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14. Cultural Heritage

14.1 Introduction

14.1.1 This chapter of the Environmental Statement (ES) addresses the potential effects of the construction, operation (including maintenance) and decommissioning of the Proposed Development on the site of the West Burton Power Station on cultural heritage. The assessment considers:

- the present-day and future baseline conditions during construction and at opening; and
- the effects of construction (and eventual decommissioning) of the Proposed Development on cultural heritage assets; and
- the potential effects of the eventual decommissioning of the Proposed Development.

14.1.2 The assessment of cumulative effects on cultural heritage assets associated with the Proposed Development and other committed developments in the vicinity are described in **Chapter 16: Cumulative and Combined Effects**.

14.1.3 This chapter is supported by an Outline Written Scheme of Investigation (**Application Document Ref. 7.9**) and **Figures 14.1** and **14.2** (ES Volume III).

14.2 Legislation, Planning Policy and Guidance

Legislative Background

14.2.1 Relevant legislation considered as part of this cultural heritage impact assessment comprises the following:

- Ancient Monuments and Archaeological Areas Act (1979) (Ref 14-1);
- National Heritage Act (1983) (Ref 14-2) (legislation that details how Britain's national heritage assets are managed and protected); and
- Planning (Listed Buildings and Conservation Areas) Act (1990) (Ref 14-3).

The Ancient Monuments and Archaeological Areas Act (1979)

14.2.2 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 (Ref 14-4) and the National Planning Policy Framework (NPPF) (Ref 14-5).

Planning (Listed Building and Conservation Areas) Act 1990

- 14.2.3 The Planning (Listed Buildings and Conservation Areas) Act 1990 (the Act) (Ref 14-3) sets out the principal statutory instruments which must be considered in the determination of any application affecting either Listed Buildings or Conservation Areas.
- 14.2.4 Section 66 of the 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 Act, a Listed Building includes any object or structure within its curtilage.
- 14.2.5 Recent case law makes it clear that the duty imposed in the Act 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 give particular weight to the desirability of avoiding that harm. There is still a requirement for a planning balance, but it must be informed by the need to give considerable weight to the desirability of preserving the asset and its setting, including those within a Conservation Area.

Planning Policy Context

Overarching National Policy Statement for Energy (EN-1)

- 14.2.6 Overarching National Policy Statement (NPS) for Energy (EN-1) (Department for Energy and Climate Change, 2011) (Ref 14-6) 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.
- 14.2.7 EN-1 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. 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.
- 14.2.8 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 EN-1 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).

- 14.2.9 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.
- 14.2.10 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 on the heritage asset. As a minimum, the applicant should consult the relevant Historic Environment Record (HER).
- 14.2.11 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 (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 (paragraph 5.8.10).
- 14.2.12 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. 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).
- 14.2.13 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, and that where appropriate, such work should be carried out in accordance with a Written Scheme of Investigation (WSI) that has been agreed in writing with the local authority (EN-1 paragraph 5.8.21).
- 14.2.14 **Table 14-1** provides a summary of relevant NPS advice and signposting to where matters are considered within this chapter.

Table 14-1: Summary of relevant NPS advice regarding historic environment

Summary of NPS	Consideration within the Chapter
NPS EN-1	
<p>Paragraph 5.8.8 states: “As part of the ES (see Section 4.2) the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the applicant should have consulted the relevant Historic Environment Record (or, where the development is in English or Welsh waters, English Heritage or Cadw) and assessed the heritage assets themselves using expertise where necessary according to the proposed development’s impact.”</p>	<p>Section 14.4 and Section 4 of Appendix 14A: Desk Based Assessment (ES Volume II).</p>
<p>Paragraph 5.8.9 states: “Where a development site includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.”</p>	<p>Appendix 14A: Desk Based Assessment (ES Volume II) and Section 14.4.</p>
<p>Paragraph 5.8.10 states: “The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting document”.</p>	<p>Section 14.6 and Section 14.7 describe further investigation of archaeological potential which will be carried out in accordance with the Outline Written Scheme of Investigation (Application Document Ref. 7.9).</p>

National Planning Policy Framework (NPPF)

14.2.15 The revised National Planning Policy Framework (NPPF) (Ref 14-5) was published in February 2019, replacing earlier versions published in July 2018 and March 2012 and sets out the Government’s planning policies for England and how

these should be applied to contribute to the achievement of sustainable development.

14.2.16 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 an asset because of its heritage interest. This 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). 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).

14.2.17 Paragraphs 193 to 196 of the NPPF introduce the concept 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 advises that great weight should be given to an asset’s conservation and the more important the asset, the greater the weight should be. Distinction is drawn between those assets of exceptional interest (e.g. grade I and grade II* listed buildings), 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).

14.2.18 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). Distinction is made between those non-designated assets of archaeological interest which are demonstrably of equivalent significance to scheduled monuments they should be considered against policies for designated heritage assets (footnote 63).

14.2.19 Guidance on the application of heritage policy within the NPPF is provided by on-line Planning Practice Guidance (Ref 14-7) and best practice advice is provided by a series of Historic England Advice notes (Ref 14-8 and 14-9).

Local Planning Policy

14.2.20 Bassetlaw District Local Development Framework Core Strategy and Development Management Policies (Ref 14-10) was adopted in 2011 and sets out the policies for Bassetlaw to 2028. The policies that are relevant to cultural heritage include Policy DM8: The Historic Environment and Policy DM10: Renewable and Low Carbon Energy, which link to strategic objectives identified in Bassetlaw District Council's (BDC) Core Strategy (Spatial Objective SO9 – to protect and enhance Bassetlaw's heritage assets).

