Local Government [2014] EWCA Civ 137 and Mordue v Secretary of State for Communities and Local Government and others [2015] EWCA Civ 1243) makes it clear that the duty imposed in the Planning (Listed Buildings and Conservation Areas) Act 1990 means that in considering whether to grant permission for development that may cause harm (substantial or less than substantial) to a designated asset (listed building or conservation area) or

its setting, the decision maker should, in exercising the planning 'balance', give considerable importance and weight to the desirability of avoiding that harm.

National Planning Policy

Overarching National Policy Statement for Energy (EN-1)

- 13.2.6 Overarching National Policy Statement (NPS) for Energy (EN-1) (Department for Energy and Climate Change, 2011) recognises that the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment and sets out principles for assessing such impacts.
- 13.2.7 The NPS states that the historic environment results from the interaction between people and places through time, and includes all surviving physical remains of past human activity. NPS EN-1 Paragraph 5.8.2 defines a heritage asset as an element of the historic environment that is of value to present and future generations because of its historic, archaeological, architectural or artistic interest. The sum of these interests is referred to as its significance.
- 13.2.8 NPS EN-1 Paragraph 5.8.3 recognises that some heritage assets have a level of significance that warrants official designation, including World Heritage Sites, scheduled monuments, protected wreck sites, protected military remains, listed buildings, registered parks and gardens, registered battlefields and conservation areas. The NPS also recognises that there are non-designated heritage assets that are demonstrably of equivalent significance to scheduled monuments, and if the evidence suggests that such an asset may be affected by a proposed development, it should be considered subject to the policies for designated heritage assets (paragraph 5.8.5).
- 13.2.9 NPS EN-1 Paragraph 5.8.6 states that impacts on other non-designated heritage assets should be considered on the basis of clear evidence that they have a heritage significance that merits such consideration, even though the assets are of lesser value than designated heritage assets.
- 13.2.10 NPS EN-1 Paragraph 5.8.8 states that, as part of its assessment, the applicant should provide a description of the significance of the heritage assets affected by the development and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage asset and no more than is sufficient to understand the potential effect on the heritage asset. As a minimum, the applicant should consult the relevant Historic Environment Record (HER) where details of previously recorded heritage assets and archaeological assessments are held.
- 13.2.11 Where a development site includes, or has the potential to include, heritage assets of archaeological interest, the applicant should carry out a desk-based assessment and if necessary, a field evaluation in order to properly assess the interest (NPS EN-1 Paragraph 5.8.9). Ultimately, the applicant should ensure that the extent of the impact of the proposed development on the heritage assets can be adequately understood from the application and supporting documents (NPS EN-1 Paragraph 5.8.10).

- 13.2.12 NPS EN-1 states that the significance and value of heritage assets should be taken into account when considering the impact of a proposed development. The desirability of sustaining or enhancing the significance of heritage assets should also be taken into account, along with the desirability of new development making a positive contribution to the character and distinctiveness of the historic environment. NPS EN-1 Paragraph 5.8.14 states there should be a presumption in favour of the conservation of designated heritage assets, and loss of significance to any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a Grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including scheduled monuments; registered battlefields; Grade I and II* listed buildings; Grade I and II* registered parks and gardens; and World Heritage Sites, should be wholly exceptional. Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of the development (EN-1 Paragraph 5.8.15).
- 13.2.13 NPS EN-1 Paragraph 5.8.20 recognises that where loss is justified, based on the merits of the development, the developer should be required to record and advance understanding of the heritage asset before it is lost. Where appropriate, such work will be carried out in accordance with a written scheme of investigation that has been agreed in writing with the local authority (NPS EN-1 Paragraph 5.8.21).

National Planning Policy Framework (NPPF)

- 13.2.14 The National Planning Policy Framework (NPPF) (DCLG, 2019) sets out the Government's planning policies for England and how these should be applied to contribute to the achievement of sustainable development. The NPPF requires plans, both strategic and non-strategic to make provision for the conservation and enhancement of the built and historic environment (Paragraphs 20(d) and 28). Section 16 of the NPPF sets out a series of policies that are a material consideration to be taken into account in development management decisions.
- 13.2.15 Heritage assets are defined within the NPPF as "A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest" (NPPF, Annex 2, Glossary). Heritage assets include those that are designated under legislation (such as listed buildings and scheduled monuments) as well as those that are non-designated. Non-designated heritage assets are assets that are considered to have a degree of local interest or significance usually recognised by local planning authorities either by their inclusion within the local HER or by local listing.
- 13.2.16 The NPPF sets out the importance of being able to assess the significance of heritage assets that may be affected by a development proposal. Significance is defined in Annex 2 as the value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic, and can extend to its setting. The setting of a heritage asset is defined in Annex 2 as "*the surroundings in which a heritage asset is experienced*". In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets

affected, including any contribution made by their setting. The level of detail should be proportionate to the asset's importance and no more than is sufficient to understand the potential impact of the proposal on their significance (paragraph 189). Similarly, there is a requirement on local planning authorities to identify and assess the particular significance of any heritage asset that may be affected by a proposal; and that they should take this assessment into account when considering the impact of a proposal on a heritage asset (paragraph 190).

13.2.17 In determining planning applications, local planning authorities should take account of the following three points:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness (paragraph 192).

13.2.18 Paragraphs 193 to 196 of the NPPF recognise that heritage assets can be harmed or lost through alteration or destruction or development within their setting. This harm ranges from less than substantial through to substantial. With regard to designated assets, paragraph 193 states that great weight should be given to an asset's conservation, irrespective of the level of harm, and the more important the asset, the greater the weight should be. Paragraph 194 draws a distinction between those assets of exceptional interest (e.g. Grade I and Grade II* listed buildings, scheduled monuments (or assets which are demonstrably of equivalent significance to scheduled monuments as per footnote 63), and those of special interest (e.g. Grade II listed buildings). Any harm or loss of heritage significance requires clear and convincing justification, and substantial harm or loss should be wholly exceptional with regard to those assets of greatest interest (paragraph 194).

13.2.19 In instances where development would cause substantial harm to or total loss of significance of a designated asset consent should be refused unless that harm or loss is 'necessary to achieve substantial public benefits that outweigh that harm or loss' (paragraph 195). In instances where development would cause less than substantial harm to the significance of a designated asset the harm should be weighed against the public benefits of the proposal including its optimum viable use (paragraph 196). In relation to non-designated assets a balanced judgment is required taking into account the scale of harm or loss and the significance of the asset (paragraph 197).

13.2.20 It should be noted that paragraph 199 of the NPPF says that the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted. Accordingly, whilst it is noted that there is potential to uncover remains of our past and generate records through the Proposed Development, the benefit or otherwise of this has not been considered as a factor that either mitigates or reduces any identified harm. Similarly, it has not been treated as a benefit of the Proposed Development.

13.2.21 Guidance on the application of heritage policy within the NPPF is provided by on-line Planning Practice Guidance (DHCLG, 2016) and best practice advice is provided by a series of Historic England Advice notes (see paragraphs 13.2.26-13.2.30 below).

Planning Practice Guidance

13.2.22 The Planning Practice Guidance (PPG) is a government produced on-line document that provides further advice and guidance that expands the policy outlined in the NPPF. It expands on terms such as 'significance' and its importance in decision making. The PPG clarifies that being able to properly assess the nature, extent and the importance of the significance of the heritage asset and the contribution of its setting, is very important to understanding the potential impact and acceptability of development proposals (Paragraph: 009).

13.2.23 The PPG states that a thorough assessment of the impact on setting needs to take into account, and be proportionate to, the significance of the heritage asset under consideration and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it (Paragraph: 013).

13.2.24 The PPG discusses how to assess if there is substantial harm. It states that what matters in assessing if a proposal causes substantial harm is the impact on the significance of the asset. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed (Paragraph: 017). Generally, harm to heritage assets can be avoided or minimised if proposals are based on a clear understanding of the heritage asset and its setting (Paragraph: 019).

13.2.25 The NPPF indicates that the degree of harm should be considered alongside any public benefits that can be delivered by development. The PPG states that these benefits should flow from the proposed development and should be of a nature and scale to be of benefit to the public and not just a private benefit and would include securing the optimum viable use of an asset in support of its long term conservation (Paragraph: 020).