14.2.21 Part B of Policy DM8: The Historic Environment states that *“There will be a presumption against development, alteration, advertising or demolition that will be detrimental to the significance of a heritage asset.”*

14.2.22 The setting of an asset is an important aspect of its special architectural or historic interest and proposals that fail to preserve or enhance the setting of a heritage asset will not be supported. Where appropriate, regard shall be given to any approved characterisation study or appraisal of the heritage asset. Development proposals within the setting of heritage assets will be expected to consider: scale, design, materials, siting, and views away from and towards the heritage asset.

14.2.23 BDC is currently in the early stages of preparing a new Local Plan for the District and began consulting on a Draft Bassetlaw Local Plan (Ref 4-11) in January 2019. The policies that are relevant to cultural heritage include Policy 21: Historic Environment which states:

“Support will be given for proposals that conserve or enhance the significance of the District's heritage assets or their settings.”

This links to Strategic Objective 5: Conserve the District's distinctive historic and natural environments.

14.2.24 Policy 4 of the Sturton Neighbourhood Plan (Ref 14-12) relates to the Historic Environment. It states:

“Policy 4: Protecting the Historic Environment 1. Planning applications will be supported where they preserve or enhance conservation areas, listed buildings and other heritage assets as set out in Appendix K and where they comply with the following criteria: a) The development or alteration proposed does not have a

detrimental effect on the heritage asset concerned; and b) The heritage asset is sensitively and fully incorporated into the development proposal concerned.”

14.2.25 Current local planning policy for Lincolnshire is provided by the Central Lincolnshire Local Plan which was adopted in 2012 and replaced the West Lindsey Local Plan (Ref 14-13). Policy LP25: The Historic Environment is relevant as the Proposed Development is close to the boundary of West Lindsey District Council’s (WLDC) jurisdiction, where there are cultural heritage assets. It states that development proposals should seek to protect and conserve the historic environment of Central Lincolnshire. Where development would affect the significance of a heritage asset, the following must be undertaken proportionately:

- assess the significance and setting of said asset;
- identify impacts to that significance; and
- provide justification for proposed works.

14.2.26 It goes on to clarify that unless the proposed development meets tests set out in the NPPF, permission will only be granted if that development does not harm the significance or setting of heritage assets. Proposals will be supported which conserve or enhance the significance of heritage assets.

Other Guidance

National Planning Practice Guidance

14.2.27 The Planning Practice Guidance (PPG) (14-7) is a government produced interactive on-line document that provides further advice and guidance that expands the policy outlined in the NPPF (14-5). 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).

14.2.28 The PPG states that in relation to setting, 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).

14.2.29 The PPG discusses how to assess if there is substantial harm. It clarifies 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).

14.2.30 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, rather than 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 Planning Guidance Advice Notes (2015)

14.2.31 Historic England has 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) (Ref 14-8) and GPA3 The Setting of Heritage Assets (July 2015) (Ref 14-9).

14.2.32 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).

14.2.33 GPA3 provides advice on the setting of heritage assets. Paragraph 3 differentiates the concept of setting from other concepts such as curtilage, character and context. The extent and definition of setting is set out in paragraph 4 within a series of bullet points and the relationship of setting to views is explored in paragraph 5 to 8. 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.

14.2.34 The contribution of setting to the significance of an asset is often expressed by reference to views and GPA3 in paragraph 6 identifies those views such as those that were designed or those that were intended, that contribute to understanding the significance of assets. An approach to the assessment heritage significance within views is provided in the Historic England guidance *'Seeing the History in the View'* (2011) (Ref 14-14).

14.2.35 The relationship between setting and significance is set out in a series of bullets at paragraph 9 covering factors such as 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.

14.2.36 Historic England advocates a stepped approach to assessment. Proportionality is a key consideration in the NPPF (189) (Ref 14-5) and Historic England guidance (Ref 14-9), at Step 1 of the assessment process, suggest various approaches by which there can be selection of those assets for assessment. In assessing the extent to which setting may contribute to the significance of an asset, Step 2; Historic England, set out a number of attributes including the asset's surroundings and the experience of the asset. Step 3 relates to assessment of the effect and identifies those attributes of a development such as location, form, appearance and permanence that require consideration. Step 4 relates to '*maximising enhancement and minimising harm*' and there are various ways by which development can enhance an asset's setting, for instance through replacement or removal of detrimental features or introducing new features or views that add to the public appreciation, including better access. Harm can be reduced by relocation of a development, changes to design or management measures. Whilst screening has a part to play in reducing harm, screening can itself be harmful and needs careful design (paragraph 29). The final step of the process is documenting and monitoring outcomes, and learning from past experiences.

14.3 Assessment Methodology and Significance Criteria

Consultation

14.3.1 The consultation undertaken with statutory consultees to inform this chapter, including a summary of comments raised *via* the formal Scoping Opinion (**Appendix 1B** (ES Volume II)) and in response to the formal consultation is summarised in **Table 14-2**.

Table 14-2: Consultation summary table

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
Nottinghamshire County Council	9 May 2017 (response to Scoping Opinion)	Section 5.9 Cultural Heritage of the EIA Scoping Report dated April 2017 notes that there are clusters of designated built heritage in nearby villages and has identified two churches as the nearest. It also notes the designated conservation area of Saundby. It would be advisable to ensure that the consideration of impacts on the settings of nearby designated built heritage assets	<p>Impacts on the settings of the nearby designated built heritage assets has taken into account viewpoints presented as Figures 10.6–10.20 and the photomontages presented as Figures 10.21–10.40 (ES Volume III), and the findings of the LVIA presented in Chapter 10: Landscape and Visual Amenity.</p> <p>The assessment presented herein has been corroborated by the Zone of Theoretical Visibility (ZTV) (Figure 10.4 (ES Volume III)) which takes into account proposed final site levels and the existing terrain of the area to determine the potential visibility of the Proposed Development from the surrounding area, using ‘worst-case’ assumptions regarding parameters defined in Table 4-1 and 4-2 in Chapter 4: The Proposed Development (Section 14.3).</p> <p>The EIA considers the BDC adopted criteria and policies for non-designated heritage assets. The factors that contribute to the significance of West Burton Power Station have been identified in the desk-based assessment report (refer to Appendix 14A: Desk Based Assessment (ES Volume II)).</p> <p>An assessment of the impacts and effects of the Proposed Development on West Burton Power Station’s heritage value has been made as part of the assessment included herein.</p>

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>utilises viewpoints within a Landscape and Visual Impact Assessment. A failure to ensure that the Cultural Heritage EIA methodology engages with the LVIA could lead to the requirement for further information to support or demonstrate the conclusions reached in the EIA Cultural Heritage chapter.</p> <p>Section 5.9 of the EIA Scoping Report does not reference non-designated heritage assets.</p>	

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>It is important that the EIA takes consideration of the BDC adopted criteria and policies for non-designated heritage assets. West Burton Power Station is identified as a non-designated heritage asset by BDC and has an entry on the Nottinghamshire County Council (NCC) HER. It is crucial to the understanding of the impacts of the proposals that the heritage significance of the power station is acknowledged and considered</p>	

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		within the EIA Cultural Heritage chapter.	
West Lindsey District Council	24 May 2017 (response to Scoping Opinion)	<p>The ES should consider the impact on heritage assets within West Lindsey and their setting. Within 15km of the Site:</p> <ul style="list-style-type: none"> • Scheduled Monuments (SMs), Grade I and II* Listed Buildings (LBs), Historic Battlefields and Registered Parks and Gardens (RPGs) <p>Within 5km of the</p>	<p>The potential impacts of the Proposed Development on heritage assets within West Lindsey and their setting have been assessed. Full details provided within Appendix 14A: Desk Based Assessment (ES Volume II) with assessment of impacts on relevant heritage assets described in Section 14.6. This includes Scheduled Monument of Segelocum Roman town.</p> <p>Given the existing mass and scale of West Burton A (WBA) and West Burton B (WBB) Power Stations and the much smaller scale of the Proposed Development, coupled with the limited views that would be offered to the Proposed Development, taking account the ZTV (Figure 10.4 in ES Volume III) a 15km search radius was considered disproportionate for setting impacts. The search area for designated assets was thus taken as 3km, with a wider zone up to 5km. Figure 14.2 (ES Volume III) illustrates those assets considered within the study area.</p>

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>Site:</p> <ul style="list-style-type: none"> • Visual impacts on Grade II LBs and Conservation Areas (CAs) Locally-listed parks and gardens of demonstrably equivalent significance to a designated asset (and potentially sensitive to visual impacts) <p>These include Listed Buildings to the west of Bridge Street and Lea Road, Gainsborough including Gainsborough</p>	

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>Bridge itself and its former Toll Lodge Buildings. Adjacent to the east of the River Trent is the Gainsborough Riverside Conservation Area. The assessment should be supported by the Zone of Theoretical Visibility (ZTV) and representative photomontage viewpoints.</p>	
Historic England	15 May 2017 (written response to Scoping Opinion)	A staged process of archaeological investigation should work from consultation with the County	<p>A desk based assessment has been carried out in order to establish the known cultural heritage resource (refer to Appendix 14A: Desk Based Assessment (ES Volume II)).</p> <p>Mapping palaeochannels: Geotechnical information supported by a site visit indicates that the Site and land to the west and north is covered by Pulverised</p>

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>Council HER and the expert advice of the County Council Archaeologist.</p> <p>Such records as survive of the site condition prior to previous works and any on-site investigations made at that time should be consulted.</p> <p>Mapping of palaeochannels from air photographic and Lidar sources has been carried in Nottinghamshire and may provide targets for investigation (this is available through the HER.</p>	<p>Fuel Ash (PFA). This extends to a depth of between 8m and 13m below ground level (bgl) in the area of the Proposed Development and to the north. This presents an entirely man-made landform and mapping using lidar and aerial photographs would not provide identification of any palaeochannels beneath that depth of PFA.</p> <p>This covering of PFA also renders geophysical survey techniques unproductive and introduces significant barriers to trial trenching, both logistically and from a health and safety perspective.</p> <p>Available geotechnical site observations (December 2017) have been used in considering the potential of the Site.</p> <p>Recommendations have been made in the mitigation section (Section 14.7) for assessing the Site's archaeological potential, in particular relating to palaeochannels, during subsequent pre-construction site investigations at the detailed design stage.</p> <p>Cultural Heritage Desk Based Assessment (Appendix 14A (ES Volume II)) presents the findings of the archaeological appraisal of the Site and sets out proposals for a programme of archaeological monitoring and environmental sampling proposed as part of future pre-construction site investigation works within the Outline Written Scheme of Investigation (Application Document Ref. 7.9). This is proposed to be secured by a Requirement of the draft DCO (Application Document Ref. 2.1).</p> <p>The search area for designated assets was taken as 3km, due to the scale of the Proposed Development. Designated assets outside this area (up to 5km) have been considered where there was the potential for them to be affected by</p>