Historic England Good Practice Advice Notes

13.2.26 Historic England have published a series of Good Practice Advice (GPA) of which those of most relevance to this appraisal are GPA2 Managing Significance in Decision-taking (March 2015) and GPA3 The Setting of Heritage Assets (2017).

13.2.27 GPA2 emphasises the importance of having a knowledge and understanding of the significance of heritage assets likely to be affected by the development and that the "first step for all applicants is to understand the significance of any affected heritage asset and, if relevant the contribution of its setting to its significance" (paragraph 4). Early knowledge of this information is also useful to a local planning authority in pre-application engagement with an applicant and ultimately in decision making (paragraph 7).

13.2.28 GPA3 provides advice on the setting of heritage assets. Setting is as defined in the NPPF and comprises the surroundings in which a heritage asset is experienced. Elements of a setting can make positive or negative contributions to the significance of an asset and affect the ways in which it is experienced.

Historic England state that setting does not have a boundary and what comprises an asset's setting may change as the asset and its surrounding evolve. Setting can be extensive and particularly in urban areas or extensive landscapes can overlap with other assets. The contribution of setting to the significance of an asset is often expressed by reference to views and the GPA at paragraph 11 identifies those views such as those that were designed or those that were intended, that contribute to understanding the significance of assets.

13.2.29 The relationship between setting and significance is set out in a series of bullets in GPA3 that cover change, the appreciation of setting and the setting of buried assets. Setting and significance are not dependent upon public access. Designed settings such as those associated with a historic park can be extensive and project beyond the core elements of the asset. Development within the setting of an asset can be beneficial; it can also be harmful and therefore needs careful assessment.

13.2.30 Historic England advocates a stepped approach to assessment:

- Stage 1: identify which heritage assets and their settings are affected;
- Stage 2: assess the degree to which these settings and views make a contribution to the significance of the heritage asset or allow significance to be appreciated;
- Stage 3: assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it;
- Stage 4: explore ways to maximise enhancement and avoid or minimise harm; and
- Stage 5: make and document the decision and monitor outcome.

Local Planning Policy

13.2.31 The North East Lincolnshire Local Plan (North East Lincolnshire Council, March 2018) has one policy relating to heritage. This is as follows:

“Policy 39: Conserving and enhancing the historic environment: Proposed developments will be permitted where they sustain the cultural distinctiveness and significance of North East Lincolnshire’s historic environment by protecting, preserving and where appropriate, enhancing the character, appearance, significance and historic value of designated and non-designated heritage assets and their settings. Proposals which protect the significance of heritage assets and conserve the historic landscape will be supported. In the case of Conservation Areas, proposed developments which preserve and enhance the special character and architectural appearance of the Conservation Area will also be supported. Proposals which would affect the significance of a heritage asset should be informed by proportionate historic environment assessments and evaluations (such as heritage impact assessments, desk-based appraisals, field evaluation and historic building reports). The impact of the significance of assets will be assessed by the council, and where an impact equates to substantial loss of significance a proposal will be considered to cause substantial harm. Permission will only be

granted where substantial harm to assets of the highest significance is wholly exceptional, and for all other nationally designated assets, exceptional.”

13.3 Assessment Methodology and Significance Criteria

13.3.1 This section presents the following:

- identification of the information sources that have been consulted throughout preparation of this chapter;
- the methodology behind the baseline assessment including the definition of an appropriate study area; and
- the methodology and terminology used in the assessment of effects.

13.3.2 As outlined within the EIA Scoping Report (see Appendix 1A in ES Volume III, Document Ref. 6.4) and within the Preliminary Environmental Information (PEI) Report no potential for significant effects on buried archaeology have been identified. The Site was stripped during the construction of the South Humber Bank Power Station (SHBPS) and appears to have been used as a laydown area and construction compound (refer to Plate 13B.4 in Appendix 13B in ES Volume III, Document Ref. 6.4). It is likely that any surviving remains will have been removed during this process and consequently there is unlikely to be any impact on archaeology. It is also considered that due to the nature of the Proposed Development and the previous extensive ground disturbance across the Site there will be no significant effect on any archaeological deposits outside of the Site boundary, for example due to changes in the water table. Further details in relation to drainage are presented in ES Chapter 14: Water Resources, Flood Risk and Drainage and in paragraph 13.6.21 below.

13.3.3 Although it is considered that there are unlikely to be any impacts on archaeology, and there are no predicted significant effects on archaeology, this chapter includes an assessment of the potential effects of the Proposed Development on archaeology.

Assessment Scenarios and Parameters

13.3.4 This assessment includes an investigation of the potential impact of the Proposed Development (construction, operation (including maintenance), and decommissioning) upon heritage assets. Three potential construction programme scenarios have been identified as outlined in Chapter 5: Construction Programme and Management. For the purposes of this assessment there is no difference between the three scenarios, and the construction assessment presented would apply to all.

13.3.5 This cultural heritage assessment is based on the maximum ‘Rochdale Envelope’ dimensions for the Proposed Development (as described in Chapter 4: The Proposed Development) as this comprises the ‘worst case’ in terms of impacts on cultural heritage assets.

Impact Assessment and Significance Criteria

13.3.6 The assessment of baseline conditions was carried out in line with the guidelines of the Chartered Institute for Archaeologists (CIfA) (which provides guidelines for all aspects of the historic environment), the Standard and Guidance for Historic

Environment Desk-Based Assessment (ClfA, 2017) and the Code of Conduct (ClfA, 2014). The assessments of significance and setting are made with reference to both national and local plan policy as outlined in Section 13.2, as well as Historic England guidance.

- 13.3.7 The significance (heritage value) of a heritage asset is derived from its heritage interest which may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting. The significance of a place is defined by the sum of its heritage interest.
- 13.3.8 The significance of identified heritage assets has been determined by a site visit, professional judgment guided by statutory and non-statutory designations, national and local policies, and archaeological research frameworks.
- 13.3.9 Taking these criteria into account, each identified heritage asset can be assigned a level of significance (heritage value) in accordance with the criteria as set in Table 13.1. The baseline significance (heritage value) is only provided for assets potentially affected by the Proposed Development in accordance with standard guidance for heritage assessment.

Table 13.1: Criteria for determining the significance (heritage value) of heritage assets

SIGNIFICANCE (HERITAGE VALUE)	CRITERIA
High	Assets of inscribed international importance, such as World Heritage Sites. Grade I and II* listed buildings. Grade I and II* registered historic parks and gardens. Registered battlefields. Scheduled monuments. Non-designated archaeological assets of schedulable quality and importance.
Medium	Grade II listed buildings. Grade II listed registered historic parks and gardens. Conservation Areas. Locally listed buildings included within a conservation area. Non-designated heritage assets of a regional resource value.
Low	Non-designated heritage assets of a local resource value as identified through consultation. Locally listed buildings. Non-designated heritage assets whose heritage values are compromised by poor preservation or damaged so that too little remains to justify inclusion into a higher grade.
Negligible	Assets with very little or no surviving archaeological interest.

SIGNIFICANCE (HERITAGE VALUE)	CRITERIA
	Buildings of no architectural or historical note; buildings of an intrusive character.

13.3.10 Having identified the significance (heritage value) of the heritage asset, the next stage in the assessment is to identify the level and degree of impact to an asset arising from the Proposed Development. Potential impacts are defined as a change resulting from the Proposed Development which affects a heritage asset. The impacts of a development upon heritage assets can be positive or negative; direct or indirect; long term or temporary and/ or cumulative. Impacts may arise during construction or operation and can be temporary or permanent. Impacts can occur to the physical fabric of the asset or affect its setting.

13.3.11 The level and degree of impact (impact rating) is assigned with reference to the criteria as set out in Table 13.2. In respect of cultural heritage an assessment of the level and degree of impact is made in consideration of any design mitigation (embedded mitigation).

Table 13.2: Criteria for determining the magnitude of impact on heritage assets

MAGNITUDE OF IMPACT	DESCRIPTION OF IMPACT
High	Change such that the significance of the asset is totally altered or destroyed. Comprehensive change to setting affecting significance, resulting in a serious loss in our ability to understand and appreciate the asset.
Medium	Change such that the significance of the asset is affected. Noticeably different change to setting affecting significance, resulting in erosion in our ability to understand and appreciate the asset.
Low	Change such that the significance of the asset is slightly affected. Slight change to setting affecting significance resulting in a change in our ability to understand and appreciate the asset.
Very Low	Changes to the asset that hardly affect significance. Minimal change to the setting of an asset that have little effect on significance resulting in no real change in our ability to understand and appreciate the asset.