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>Existing borehole survey data should be assessed and where necessary augmented to provide (alongside other sources such as geophysical survey), a deposit model of the development area. Where new engineering boreholes are planned their methodology should be integrated with archaeological requirements from an early stage. With the benefit of an understanding of the site history</p>	<p>elements of the Proposed Development, as illustrated in Figure 14.2 (ES Volume III).</p> <p>Both Historic England and NCC archaeologist were consulted on the proposed approach during formal consultation, including a further on-site meeting with Historic England to discuss the strategy and timing of further archaeological evaluation (6 November 2017). It was agreed that recommendations should be made in the mitigation section of Chapter 14: Cultural Heritage (Section 14.7) to enable subsequent site investigations to further assess the Site's archaeological potential, in particular relating to palaeochannels. A strategy for evaluating the archaeological potential of the Site is therefore provided in the Outline Written Scheme of Investigation (Application Document Ref. 7.9).</p>

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>and deposit model targeted trial trenching can be focussed on locations where archaeological potential is likely to survive, past experience at Willington Power Station suggests substantial cut features can survive previous operations in this environment. Particular attention should also be paid to the potential for prehistoric timber survival (e.g. boats) in and alongside former channels.</p> <p>Visual impacts</p>	

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>upon the significance of designated heritage assets should be assessed within a robust and structured setting assessment. We recommend the use of Historic Environment Good Practice Advice Note 3 <i>Setting of Heritage Assets</i>. We note that the existing A and B stations represent a significant intrusion into the setting of nearby assets and as such any study should start from a clear</p>	

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>understanding of the present position as baseline to which station C will add. In this case we are content with the 5km radius scope for designated heritage asset setting assessment proposed in para 5.9.6. In some views we anticipate the additional impact may be slight, however efforts should be made to establish the effect on current surviving sight lines that support significance, for instance such as</p>	

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>may exist between Lea and Bole.</p>	
<p>Historic England</p>	<p>13 October 2017 (response to Stage 1 formal consultation on PEI Report)</p>	<p>Historic England advises that some of the grade II listed buildings may require further assessment to determine if they can readily fall into the medium category of significance without further consideration of significance and group value.</p> <p>They draw attention to the additional view on the horizon which will be occupied by the</p>	<p>The factors which define the significance of the assets located in Bole have been considered more holistically within the wider context of the village, recognising the relationship with each other, as well as their setting, as opposed to an approach which favours site specific analyses. This provides further justification for the initial assessment findings presented at formal consultation stage (the conclusions of which remain unchanged). Refer to Appendix 14A: Desk Based Assessment (ES Volume II) and Section 14.4.</p> <p>Photomontages (Figure 10.21–10.40 (ES Volume III)) of viewpoints with projected planar projection, including viewpoint 4 (see Figure 10.24) and 12 (see Figure 10.29) have been created to give a representative impression of the visual impact of the Proposed Development on the skyline. Mitigation has been recommended in accordance with this.</p> <p>The mitigation of landscape effects is intrinsic within the Proposed Development which seek to substantially retain existing well established vegetation within the Site. The existing vegetation along the Site boundary would be retained and managed to ensure its continued presence to aid the screening of low level views into the Site and is incorporated into the Landscaping and Biodiversity Management and Enhancement Plan (Application Document Ref. 7.5) submitted as part of the Application. Implementation of the Landscaping and Biodiversity Management and Enhancement Plan is proposed to be secured by a Requirement of the draft DCO (Application Document Ref 2.1). This offers the greatest</p>

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>power station (particularly from view 4) and have suggested that it may be possible to find some mitigation opportunities with regards to grade II listed assets located in the village of Bole as a group.</p>	<p>potential for mitigation of potential impacts upon heritage assets.</p>
<p>Historic England</p>	<p>6 November 2017 (meeting on-Site)</p>	<p>Historic England has acknowledged the depth of the Pulverised Fuel Ash and the challenges this presents for archaeological investigations. Overall they are satisfied with the proposed</p>	<p>Given the limited knowledge of potential and opportunity to further evaluate it at this stage, it is agreed that the potential for prehistoric remains be assessed as moderate.</p> <p>A strategy for evaluating the archaeological potential of the Site is provided in the Outline Written Scheme of Investigation (Application Document Ref. 7.9).</p>

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
		<p>approach.</p> <p>They have recommended that the archaeological potential for prehistoric remains would be better characterised as moderate rather than low.</p> <p>They concur that the value of potential deposits remains unknown.</p>	
Bassetlaw District Council Historic England Lincolnshire County Council Nottinghamshire	March/April 2019	Provision of copies of final draft chapter and offer of pre-application meeting to each consultee to: <ul style="list-style-type: none"> • discuss final proposals and assessments; • obtain feedback prior to submission of Application; and • agree an approach to drafting of Statements of Common Ground (SoCG) prior to submission of the Application. 	Further details on consultation undertaken can be found in the Consultation Report (Application

Consultee or Organisation Approached	Date and Nature of Consultation	Summary of Response	How comments have been addressed in this chapter
County Council West Lindsey District Council		Document Ref. 7.1).	

Summary of Key Changes to Chapter 14 since Publication of the Preliminary Environmental Information (PEI) Report

- 14.3.2 The PEI Report was published for the statutory consultation in September 2017, allowing consultees the opportunity to provide informed comment on the Proposed Development, the assessment process and preliminary findings.
- 14.3.3 The key changes since the PEI Report was published are summarised in **Table 14-3**.

Table 14-3: Summary of key changes to chapter 14 since publication of the PEI Report

Summary of Change since PEI Report	Reason for Change	Summary of Change to Chapter Text in the ES
Meeting with Historic England on 6 November 2017 to discuss the strategy for further archaeological evaluation at which it was agreed that recommendations should be made in Chapter 14: Cultural Heritage (ES Volume I) mitigation section to enable subsequent site investigations to further assess the Site's archaeological potential, in particular relating to palaeochannels.	To ensure that a strategy secured by a requirement requiring a WSI to be prepared in accordance with the principles set out in this chapter.	The proposed strategy for evaluating the archaeological potential of the Site (Outline Written Scheme of Investigation (Application Document Ref. 7.9)) has been prepared to accompany the Application. This will be agreed with Historic England and other relevant authorities as necessary, formalised through a Statement of Common Ground between the parties.
Construction phase assessment year updated.	To reflect updated indicative construction programme.	Update of relevant paragraphs in Section 14.6 .

Assessment Methods

Methodology for Determining the Heritage Baseline

- 14.3.4 A desk-based assessment has been undertaken in order to identify the known cultural heritage resource within defined study areas and the potential for as yet unknown archaeological remains to be present at the Site. The desk-based assessment has built on and updated work carried out for previous studies at the West Burton Power Station site (Ref 14-14).

14.3.5 The study area for the identification of designated assets is defined as a 3km radius from the centre point of the Site (see **Figure 14.2** (ES Volume III)) and 1km for non-designated assets held on the Nottinghamshire HER and the Lincolnshire HER (see **Figure 14.1** (ES Volume III)). The 3km study area was determined taking into account the low lying land surrounding the Site and the Proposed Development, and potential setting issues on designated assets and a Conservation Area within the 3km study area. Designated assets that lie outside the study area, up to a radius of 5km were also considered where these may have views of the Proposed Development (see **Figure 14.2** (ES Volume III)). The ZTV presented as **Figure 10.4** (ES Volume III) was taken into account in establishing visibility to and from the Proposed Development.

14.3.6 The following data sources were consulted during the desk-based assessment:

- Nottinghamshire HER for datasets relating to non-designated assets, including known archaeological sites, find spots, historic buildings and previous archaeological works;
- Lincolnshire HER for datasets relating to non-designated assets, including known archaeological sites, find spots, historic buildings and previous archaeological works;
- Nottingham Archives;
- Defence of Britain database;
- published and unpublished documentary sources (including development control site reports);
- historic mapping;
- online sources including British Geological Survey (BGS) Geology of Britain Viewer and borehole viewer;
- the East Midlands Archaeological Research Framework; and
- Local Planning Authority Local Plan and other relevant local planning information including Bassetlaw District Council heritage mapping of local buildings.

14.3.7 A site visit was undertaken on 11 July 2017 to assess the condition of known heritage assets and the potential for unrecorded heritage assets that might exist within the Site. The site visit also assessed the setting of designated assets in the 3km study area and beyond where these may have views of the Proposed Development.

14.3.8 An updated search of the Nottinghamshire HER was obtained in February 2019 in order to confirm that no new archaeological sites had been recorded within the study area since the drafting of the desk based assessment and ES in 2017.

Methodology for Determining Effects

Significance Criteria

14.3.9 The significance (heritage value) of a heritage asset is derived from its heritage interest to this and future generations which may be archaeological, architectural, artistic or historic (NPPF Annex 2, Glossary (Ref 14-5)). The significance derives not only from a heritage asset’s physical presence, but also from its setting. Taking these criteria into account, each identified heritage asset can be assigned a level of significance (heritage value) in accordance with a three-point scale, as set in **Table 14-4**.

Table 14-4: Criteria for determining the significance (heritage value) of heritage assets

Significance (Heritage Value)	Criteria
High	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

- 14.3.10 Having identified the significance of the heritage asset, the next stage in the assessment is to identify the level and degree of impact to an asset arising from a development. Impacts may arise during construction, operation or decommissioning and can be temporary or permanent. Impacts can occur to the physical fabric of the asset or affect its setting.
- 14.3.11 The level and degree of impact (impact rating) is assigned with reference to a four-point scale as set out in **Table 14-5**. In respect of cultural heritage, an assessment of the level and degree of impact is made in consideration of any scheme design mitigation (embedded mitigation).
- 14.3.12 When professional judgement is considered, some heritage assets may not fit into the specified category within **Table 14-5**. Each heritage asset is assessed on an individual basis and takes into account regional variations and individual qualities of sites.

Table 14-5: 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.
Minimal	Changes to the asset that hardly affects significance. Minimal changes 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.

- 14.3.13 An assessment of the level of effect, having taken into consideration any embedded mitigation, is determined by cross-referencing between the significance (heritage value) of the asset (**Table 14-4**) and the magnitude of impact (**Table 14-5**). The resultant level of effect (**Table 14-6**) can be negligible, adverse or beneficial.

Table 14-6: Criteria for determining the significance of effect

Significance (Heritage Value)	Magnitude of impact			
	High	Medium	Low	Minimal
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Minor
Low	Moderate	Minor	Minor	Negligible

14.3.14 This ES reports the predicted significance of cultural heritage effects. Effects that are assessed as being major or moderate are considered to be significant. Within the NPPF (Ref 14-5), 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 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 effect is unlikely to meet the test of substantial harm. It 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 the Proposed Development impact is one of professional judgement.

14.3.15 An assessment of the predicted effects is made both prior to the implementation of mitigation, where required, and after the implementation of mitigation, in order to identify residual effects. This highlights where mitigation may be appropriate, whilst demonstrating the likely effectiveness of mitigation in the assessment of residual effects.

Rochdale Envelope

14.3.16 It is assumed that the majority of the Site (with the exception of areas of vegetation that are to be retained and protected – see **Chapter 10: Landscape and Visual Amenity**) would be cleared and subject to some below ground disturbance during construction, no matter what the final sizing and layout of the buildings and structures is. The Rochdale Envelope parameters (i.e. the maximum parameters for the Proposed Development and in particular its main buildings and structures) therefore do not affect the construction assessment of impacts on heritage assets.