13.3.12 An assessment of the effect, having taken into consideration any embedded mitigation, is determined by cross-referencing between the significance (heritage value) of the asset (Table 13.1) and the magnitude of impact (Table 13.2). The resultant effect (Table 13.3) can be classified as major, moderate, minor or negligible (adverse or beneficial).

Table 13.3: Criteria for determining the significance of effect

SIGNIFICANCE (HERITAGE VALUE)	MAGNITUDE OF IMPACT			
	High	Medium	Low	Very Low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible
Very Low	Minor	Negligible	Negligible	Negligible

13.3.13 Major or moderate effects are considered to be significant in Environmental Impact Assessment (EIA) terms. Within the NPS and NPPF impacts affecting the significance of heritage assets are considered in terms of harm and there is a requirement to determine whether the level of harm amounts to ‘substantial harm’ or ‘less than substantial harm’. There is no direct correlation between the significance of effect as reported in this ES and the level of harm caused to heritage significance. A major significant effect on a heritage asset would, however, more often be the basis by which to determine that the level of harm to the significance of the asset would be substantial. A moderate significant effect is unlikely to meet the test of substantial harm and would therefore more often be the basis by which to determine that the level of harm to the significance of the asset would be less than substantial. In all cases determining the level of harm to the significance of the asset arising from development impact is one of professional judgment.

Data Sources

13.3.14 The following sources of information have been reviewed and form the basis of the assessment of likely significant effects on heritage assets:

- National Heritage List for England;
- North East Lincolnshire Council Historic Environment Record (report date: 17/10/2019);
- North East Lincolnshire Council website for Planning History and Conservation Area information;
- Heritage Gateway (www.heritagegateway.org.uk);
- Archaeological Data Service (www.archaeologydataservice.ac.uk);
- National Library of Scotland (www.nls.uk); and
- Zone of Theoretical Visibility (ZTV) (refer to Figure 11.4 in ES Volume II, Document Ref. 6.3).

13.3.15 The resources within the study area (defined at paragraphs 13.3.16-13.3.18 below) have been defined.

Study Areas

13.3.16 As the setting of heritage assets are not fixed, a study area of 5 km from the Site has been used to identify any highly significant designated heritage assets, which could be affected by the Proposed Development due to its scale and the significance of these assets. This has taken into account the Zone of Theoretical Visibility (ZTV) around the Proposed Development.

13.3.17 A 1 km study area from the Site was used to identify any non-designated assets.

13.3.18 References in the remainder of this Chapter to ‘study area’ will refer to either the 1 km or 5 km study area, depending on which is relevant for the heritage asset in question.

Consultation

13.3.19 Historic England and North East Lincolnshire Council provided comments on the scope of the cultural heritage assessment through the EIA Scoping process for the Consented Development EIA. These along with the comments received within the EIA Scoping Opinion from the Planning Inspectorate (PINS) for the Proposed Development, and comments received as a result of consultation on the Proposed Development Preliminary Environmental Information Report (PEI) Report are summarised in Table 13.4 below.

Table 13.4: Consultation summary

SUMMARY OF CONSULTEE COMMENTS	RESPONSE
Historic England (comments on the Consented Development EIA Scoping Report)	
The development is likely to have an impact on a number of designated heritage assets and their settings so the assessment should be sufficiently detailed to identify how it might be delivered sustainably without it having serious adverse effects on designated heritage assets.	The assessment in Section 13.5 considers impacts on designated assets.
The assessment should be undertaken in accordance with the NPPF.	The assessment has been undertaken in accordance with the NPPF, which is discussed in Section 13.2.
The assessment should consider: <ul style="list-style-type: none"> ● the potential impact on the landscape especially if the site falls within an area of historic landscape; ● direct impacts on historic/ archaeological fabric (buildings, sites or areas) whether statutorily protected or not; 	In response to the points in turn: <ul style="list-style-type: none"> ● there are no designated heritage landscapes within the 5 km study area; ● direct impacts on designated and non-designated heritage assets

SUMMARY OF CONSULTEE COMMENTS	RESPONSE
<ul style="list-style-type: none"> ● other impacts, particularly the setting of listed buildings, scheduled monuments, registered parks and gardens, conservation areas etc. including views and intervisibility between historic sites; ● potential for buried archaeological remains; ● effects on landscape amenity from public and private land; and ● cumulative impacts. 	<p>are assessed in Section 13.5;</p> <ul style="list-style-type: none"> ● impacts on setting are assessed in Section 13.5; ● Section 13.4 summarises the potential for archaeological remains within the Site; ● effects on landscape amenity are assessed in Chapter 11: Landscape and Visual Amenity; and ● cumulative impacts are assessed in Chapter 17: Cumulative and Combined Effects.
<p>Our initial assessment shows the following within 5 km of the Site:</p> <ul style="list-style-type: none"> ● three scheduled monuments; ● four Grade I and II* listed buildings; ● 20 Grade II listed buildings; and ● two conservation areas. 	<p>Section 13.4 describes all the heritage assets identified within the 5 km study area.</p>
<p>We strongly recommend you involve the Conservation Officers of the relevant local authorities.</p>	<p>The North East Lincolnshire Council Conservation Officer was consulted on the Consented Development through the EIA scoping and subsequent planning application determination processes.</p>
<p>We recommend there should be a close link between the landscape and visual assessment and the heritage assessment.</p>	<p>The heritage assessment has been undertaken in co-ordination with the landscape and visual assessment.</p>
<p>The study area should be defined with reference to the ZTV.</p>	<p>As described in Section 13.3 above, the ZTV has informed the heritage assessment.</p>
<p>Historic England Good Practice Advice Notes 2 and 3 should be consulted.</p>	<p>The Good Practice Advice Notes have been consulted as described in Section 13.2.</p>

SUMMARY OF CONSULTEE COMMENTS	RESPONSE
North East Lincolnshire Council (comments on the Consented Development EIA Scoping Report)	
<p>Without access to the HER it is difficult to comment but due to the height of the proposed stack the boundary of the search area should take in the Dock Tower and Humber Bridge (both Grade I) and views from the settlements of Great Coates, Healing, Stallingborough and Immingham which all have significant heritage assets, scheduled monuments and highly designated listed buildings.</p>	<p>The assessment considers effects on the Dock Tower and views from heritage assets in Great Coates, Healing and Stallingborough.</p> <p>The Humber Bridge and Immingham were scoped out of the assessment due to the distances involved (approximately 20 km). Taking into consideration the wider landscape views, it is not considered that they will be affected.</p>
Planning Inspectorate (Proposed Development EIA Scoping Opinion)	
<p>The EIA Scoping Report for the Proposed Development states that potential effects on below ground archaeology are proposed to be scoped out because the site had previously been scraped as part of the construction of the SHBPS. The advice from Historic England points out that changes in drainage patterns can also affect buried remains. This raises the possibility that buried remains beyond the boundary of the Proposed Development could be affected by changes in drainage patterns. The Inspectorate does not agree therefore that effects on below ground archaeology can be scoped out for the areas beyond the boundaries of the Proposed Development. The ES should assess impacts resulting from changes in the existing drainage regime on archaeological features outside of the Proposed Development site where significant effects are likely to occur.</p>	<p>There is considered to be no potential for significant effects on any archaeological deposits outside the boundary of the Proposed Development due to changes in the water table. Further details in relation to drainage are presented in ES Chapter 14: Water Resources, Flood Risk and Drainage and in paragraph 13.6.21 below. Further information is provided in Appendix 14A Flood Risk Assessment (ES Volume III, Document Ref. 6.4).</p>
Historic England (comments on Proposed Development EIA Scoping Report)	