14.3.17 The Opening and Operation assessments consider the impacts of the Proposed Development buildings and structures on the setting of heritage assets. A worst-case is assessed in terms of building/structure dimensions and stack heights and assuming that some piling may be required for some of the structures. Therefore, no further discussion of the Rochdale Envelope parameters is provided in this chapter.

14.4 Baseline Conditions

Current Baseline

- 14.4.1 The desk-based assessment carried out to determine the cultural heritage baseline conditions (**Appendix 14A: Desk Based Assessment (ES Volume II)**) identified two Scheduled Monuments, 38 Listed Buildings, one Conservation Area, one locally Listed Building and 24 non-designated assets within the defined study areas. Of these, the assets detailed in **Table 14-7** were identified as having the potential to be affected by elements of the Proposed Development (also refer to **Figure 14.1 and 14.2** (ES Volume III)).

Table 14-7: Cultural heritage assets with the potential to be affected by the Proposed Development

Asset ID	Site name	NGR	Site description	Asset Type	Date	Designation
M4946	Deserted village at West Burton	SK 798 853	A deserted village of medieval date. All that now exists within the area is a ruined church.	MON	Medieval to 1865	Scheduled Monument
-	Segelocom Roman town	SK 82274 82806	Located on the north-west of the village of Littleborough is Segelocom Roman Town. The known site extends north-westwards from the present day village over an area of approximately 400m by 300m between the River Trent and the Mother Drain.	MON	Roman	Scheduled Monument
NHLE 1370124	Bole Manor House and attached outbuilding	SK7939287128	Manor house. c.1675.	MON	Post-medieval	Grade II listed
NHLE 1045690	Church of St Martin, Bole	SK 79305 87107	Parish church. 13 th , 14 th , 15 th , 16 th century phases. Dressed ashlar and coursed rubble construction.	MON	Medieval – Post-medieval	Grade II listed
-	WBA Power Station	SK 79188 85568	Coal fired power station built from 1961.	MON	Modern	Non-designated heritage asset

MON – monument

14.4.2 In addition to the known cultural heritage assets identified above, the Site has:

- a moderate potential for prehistoric or Roman archaeological deposits;
- a moderate potential for medieval deposits likely to relate to medieval agriculture; and
- a moderate potential for alluvial deposits that may contain palaeoenvironmental evidence.

14.4.3 The value of these potential archaeological deposits has been assessed as being at most moderate, given current available information.

14.4.4 Twenty battery storage units were constructed in 2018 within the footprint of WBB Power Station, including a central control unit and associated cabling to connect the battery units to the existing 6.6kV station switchboard. The battery units are arranged in pairs that measure 17.6m by 5.3m and are 2.9m in height. This development is not anticipated to have materially changed the current baseline for the purposes of this assessment, as the units are not anticipated to result in impacts to cultural heritage, including setting effects. The limited construction works are now completed and operation of the units commenced in June 2018.

Future Baseline

14.4.5 The baseline cultural heritage details as presented in **Table 14-7** and in **Appendix 14A: Desk Based Assessment (ES Volume II)** are not anticipated to change in the absence of the Proposed Development.

14.5 Development Design and Impact Avoidance

14.5.1 The Proposed Development would be constructed on a platform of PFA material approximately 8-13m deep that is already present at the Site (refer to **Chapter 11: Ground Conditions and Hydrogeology**). This would provide a deep buffer above the natural ground surface that would protect any archaeological deposits that may be present within the Site.

14.5.2 The mitigation of landscape effects is intrinsic within the development proposals which seek to substantially retain existing well established vegetation within the Site, thus minimising setting effects on built heritage. The existing vegetation along the Site boundary would be retained and managed to ensure its continued presence to aid the screening of low level views into the Site and has been incorporated into the Landscaping and Biodiversity Management and Enhancement Plan (**Application Document Ref. 7.5**). This will offer the most suitable mitigation of effects upon the built heritage assets considered to be affected by the Proposed Development.

14.6 Likely Impacts and Effects

14.6.1 The following aspects of the Site, illustrated in **Figure 3.3** (ES Volume III) have been considered in assessing the likely impacts and effects of the Proposed Development:

- Proposed Power Plant Site;
- construction laydown area;
- proposed northern or southern drainage connection corridors or third option to connect into the existing WBB Power Station site drainage system to the south of the Proposed Power Plant Site and to the north of WBB Power Station, which may include the installation of an oil water separator to the south-east corner of the WBB Power Station site;
- rail offloading laydown area;
- gas receiving area;;
- electricity connection route and connection to existing 400kV switchyard; and
- landscaping and biodiversity management and enhancement area.

Construction

14.6.2 Construction effects consider the setting impacts on above ground Scheduled Monuments (if present) and Built Heritage, as the buildings and structures of the Proposed Development are installed and constructed. They also consider potential effects on below-ground archaeology, including below ground Scheduled Monuments.

Archaeology (including below ground Scheduled Monuments)

14.6.3 The existing West Burton Power Stations are visible in views from the Segelocum Roman town, with the main visible features being two chimney stacks (each 198m high) and the cooling towers of WBA Power Station (eight natural draught cooling towers each 112m high). **Figure 10.17** (ES Volume III) from VP12 illustrates views from a position close to the Segelocum Roman town, with the Proposed Development in the distance) with photomontages from this viewpoint illustrated as **Figures 10.31–10.40** (ES Volume III). Elements of the Proposed Development may be visible above tree screening that is already present. Segelocum Roman town is a Scheduled Monument and therefore of high significance (heritage value). The Proposed Development impact would be minimal in terms of visual intrusion. The contribution that the affected view makes to the heritage significance of Segelocum is low. The view is part of the current visual envelope in which the monument is experienced. The resultant effect on the heritage significance of Segelocum Roman town from the Proposed Development is therefore minor adverse (not significant).