SUMMARY OF CONSULTEE COMMENTS	RESPONSE
<p>The development could, potentially have an impact on the setting of a number of designated heritage assets in the area and the ES should include a thorough assessment of the likely effects. Our initial assessment shows particular attention should be given to the following Scheduled Monuments:</p> <ul style="list-style-type: none"> • Stallingborough medieval settlement, post-medieval house and formal garden; • the churchyard cross 20 m south of St Peter and St Paul’s Church; • two moated sites at Healing Hall; • the listed buildings and historic centres associated with Stallingborough, Healing and Great Coates; and • the listed buildings associated with Grimsby quayside and docks. 	<p>Scheduled Monuments within a 5 km study area are described in Section 13.4 and impacts and effects are assessed in Section 13.6.</p>
<p>We would also expect the ES to consider potential impacts on non-designated features of historic, architectural or artistic interest. We would strongly recommend you involve your local Conservation Officer in the assessment.</p>	<p>Non-designated heritage assets with a 1 km study area are described in Section 13.4 and impacts and effects are assessed in Section 13.6.</p> <p>North East Lincolnshire Council have been consulted through the EIA scoping process for the Consented and Proposed Developments and Section 42 consultation for the Proposed Development. Their comments at the EIA scoping stage included comments in relation to heritage assets.</p>
<p>Given the heights of the proposed development structures and the surrounding landscape character this development is likely to be visible across a very large area and could, as a result, affect the significance of heritage assets at some distance from the site. The assessment should clearly demonstrate</p>	<p>The study area has been defined with reference to the Zone of Theoretical Visibility (ZTV) around the Proposed Development.</p>

SUMMARY OF CONSULTEE COMMENTS	RESPONSE
that the extent of the study area is appropriate.	
The assessment should also take account of the potential impact which associated activities such as construction, servicing and maintenance, and associated traffic, might have on perceptions, understanding and appreciation of the heritage assets in the area.	Traffic impacts have been considered as part of the assessment presented in this Chapter. A designated HGV route between the Site and the A180 (see Chapter 9: Traffic and Transport), along South Marsh Road, will keep construction, maintenance and operational HGV traffic away from designated heritage assets. No further impacts caused by construction traffic are anticipated. Other potential impacts from construction activities have been assessed in Section 13.6.
The assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits/ subsidence of buildings and monuments.	There are not considered to be any effects on any archaeological deposits outside the boundary of the Proposed Development due to changes to the drainage patterns. Further details in relation to drainage are presented in ES Chapter 14: Water Resources, Flood Risk and Drainage and in paragraph 13.6.20 below. Further information is also provided in Appendix 14A: Flood Risk Assessment (ES Volume III, Document Ref. 6.4).
North East Lincolnshire Council (comments on Proposed Development EIA Scoping Report)	
The Historic Environment Record is now accessible and should be consulted. A 5 km radius is acceptable.	The HER has been consulted and has informed the assessment presented in this Chapter.
The Scoping Report captures the relevant information previously	Noted.

SUMMARY OF CONSULTEE COMMENTS	RESPONSE
requested in their original scoping opinion; no further comments.	
Historic England (comments on Proposed Development PEI Report)	
Sub-surface remains of archaeological interest may survive at variable depth in this landscape. The survival of peat/organic deposits on and off site, their date and degree of preservation may be worthy of consideration through deposit modelling and the degree to which this matter has been effectively scoped is unclear.	The survival depths of archaeological remains in the adjacent site has been considered. This data has been addressed in relation to the results of geotechnical investigations at the Proposed Development Site.
The impact of water is not sufficiently articulated in terms of impacts upon buried organic remains, deposit modelling, baseline preservation conditions and any likely change.	Information is provided in paragraph 13.6.20 and 13.6.21 below.
Impacts upon such buried remains as may survive on site (notwithstanding it having been scraped previously) or surviving adjacent (impacts as resulting from drainage and construction) could be better explored and articulated with clear reference to relevant evidence.	Further information is provided within Sections 13.4 and 13.6 of this Chapter.
North-East Lincolnshire Council's Archaeological Advisors should be consulted.	The council's Historic Environment Record have confirmed that they have no comments to make in respect of the Proposed Development, which is not considered to have significant impact upon designated or non-designated assets within the area (comments recorded in the Planning Inspectorate EIA Scoping Opinion).

Summary of Key Changes to Chapter 13 since Publication of the Preliminary Environmental Information (PEI) Report

13.3.20 The PEI Report was published for statutory consultation in October 2019, allowing consultees the opportunity to provide informed comment on the Proposed Development, the assessment process and preliminary findings through a consultation process prior to the finalisation of this ES.

13.3.21 The key changes since the PEI Report was published are summarised in Table 13.5 below.

Table 13.5: Summary of key changes to Chapter 13 since publication of the PEI Report

SUMMARY OF CHANGE SINCE PEI REPORT	REASON FOR CHANGE	SUMMARY OF CHANGE TO CHAPTER TEXT IN ES
Addition of Historic Environment Record (HER) data to baseline information.	HER data previously unavailable.	Baseline (Section 13.4) updated to include the information collected from the HER. No change to the assessment conclusions.
Addition of ground investigation data to baseline information.	Results of ground investigations previously unavailable.	Baseline (Section 13.4) updated to include relevant information from the ground investigation results. No change to the assessment conclusions.
Addition of drainage information.	Response to questions raised during consultation (see Table 13.4 above).	Information provided on the potential for changes to drainage patterns outside the Main Development Area as a result of the Proposed Development. No change to the assessment conclusions.

13.4 Baseline Conditions

13.4.1 The numbers in the brackets e.g. (A1) refer to the assets listed in the gazetteers in Table 13A.1 Appendix 13A in ES Volume III (Document Ref. 6.4) and on Figure 13.1 in ES Volume II (Document Ref. 6.3).

13.4.2 The Site is largely flat and typically stands at around 2 m Above Ordnance Datum (mAOD). The Main Development Area comprises grassland and the pumping station access road. In the north-east of the Main Development Area there are some scattered scrubby vegetation and discrete sections of free-standing hedgerow. Drainage ditches run along the northern, eastern and southern perimeter of the Site. There are also a number of existing buried services associated with SHBPS within the Main Development Area.

Geology

- 13.4.3 The bedrock of the 1 km study area is dominated by White Chalk Subgroup, with the areas immediately surrounding the River Humber, including the Site, previously being warm chalk seas during the Cretaceous period. Overlaying this are Glacial Deposits overlain by Tidal Flats Deposits of clay and silt to the east (British Geological Survey website).
- 13.4.4 The soils within the 1 km study area consist of loamy and clayey coastal flats with naturally high groundwater (Land Information System website).

Designated Heritage Assets

- 13.4.5 There are no designated heritage assets within the Site.
- 13.4.6 There are three scheduled monuments located within 5 km of the Site.
- 13.4.7 There are seven listed buildings identified within a 5 km radius that have either a Grade I or Grade II* designation. There are also six Grade II listed buildings. All these buildings are located within existing settlements.

Heritage Baseline

- 13.4.8 The early prehistoric period is often less well represented in the archaeological record than later periods due to the hunter-gatherer societies that populated those periods, and thus there is no evidence of permanent settlement remains and assets are usually limited to find spots. The Neolithic (4000-2500BC) saw the adoption of farming, which led to a more sedentary lifestyle. The later prehistoric also saw the rise of funerary monuments while Bronze Age (2500 – 800BC) and Iron Age (800BC – AD43) assemblages highlight the production of metal objects. Limited quantities of unstratified flint artefacts recovered during excavation works (**E10**) carried out in 2008, adjacent to the southern edge of the Site, indicate some prehistoric activity in the area, although no surviving features or stratified artefacts were present. There are no assets of prehistoric date recorded within the 1 km study area.
- 13.4.9 The earliest recorded archaeological evidence within the 1 km study area is from the Roman period (AD43 – 410). A geophysical gradiometer survey (**E5**) carried out in 1997 on an area of known cropmark features (**A1**) on land north of the Old Fleet Drain, adjacent to the southern edge of the Site identified areas of heightened magnetic response, corresponding with the cropmark features. These were interpreted as sites of late Romano-British pottery manufacture. A subsequent fieldwalking survey (**E8**) recovered a substantial quantity of Roman pottery from a concentrated scatter near the western end of this area. Evaluation of this area undertaken in 2005 (**E9**) comprised a single 90 m long trench excavated across the area of the pottery scatter. A number of substantial Romano-British ditches produced pottery dating from the late 3rd to the late 4th century.
- 13.4.10 A subsequent archaeological excavation undertaken in 2008 (Field and McDaid, 2011; **E10**) revealed a multi-phase late Romano-British rural settlement (**A1**). Two main alignments of 3rd–4th century ditched field systems were recorded. The earlier field system was associated with a series of curvilinear enclosures, superseded by a large rectilinear building, or buildings. The building(s) appeared

to have burnt down as layers of fired clay and charcoal rich soils covering some of the postholes, which also contained burnt packing stones, indicated that these building(s) had burned down. A later field system was laid out on a different alignment slightly to the east of, and overlapping, the first. Identified features included beam slots identified in the western, suggesting occupation, and a possible levelling layer comprising a large spread of burnt material comprising large quantities of burnt clay, pottery and charcoal. Environmental evidence pointed to cultivation of cereal crops in the vicinity and processing of grain, but the main function of the site may have been seasonal animal husbandry.

- 13.4.11 Alluvial deposits were recorded, sealing the Romano-British settlement (Field & McDaid 2011, page 1), suggesting that the site was abandoned due to flooding. A few sherds of early medieval pottery were retrieved from the upper fills of two Romano-British features and at the base of the subsoil. Although this does not demonstrate early medieval occupation of the area, its presence is of interest, and may indicate some form of presence (Field & McDaid 2011, 23).
- 13.4.12 Archaeological monitoring (**E6**) of groundworks for a new fire water pond and haul road carried out in 1999 at Acordis Works Landfill No.3, located approximately 270 m south of the Site uncovered Roman finds but no associated features or deposits (Bracken, 1999). An initial watching brief maintained during the development of another landfill site at Courtalds in 1993 uncovered nothing of an archaeological nature.
- 13.4.13 There are no assets of early medieval date (AD410 – 1066) recorded within the 1 km study area. There is evidence that the surrounding area was in use during at least the later early medieval period. Several settlements are recorded in the Domesday Survey, 1086, including Stallingborough and Great Coates, both south-west of the Site. Greater evidence of the medieval period (AD1066 – 1500) is recorded in the 1 km study area. The closest to the Site is the suggested site of Houflet deserted medieval village (**A4**). The suggested point for this village is located 200 m to the south of the Site; however, this is not necessarily accurate. The village would have extended over a greater area. The potential of any remains of this village to survive within the Site is considered to be very limited due to later disturbance.
- 13.4.14 Further evidence of medieval activity was uncovered in the form of medieval finds during groundworks monitoring at the Acordis Works Landfill No.3, 500 m south of the Site.
- 13.4.15 The three scheduled monuments recorded within 5 km of the Site are also of medieval date. Stallingborough medieval settlement, post-medieval house and formal gardens (NHLE 1020423) is located approximately 3.5 km to the west of the Site. The settlement site includes earthworks and associated buried remains of part of medieval Stallingborough, and additionally the earthworks of a post-medieval manor house and associated formal gardens.
- 13.4.16 The second monument is the churchyard cross 20 m south of St Peter and St Paul's Church (NHLE 1020023), Stallingborough. This is located approximately 3.3 km to the west of the Site. The scheduling includes a medieval churchyard cross and associated buried remains. The cross is also Grade II listed. The cross

is cut off at 1.2 m with an inscribed sundial fixed to the top. This was added in 1725.

- 13.4.17 The third monument comprises two moated sites at Healing Hall (NHLE 1010947). These are located approximately 3.2 km to the south-west of the Site. The larger of the two is defined by a dry silted ditch whereas the smaller remains waterlogged. The smaller moat is located in the south-western corner of the larger moat.
- 13.4.18 The Church of St. Nicolas, Great Coates (NHLE 1379843) is a Grade I listed building located 3.2 km from the Site. It is of **high** significance due to its Grade I status. It is a parish church with tower built from ironstone, limestone, brick and elements of cobbles, flint and chalk which was first constructed in the 12th century. It has alterations from the 13th up until the 20th century. Its significance lies in its historic and archaeological interest, it has a long history as a parish church, being used as a focal point for community gatherings since the 12th century. It also has architectural interest due to its phases of development. The Church is located within an existing settlement to the north-west of Great Coates. The setting of the Church is the graveyard and the surrounding streets. When travelling south-east on Great Coates Road, the Church is viewed in context with SHBPS, the Site is therefore considered to form part of the setting of this Church.
- 13.4.19 Assets of post-medieval (AD1500 – 1900) date include drains/sluices (**A8 & A11**) and beacons for shipping (**A9 & A10**).
- 13.4.20 The Great Coates XXII.N.W. Ordnance Survey Map from 1887 shows that the Site was an area of fields located between South Marsh Road to the north of the Site and Oldfleet Drain to the south (refer to Plate 13B.1 within Appendix 13B presented in ES Volume III, Document Ref. 6.4). No buildings or other structures are shown suggesting that the area was agricultural land running to the coast at this time.
- 13.4.21 Eleven of the listed buildings identified within a 5 km radius of the Site date to the post-medieval period.
- 13.4.22 The closest listed structure to the Site is a Grade II listed house at no.129 Station Road, Stallingborough (**NHLE 1103469**). It is located 2.4 km to the south-west of the Site. The house is a single storey structure with attic and two full raking dormers, it was built in the 18th century from brick and has a rendered finish. The building is of **medium** significance due to its architectural interest and its remaining historic fabric. Its setting is considered to be influenced by its position on the street scene; it is located within an existing urban setting with views of agricultural fields to the north-west. The Site does not form part of its setting.
- 13.4.23 The second closest listed building is Manor Farmhouse, Station Road, Great Coates (**NHLE 1379884**). This Grade II listed building is located approximately 2.8 km from the Site and comprises a two-storey farmhouse built from brick, whitewashed and rendered. Although dating from the mid-18th century it has been altered, which can be seen on the western elevation, it also has a concrete tiled roof to main house and red pantiles to the outbuildings. The house has a T-shaped floor plan, there are 19th century sash windows and 20th century casement windows. The building has **medium** significance which lies in its

historic interest as an early 18th century farmhouse and through its phased development. Manor Farmhouse is located within an existing urban setting with residential dwellings to all sides. There is no intervisibility between the Site and this listed building. The setting is considered to be its immediate surroundings, its curtilage and the modern development found on the surrounding streets. The Site does not form part of its setting.

- 13.4.24 The next two listed buildings are located on Cooks Lane and have been grouped together due to their architectural form, close proximity and relationship to the Sutton Estate. Cordeaux House (**NHLE 1379419**) is a Grade II listed building built in 1820 for the Sutton Estate. No.19-22 Cooks Lane (**NHLE 1379429**) is also Grade II listed and date from a similar period. Both of these buildings have been designed to reflect the architectural style of the estate, using materials such as brick and incorporating features such as brick arches above windows and gables. Cordeaux House is a detached building built of red brick with orange brick dressings to bay window, it has white painted timber casement windows set within chamfered brick sills and a gabled wing which has a canted brick bay window with central cross windows with wooden mullion and transoms. No.19-22 Cooks Lane is also built of brick but have blue brick dressings to the two gables. The significance of these building lies within their architectural interest and historic interest as estate houses. They are of **medium** significance due to their Grade II listed status. Their significance lies in their architectural and historic interest as estate buildings and relationship with the development of the settlement. The listed buildings are located on Cooks Lane and surrounded by existing residential development, their setting is therefore considered to be the immediate urban context. There is no intervisibility or historical relationship between the listed buildings and the Site which is approximately 2.8 km north and the Site does not form part of their setting.
- 13.4.25 The listed buildings of the Manor House, including Stables and Coach House (**NHLE 1379430**) and Dovecote and Stables to the north-west of the Manor House (**NHLE 1379431**) are both located at the end of Cooks Lane and form a single group of buildings. These Grade II listed buildings are located 2.8 km to the south of the Site. The Manor House dates to the mid-18th century and is built of brick which has been stucco rendered on the southern and eastern elevations, it has sliding sash windows and a hipped slate roof. The house was altered and remodelled in 1878 and the 20th century. The stable and coach house range are located to the rear and now form part of the house. Its significance lies in its architectural and historic interest being an example of an 18th century farmhouse. The Dovecote and Stable are located to the north-west of the Manor House. The two-storey brick dovecote and single storey stable range date from the late 18th century. The stables are rectangular and sit along the northern edge of the property; the dovecote is square plan and located to the west end. Dovecote has a pyramidal roof and a single row of dove holes between sandstone ledges. Stable range has a gig house to right with double boarded doors. They are of **medium** significance and their significance is considered to relate to their historic interest due to their association with the Manor House as ancillary structures, they also have architectural interest in their form and construction. Manor House, the stable and dovecote are located on the northern fringe of Great Coates, the

buildings back onto agricultural fields to the north. There are views of fields, railway line and a major road junction to the north-east. Beyond this there are large scale industrial buildings to the north-east which includes the Site and SHBPS. The setting of these assets is considered to be its former farmland and its relationship with the surrounding farm buildings, and although the industrial development in the north-east can be viewed at a distance, the listed buildings are not experienced in the same context as the industrial development. Therefore, the Site does not form part of the setting of these listed buildings.