- 14.6.4 WBA and WBB Power Stations lie between the Site and the Scheduled Monument of West Burton Deserted Medieval Village. The Proposed Development would be smaller in scale than both WBA and WBB Power Stations and therefore would not be visible from the Scheduled Monument (refer to **Figure 10.14** (ES Volume III)) from VP9 which illustrates views in the direction of the West Burton Deserted Medieval Village, with the Proposed Development in the distance). As a result, the Proposed Development would have no impact on the West Burton Deserted Medieval Village Scheduled Monument and therefore a negligible effect (not significant) on the Scheduled Monument.
- 14.6.5 There may be temporary impacts on the West Burton Deserted Medieval village and the setting of Segelocum Roman town during construction, associated with increased visual (and in the case of West Burton Deserted Medieval Village) noise intrusion. Such impacts would be minimal and the resultant effect on the setting of the asset would be minor adverse and temporary (not significant).

Potential Archaeological Deposits

- 14.6.6 Foundations for the Proposed Development have the potential to impact on alluvial deposits with archaeological potential present below the PFA deposits. The foundation design for the Proposed Development has not yet been determined and would be subject to a piling and penetrative foundation design method statement, informed by risk assessment. Submission and approval of the piling risk assessment is proposed to be secured by a Requirement of the draft DCO (**Application Document Ref 2.1**). An assessment of the potential effects of the Proposed Development has, therefore, been presented for both a best-case and a worst-case.
- 14.6.7 As detailed in **Chapter 11: Ground Conditions and Hydrogeology**, additional site investigation is proposed to be undertaken prior to construction in order to inform the foundation design and also to enable the development of an archaeological deposit model for the Site (see **Section 14.7**). This information will be gathered in accordance with the Outline Written Scheme of Investigation (**Application Document Ref. 7.9**) and would enable an assessment of the effect of construction from these elements of the Proposed Development to be completed. For the purposes of presenting a worst-case assessment in this ES, it is assumed that piled foundations would be required, which would disturb any below ground deposits. Based upon current available information, as a worst case, the value of the archaeological asset could be medium, and the impact magnitude as a consequence of piling could be up to medium — taking account of **Table 14-4** and **Table 14-5**. This worst-case scenario would result in a moderate adverse effect which would be permanent and significant. By contrast, as a best-case, the value of the archaeological asset could be low, and the magnitude of impact from piling could be minimal — according to **Table 14-4** and **Table 14-5**. The significance of effect in this best-case scenario on archaeological assets would be negligible (not significant).

- 14.6.8 As detailed in **Chapter 4: The Proposed Development**, a new surface water drainage system, comprising pond(s) and/or a tank or similar including connection to the existing surface water systems on the West Burton Power Station site is proposed. **Section 4.2 (Chapter 4: The Proposed Development)** describes the nature of proposals, including surface water drainage pipeline connecting the Proposed Development to the West Burton Power Station site drainage system, via one of the proposed northern or southern drainage corridors or alternatively, via a connection to the south of the Proposed Power Plant Site. Installation of an oily water separator to the south-east corner of the WBB Power Station site may also be required. The proposed northern drainage connection corridor route (approximately 250m in length) would largely follow an existing access road that is used for access to the Severn Trent Water sewage treatment plant. The proposed southern drainage connection corridor (approximately 350m in total length) would connect from the Proposed Power Plant Site to the south-east of the gas receiving facility for WBB Power Station and pass through existing vegetated areas, before connecting into the existing WBA Power Station surface water system north of the abstraction pumping station and associated infrastructure associated with WBA Power Station.
- 14.6.9 The depth of impact from the drainage system would be up to approximately 4m below present ground level, where the connection into the existing WBA Power Station purge line is proposed and in areas could impact on deposits with the potential for the presence of archaeological remains. The width of the impact would be a corridor of around 4m, where the tie-in to the WBA Power Station purge line is proposed and excavations down to the connection point are required. Based upon current available information, as a worst-case, the value of the archaeological asset could be medium and the impact magnitude no more than medium, given the relatively narrow width of the drainage system. The worst-case significance of effect would, in this scenario, be moderate adverse, permanent and significant. As a best-case, the value of the archaeological asset could be low and the impact magnitude from the drainage system no more than medium, given the relatively narrow width of the drainage system. The significance of effect on archaeological assets in this best-case scenario would be permanent and minor adverse (not significant).

Built Heritage

- 14.6.10 The Proposed Development is considered to have the potential to impact upon two designated built heritage assets, namely Bole Manor House and the Church of St Martin; both located in the village of Bole, approximately 1km north-west of the proposed construction laydown area.
- 14.6.11 The grade II listed Bole Manor House is considered to be primarily of historic significance, with some architectural features of note. Views are made from the house into its gardens and the wider agricultural landscape, which form part of its setting and contribute positively to its significance. The wider village of Bole and specifically the historic Church of St Martin are also considered to positively

contribute to the ability to understand the significance of the house. Because of this relationship with the wider village, Bole Manor House also positively contributes to the setting and significance of the historic settlement. There are no designed views from the asset, or key views of it.