- 13.4.26 The Church of St. Peter and St. Paul, Stallingborough (**NHLE 1346978**) is designated Grade II* and is located 3.4 km from the Site. It represents a parish church with tower which was constructed between 1779 and 1791. Alterations have been carried out including windows, internal layout and alterations to the chancel in the early 20th century. Its significance lies in its architectural interest as an 18th century church and its historic interest due its position within the local community. It is of **high** significance due to its Grade II* status and its significance lies in its historic and architectural interest as an altered 18th century parish church. Its setting is defined as being its immediate curtilage including the church yard as well as the agricultural fields which surround the church. There are views of industrial development to the east which includes the existing SHBPS and the Site. There is limited visibility of the Site from the Church due to intervening infrastructure and tree coverage. However, due to the Church tower, the church is experienced within the surrounding countryside and would be viewed in context with the Proposed Development. The Site is considered to form part of the setting of this Church.
- 13.4.27 The Church of St. Michael, Little Coates (**NHLE 1379845**) is a Grade I listed building located approximately 4.1 km from the Site. It is of **high** significance due to its Grade I listed building status. Its significance lies in its historic and architectural interest. It is a stone built church with a tower, nave, aisle and chancel that has origins from the 14th century and has been altered in the 17th and 20th centuries. The church is located on the edge of the settlement of Little Coates and to the south of the settlement of Great Coates. The Site does not form part of the setting of this designated heritage asset.
- 13.4.28 Grimsby Haven Lock and Dock Wall (58 m long adjoining to west), The Docks, Grimsby (**NHLE 1379856**) is a Grade II* listed building located 4.7 km to the south-east of the Site. This asset is a lock basin and quayside wall. The asset is of **high** significance due to its Grade II* listed status, and its significance lies in its historic interest as the first dock in Grimsby. Works to construct the dock began in 1797 and comprises of vaulted (or hollow) walls which are wider at the base. Its setting is comprised of the immediate industrial surroundings and the relationship with the Humber Estuary to the north. The Site is located to the north-west and does not form part of the setting of this asset.
- 13.4.29 The Hydraulic Accumulator Tower (**NHLE 1379871**) to the west of the Dock Tower is a Grade II* listed building located 4.7 km to the south-east of the Site. It is a red/ brown brick structure with ashlar dressings and is 23.7 m tall. This tower was constructed to provide high pressure hydraulic power to move the gates to the east and west locks in the Royal Dock and also powered machinery located on the dockside. It was primarily built to replace the Dock Tower in 1892.

The asset is of **high** significance and its significance lies in its historic interest as an early example of a hydraulic system. Its setting is considered to be the immediate surrounds of the dock and the way that it is viewed in context with The Dock Tower, the docks and the Humber Estuary. The setting also encapsulates the industrial environs to the north-west, and therefore the Site forms part of the setting of the Hydraulic Accumulator Tower.

- 13.4.30 The Dock Tower, Royal Dock, Grimsby (**NHLE 1379870**) is a Grade I listed structure located at the Royal Dock in Grimsby. It is a tall structure which stands at 94 m in height and was constructed in 1852 for The Grimsby Dock Company. It is built of red brick with limestone to the base plinth and ashlar stone to the top with an iron lantern. The asset is of **high** significance due to its historic use as a tower to provide water pressure to power hydraulic machinery at the docks. Its setting is considered to be the Humber Estuary and surrounding docks with which it has a strong relationship. The wider surrounds contain industrial buildings to the north-west and commercial and residential to the south. The Site is 4.8 km to the north-west and forms part of the industrial setting of this asset.
- 13.4.31 The Lincolnshire XIV Ordnance Survey maps of 1905, 1932 and 1951 (refer to Plate 13B.2 within Appendix 13B in ES Volume III, Document Ref. 6.4) shows that the Site was still agricultural throughout the early 20th century with only minor additions including the Grimsby District Light railway (**A20**) which runs north-west to south-east to the west of the Site. This railway is still extant.
- 13.4.32 The existing SHBPS (0366/1/0) (**A13**) was developed between 1994 and 1999 resulting in a change within the local area. The power station is located to the immediate west of the Main Development Area. The current aerial photograph shows the Main Development Area (refer to Plate 13B.3 within Appendix 13B presented in ES Volume III, Document Ref. 6.4) as open ground though is bisected by an access road while ponds are evident to the north-east and south. It is bounded to the north and south by drains and to the west by the existing Power Station.
- 13.4.33 There is no apparent evidence for cropmarks which could indicate the presence of sub-surface archaeological features.
- 13.4.34 There is one listed building dating to the modern period within the 1 km study area, the former heavy anti-aircraft gun site (**NHLE 1403222**). The site of the anti-aircraft gun is a Grade II* listed building located near to Stallingborough and is 4.5 km from the Site. It is a former Heavy Anti-Aircraft (HAA) gun site located off Keelby Road that includes a World War 2 HAA gun site for 5.25 inch guns. The gun site comprises a command post with four gun emplacements forming an arc around it. Each gun emplacement includes an engine house and the base of the former crew rest shelter. There is the former guardhouse building and former generator house. The site is of **high** significance and its significance relates to its historic interest as it is one of only six surviving gun sites and retains its functional layout and some of the buildings. It has technological and historic interest due to its former use and is considered to be an example of where female soldiers had been stationed. Its setting is formed of the grounds in which it is situated and the surrounding agricultural fields. The Site does not form part of its setting due to distance, intervening infrastructure and tree coverage and it is not

experienced in the same context. Other assets relating to the World War 2 defences of area include a naval decoy (**A6**) and a pillbox (**A7**).

Conservation Area

13.4.35 The Great Coates Conservation Area is located to 2.65 km to the south of the Site and is within the North East Lincolnshire Council area. It was designated in 1972 and extended in 1993. It covers the north-west corner of the settlement and the historic core of Great Coates. The parish church is located to the south-west with the remainder of the buildings being predominantly residential and built off the main spine road through Great Coates. The asset is of **medium** significance as it is a conservation area.

Geotechnical Information and Potential for Archaeological Remains

13.4.36 A series of test pits and boreholes were undertaken within the Main Development Area in August and September 2019 (Wareing 2019 a & b). These investigations recorded the following strata: Made Ground (and occasionally topsoil) between 0.20 m and 3.05 m thick, overlying tidal flat deposits, generally encountered between 0 to 2 m Ordnance Datum (OD) and 8.05 m to 16.80 m thick. This stratum overlies glacial till, between c. -7 m to -11 m OD, which in turn overlies chalk, encountered at c. -19 m to -20 m OD (Wareing 2019b, 3).

13.4.37 Within the tidal flat deposits a horizon of peat was recorded within boreholes BH14, BH12, BH7 and BH8 (see ground investigation reports in Appendices 12B and 12C in ES Volume III (Document Ref. 6.4)). Within these, the peat had an upper level of between -5.95 mOD and -7.29 mOD and was between 0.50 m and 1.10 m thick. Within BH14 the peat directly overlies glacial till, at -6.64 mOD. In boreholes BH12, BH8 and BH7 the peat overlies a horizon of clay (tidal flat deposit), between 0.30 m and 0.65 m thick in BH7 and BH8 and 1.65 m thick in BH12, which in turn overlies glacial till (Wareing 2019b). A peat horizon was similarly recorded to the south of the Site, as part of the geotechnical investigations in **A1** (Field & McDaid 2011, 2). Here, a c.1 m thick peat layer was identified at depths of between 6.1 m and 7.2 m below the ground surface. Subsequent investigations recorded the upper surface of the peat horizon at or below -3 mOD, located at a similar level to a peat band further up the Humber Estuary that has been radiocarbon dated at 3000BC (calibrated), 'indicating that the layer formed above an earlier ground surface of late Mesolithic or early Neolithic date' (*ibid*).

13.4.38 The ground investigation within the Main Development Area (Wareing 2019 a & b) recorded Made Ground with variable thickness in the majority of test pits and boreholes. Of these, some were identifiably modern deposits (BH13, BH14, TP7, TP9, TP11, TP12, CPT6, CPT9, and WS10), and directly overlie tidal flat deposits. In the southern part of the Main Development Area the base of these deposits went down to 1.28 mOD, and further north in the Main Development Area, the base was recorded between 1.22 m and 2.30 mOD. In these areas, therefore, archaeological horizons that post-date the tidal flat deposits have been removed by previous disturbance.

13.4.39 Elsewhere recorded Made Ground deposits were not identifiably modern (they did not yield modern remains). However, they are considered to represent the disturbance undertaken at the Site during the construction of the SHBPS (see Plate 4 in Appendix 13B in ES Volume III, Document Ref. 6.4). This is likely to have removed any archaeological remains in this location, if they were ever present. There is a band across the Main Development Area at the proposed location of the fuel bunker and the western part of the boiler hall (see Figure 4.1 in ES Volume II (Document Ref. 6.3)) where no Made Ground or topsoil was recorded (BH03, BH04, BH06, WS01-WS04, and CPT01-CPT04). The first deposit encountered was tidal flat deposits. However, BH05 in the centre of this area had a 1.3 m layer of reworked tidal flat deposit, described as a 'placed fill'. This indicates that the tidal flat deposits had been removed and then later reinstated. This is consistent with the evidence for a soil mound in this area during SHBPS construction (see Plate 4 in Appendix 13B in ES Volume III (Document Ref. 6.4)) with mound material redeposited across this part of the Main Development Area. In addition, during the geological Engineers walkover of the site, a small amount of concrete rubble was noted on the main grassed area, south of the central access road. It is likely that this, together with the hummocky ground relates to the presence of materials arising from the construction of the SHBPS in the 1990s. Therefore, although this area shows tidal flat deposits, it is considered that these have been reinstated following the construction of the SHBPS.

Future Baseline

13.4.40 The future baseline is not expected to change from the existing baseline described above.

13.5 Development Design and Impact Avoidance

13.5.1 The development design will not physically impact any previously recorded heritage assets, and there are no recorded assets within the Site boundary. Therefore, there has been no amendment to the design for heritage assets.

13.6 Likely Impacts and Effects

13.6.1 This section identifies the potential impacts resulting from the Proposed Development. The magnitude of impacts is defined, and the significance of effects is determined in accordance with the identified methodology presented in Section 13.3 above.

The Proposed Development

13.6.2 The impacts and effects of the Proposed Development are described below.

Construction

13.6.3 The construction works for the Proposed Development will include earthworks and excavations, construction of the new buildings and stacks, movement of construction traffic and machinery, potential noise and dust, and temporary lighting during construction.

13.6.4 Construction impacts on heritage assets are as outlined below.

Scheduled Monuments

- 13.6.5 There are no effects on the significance of the scheduled monuments within the wider, 5 km study area, due to the distance of assets from the development and intervening screening by buildings and vegetation.

Listed Buildings

- 13.6.6 The listed buildings located within the 5 km study area are experienced in a relatively flat topography and some are viewed in context with the existing SHBPS and neighbouring industrial buildings. The following assessment has been carried out through a site visit and analysing the ZTV (see Chapter 11: Landscape and Visual Amenity).
- 13.6.7 129 Station Road (**NHLE 1103469**) is a Grade II listed building of medium significance. The significance of the building lies in its architectural and historic interest associated with its early construction date and vernacular appearance. Its setting within an existing urban settlement contributes to its significance. The construction of the Proposed Development would result in no impact upon the significance as it will not change the setting of the asset.
- 13.6.8 Manor Farmhouse (**NHLE 1379884**) is a Grade II listed building of medium significance. Its significance comprises of historic interest as an early 18th century farmhouse. Its setting within an existing urban environment means that the construction of the Proposed Development will have no impact upon its setting.
- 13.6.9 Cordeaux House (**NHLE 1379419**) and no.19-22 Cooks Lane (**NHLE 1379429**) are Grade II listed buildings of medium significance. Their significance relates to their architectural and historic interest as estate houses built for the Sutton Estate. The construction of the Proposed Development will have no impact upon their significance or setting as the setting of these listed buildings is formed of their immediate urban context.
- 13.6.10 Manor House, including Stables and Coach House (**NHLE 1379430**) and Dovecote and Stables to the north-west of the Manor House (**NHLE 1379431**) are all Grade II listed buildings of medium significance. Their setting has been assessed as being the surrounding farmland and the former farmyard. The Site does not form part of their setting and therefore there will be no impact upon their significance due to the construction of the Proposed Development.
- 13.6.11 The former heavy anti-aircraft gun site (**NHLE 1403222**) is a Grade II* listed building located over 3 km from the Site. It is of high significance and its significance lies in its historic interest as a former use and history. There will be no impact on the significance of the asset due to the Site not forming part of its setting.
- 13.6.12 Church of St. Michael, Little Coates (**NHLE 1379845**) is a Grade I listed building of high significance. The significance of the building lies in its architectural and historic interest associated with its early construction date and vernacular appearance. Its setting within an existing urban settlement contributes to its significance. The construction of the Proposed Development would not change the setting of the asset and have no impact upon its significance.

- 13.6.13 Grimsby Haven Lock and Dock Wall, Grimsby (**NHLE 1379856**) is a Grade II* listed buildings of high significance. The significance of the building lies in its historic interest as the first dock in Grimsby. Its setting within the immediate industrial development of Grimsby Docks will not be changed by the construction of the Proposed Development.
- 13.6.14 The Hydraulic Accumulator Tower (**NHLE 1379871**), is a Grade II* listed building of high significance. The significance of the building lies in its historic interest as an early example of a hydraulic system. The setting of the tower within the immediate industrial development of Grimsby Docks and its relationship with the Humber Estuary will be unchanged as a result of the construction of the Proposed Development, therefore there will be no impact.
- 13.6.15 The Dock Tower, Royal Dock, Grimsby (**NHLE 1379870**) is a Grade I listed building of high significance. The significance of the building lies in its historic interest as an early example of a system to provide water pressure to the power hydraulic machinery on the docks. The setting of the tower within the immediate industrial development of Grimsby Docks and its relationship with the Humber Estuary will be unchanged as a result of the construction of the Proposed Development, therefore there will be no impact.
- 13.6.16 The Church of St. Nicolas, Great Coates (**NHLE 1379843**) is of high heritage significance due to its Grade I listed status. It is located to the south-west of the Site. Although located 3.5 km away, the existing SHBPS is viewed in the same context as the Church when approaching Great Coates from the north-west. At this asset the Proposed Development will also be viewed in the same context when constructed to the east of SHBPS. Due to the existing industrial setting to the north-east, and following a site visit and analysing the ZTV the construction of the Proposed Development is assessed to result in very low magnitude of impact to the setting of the Church of St. Nicolas as it will have a negligible effect on the significance of the designated heritage asset. There will be little effect upon its setting and no change in the ability to understand its significance. On an asset of high significance (heritage value), the significance of the effect is assessed as being a minor adverse which is not significant.
- 13.6.17 The Grade II* Church of St. Peter and St. Paul in Stallingborough (**NHLE 1346978**) is located 3.5 km to the south-west of the Site. The level of impact will be a very low magnitude as any change to the setting of the Church from the Proposed Development will be low. The Proposed Development will be visible from the tower of the church; however, this will be a continuation of the existing industrial landscape located to the east of the Church. On the asset of high significance (heritage value), the significance of the effect will be minor adverse which is not significant.

Conservation Area

- 13.6.18 The Great Coates Conservation Area is of medium significance. There will be no impact upon the significance of the asset as the setting of the asset will not change and the understanding of the asset will be unaffected by the proposed extension to the industrial development to the north of Great Coates.

Non-Designated Archaeology

- 13.6.19 There is a very limited potential for archaeological deposits to survive across the northern part of the Main Development Area between the western boundary of the Main Development Area and the location of the former pond (now infilled) because this area has been subject to previous disturbance during construction of SHBPS. Although analysis of the geotechnical investigations shows only limited evidence for Made Ground in this area, as described in paragraph 13.4.39 above, it is likely that the first layer of tidal flat deposits is redeposited. The potential for archaeological deposits to survive is further limited by the lack of topsoil, suggesting that the level at which archaeological remains would be expected has been removed when the area was stripped to construct SHBPS and the associated storage mound. The excavation of the archaeological site to the south (A1) also showed that the remains were located below the topsoil at a relatively shallow level, cut into the clay (Field & McDaid 2011). Archaeological remains such as pits and post-holes at this site were also at a shallow depth, with most surviving to less than 10 cm in depth. While some ditches extended to a greater depth, most were no more than 1 m in depth (*ibid.*). This indicates that if any archaeological remains ever survived within the Main Development Area, they would have been removed when the area was stripped to construct SHBPS and the associated storage mound. Therefore, there will be no impact on buried archaeological remains.
- 13.6.20 Archaeological remains outside of the boundary of the Main Development Area will not be affected by changes in drainage patterns, as there will not be any change to them. Paragraph 14.7.25 of Chapter 14: Water Resources, Flood Risk and Drainage states *“In order to ensure that flood risk is not increased... surface water discharge of surface water runoff from the Main Development Area will be restricted to the existing greenfield runoff rate to prevent an increased risk of flooding downstream. The Proposed Development includes an attenuation pond as a surface water attenuation solution, to ensure water runoff rates assessed and presented within the FRA (Appendix 14A of the ES Volume III Document Ref. 6.4) are not exceeded.”* This confirms that there will be no change to surface water runoff from the existing situation. In addition, the residual effect on drainage during both construction and operation is not considered to be more than minor adverse (see Table 14.7).
- 13.6.21 A horizon of peat was recorded across the centre of the Main Development Area, at a depth of -5.95 mOD and -7.29 mOD. There is no impact anticipated upon the peat deposits due to their depth.

Operation

- 13.6.22 The operation of the Proposed Development will result in an increased amount of traffic movements in the area and within the Main Development Area. The Proposed Development also has the potential for increased noise and light levels within the Main Development Area. Due to its industrial context, this will not result in a perceptible increase over the existing situation; therefore, there will be no impact on the significance of the assets identified.

Decommissioning

- 13.6.23 Decommissioning impacts will be temporary and will be similar to construction impacts (movement of traffic and machinery, potential for noise and dust and use of temporary lighting). The impacts will not be greater than those reported during construction (not significant).
- 13.6.24 Removal of above ground structures may reduce impacts on the setting of designated assets. The removal of the structures on the Main Development Area will reduce the impact upon the setting of the Church of St. Nicolas, Great Coates (NHLE 1379843) and the Church of St. Michael, Little Coates (NHLE 1379845).

Comparison of the Proposed Development and Consented Development

- 13.6.25 The impacts and effects of the Proposed Development compared to the impacts and effects of the Consented Development are described below.

Construction

- 13.6.26 The Additional Works required for the Proposed Development are insignificant relative to the works that comprise the Consented Development. Although additional baseline data has been obtained since the Consented Development ES was published, the predicted impacts as a result of the Proposed Development are the same as those that would be associated with the Consented Development because the nature and overall scale of construction activity required for the Proposed Development (with the potential to impact on heritage assets, including impacts on setting) would be the same as the Consented Development.
- 13.6.27 As such, the construction of the Proposed Development is predicted to have no additional effects compared to the construction of the Consented Development.

Opening and Operation

- 13.6.1 The additional aspects of the Proposed Development are insignificant relative to the Consented Development, and the traffic, noise and light impacts associated with the Proposed Development will be the same as those associated with the Consented Development.
- 13.6.2 As such, the operation of the Proposed Development is predicted to have no additional effects compared to the operation of the Consented Development.

Decommissioning

- 13.6.3 The nature and scale of decommissioning activities required for the Proposed Development would be the same for the Proposed Development as for the Consented Development, so the decommissioning of the Proposed Development is predicted to have no additional impact compared to the decommissioning of the Consented Development.

13.7 Mitigation and Enhancement Measures

- 13.7.1 No mitigation is required for designated or non-designated heritage assets.
- 13.7.2 Due to the nature of the likely effects on built heritage there are no mitigation measures available; however, mitigation is not considered necessary as the predicted effects are not significant.

13.8 Limitations or Difficulties

13.8.1 No other limitations or difficulties have been identified during this assessment.

13.9 Residual Effects and Conclusions

- 13.9.1 The historic environment is characterised by small built up settlements. The significance of the assets within these settlements will not be adversely affected by the Proposed Development.
- 13.9.2 Impacts to the historic environment resulting from the Proposed Development are limited to assets located on the edge of the nearby settlement and high level designated heritage assets which have taller elements, such as churches. There will be no effects on any of the assets identified as a result of the Proposed Development during construction, operation or decommissioning. This includes: 129 Station Road, Stallingborough (**NHLE 1103469**), Manor House, including Stables and Coach House (**NHLE 1379430**) and Dovecote and Stables to the north-west of the Manor House (**NHLE 1379431**); Manor Farmhouse, Station Road, Great Coates, Grimsby (**NHLE1379884**); Cordeaux House, 15 Cooks Lane, Great Coates, Grimsby (**NHLE 1379419**); No.19-22 Cooks Lane, Great Coates, Grimsby (**NHLE 1379429**); The Manor House including stables and coach house, Cooks Lane, Great Coates (**NHLE 1379430**); Dovecote and Stable to north-west of Manor House, Great Coates, Grimsby (**NHLE 1379431**), Former heavy anti-aircraft gun site, near Stallingborough (**NHLE 1403222**); Church of St. Nicolas, Great Coates, Grimsby (**NHLE 1379843**); Grimsby Haven Lock and Wall, Grimsby (**NHLE 1379856**); Hydraulic Accumulator Tower (**NHLE 1379871**); and The Dock Tower (**NHLE 1379870**).
- 13.9.3 There will be a minor adverse (not significant) effect upon the Church of St. Peter and St. Paul (**NHLE 1379845**) during construction of the Proposed Development due to the Church's location on the edge of Stallingborough which is to the west of the Site. Its location results in the Site forming part of the setting of the designated heritage asset and the Proposed Development will change the setting by the addition of a new structure. The Proposed Development will have a negligible effect on the significance of the asset and will not result in a change in the understanding of the asset.
- 13.9.4 There will be a minor adverse (not significant) effect upon the Church of St. Nicolas, Great Coates; (**NHLE 1379845**) during construction of the Proposed Development due to the Church's location on the edge of Little Coates. Its location results in the Site forming part of its setting and the Proposed Development will alter the setting through the construction of a new structure. Although the Site forms part of the setting, the Proposed Development will not affect the significance of the asset.
- 13.9.5 In line with NPS EN-1 Paragraph 5.8.14 (see paragraph 13.2.12 above) and Paragraph 193 of NPPF (see paragraph 13.2.18 above), and as detailed in paragraph 13.3.13 of this chapter, these effects are considered to constitute less than substantial harm.

Table 13.6: Summary of residual cultural heritage effects

REF NO.	ADDRESS	ASSET TYPE	GRADE	HERITAGE SIGNIFICANCE	MAGNITUDE OF IMPACT (INCORPORATING ANY EMBEDDED MITIGATION)	EFFECT	PROPOSED MITIGATION	RESIDUAL EFFECT
1346978	Church of St. Peter and St. Paul, Stallingborough	Listed Building	II*	High	Very low	Minor adverse (not significant)	None	Minor adverse (not significant)
1379843	Church of St. Nicolas, Great Coates, Grimsby	Listed Building	I	High	Very low	Minor adverse (not significant)	None	Minor adverse (not significant)

13.10 References

British Geological Survey website [bgs.ac.uk/geologyofbritain](https://www.bgs.ac.uk/geologyofbritain)

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