14.6.12 As a grade II listed building, Bole Manor House is considered to be of medium significance (heritage value). The Proposed Development would have some visual impact upon the building, and the Proposed Development would increase the industrial character of views from Bole Manor House and the wider village of Bole over its rural setting to a minor extent. No change would result on the relationship between Bole Manor House and the historic settlement of Bole. Given the existing impacts upon the setting of Bole from WBA and WBB Power Stations, as apparent from View 4 with projected planar projection (**Figures 10.9** and photomontages in **Figures 10.21–10.30** (ES Volume III)), the magnitude of impact is considered to be no more than minimal. Temporary visual impacts from construction plant and equipment are considered to have only minor setting effects, resulting in no change upon the considered effects. Therefore, this would result in a minor adverse effect (not significant).

14.6.13 The grade II listed Church of St Martin, Bole, is located at the heart of the historic Bole settlement and significantly contributes to the group value of Bole as a historic settlement. It is considered to be of architectural and historic interest, in part derived from its medieval origins and restoration by Ewan Christian in 1866. The asset is designed to be a dominant focal point of the landscape, for which it already competes with the WBA Power Station. Its setting is considered to include the church yard in which the asset is located, with mature trees largely screening views outward from the asset, as well as the village of Bole and the wider rural landscape, in which it is designed to be viewed from. Given the present impact of visually dominant WBA Power Station on views towards the church, it is considered that the visual envelope of the Proposed Development would result in only minor changes to the setting of the church and the ability to understand its significance. Temporary visual impacts from construction plant and equipment are considered to have only minor setting effects upon views towards the church, which would result in no further change. Therefore, the magnitude of impact is considered to be no more than minimal, and as a medium significance asset, this would result in a temporary minor adverse effect (not significant).

14.6.14 WBA Power Station is recorded on the Nottinghamshire HER as a heritage asset. The asset is located approximately 300m south-south-west of the Site, and is a prominent and commanding focal point of the landscape. As an asset of local importance, the value is low (heritage value). Given the existing impacts on the asset due to the WBB Power Station, the screening effect that WBB Power Station would have for the Proposed Development and the limited impact of the Proposed Development on views towards the visually dominant WBA Power Station, the Proposed Development would result in a minimal magnitude of impact. Therefore, the effect would be negligible (not significant).

14.6.15 Heritage assets within the villages of Saundby (including Saundby Conservation Area, Hall Farmhouse and The Grove), Sturton-le-Steeple (The Old Rectory; Boundary Wall, Railing and Gate at Crown Cottage; Crown Cottage; Wesleyan Chapel, Wall and Railing; Mayflower House and Outhouse; Barn and Stable at Cross Street Cottage; West End Farmhouse and Wash House; Pigeoncote and Barn to west of Church Hill Farm House; Church Farm House; Boundary Wall at Church of St Peter and St Paul; Church of St Peter and St Paul; Sturton-le-Steeple War Memorial; Culvert, Gate and Gate Piers at Manor House Memorial; Four Pillars 10m south of Manor House; Culvert, Boundary Wall, Fence and Gate at the Manor House; Manor House; Stable at Manor House dated 1779; Stable at Manor House dated 1846 and Village Shop Occupied by C.H. Bedford), Knaith (Church of St Mary and Knaith Hall), Lea (Church of St Helen; Mellow Cottage and Old Post Office; 1 and 3 Willingham Road; Holly House; The Village Farmhouse; The Cottage; The Old Rectory; Rectory Farmhouse; Gate Piers at the Old Rectory; Outhouse adjacent to and south of Carhouse and Stables at the Old Rectory; Carhouse and Stables at the Old Rectory and Gazebo at the Old Rectory) and Gainsborough have also been considered. These assets have been scoped out from further assessment, as it is considered that due to the distances between these assets and the Proposed Development, existing screening and existing impacts associated with the WBA and WBB Power Stations, no further change to the significance of these assets would result from the Proposed Development. Therefore, it is considered that the Proposed Development would have no impact upon them.

Table 14-7: Summary of construction effects upon heritage assets

Description	Designation	Value	Magnitude of impact	Significance of effect
West Burton Deserted Medieval Village	Scheduled Monument (below ground)	High	Minimal	Minor adverse
Segelocum Roman Town	Scheduled Monument (below ground)	High	Low	Minor adverse
Moderate potential for archaeological deposits dating from the prehistoric to the medieval	Potential archaeological deposits (best case)	Low	Low	Negligible
Moderate potential for archaeological deposits dating	Potential archaeological deposits (worst case)	Medium	Medium	Moderate adverse

Description	Designation	Value	Magnitude of impact	Significance of effect
from the prehistoric to the medieval				
Bole Manor House	Grade II listed Built Heritage	Medium	Minimal	Minor adverse
Church of St Martin, Bole	Grade II listed Built Heritage	Medium	Minimal	Minor adverse
WBA Power Station	Non-designated heritage asset	Low	Minimal	Negligible

Opening year of Proposed Development (2023)

14.6.16 It is currently anticipated that (subject to the necessary consents being granted and an investment decision being made), the earliest date that construction work would commence is around Quarter 3 (Q3) 2020 and assuming a three year construction programme, the Proposed Development is unlikely to commence commercial operation before 2023.

14.6.17 Opening of the Proposed Development, assuming this is in 2023, is not anticipated to result in any impacts or effects upon cultural heritage assets beyond those that have been assessed for construction impacts in the preceding paragraphs, which considered the effects of the installation of buildings and structures of the Proposed Development.

Operation

14.6.18 Operational effects result from the operation of the Site after opening. These can result from elements such as lighting and noise. No effects upon archaeology or built heritage assets are considered to result from the operation phase of the Proposed Development that are above or beyond those that have been assessed for construction impacts. The operational noise and landscape and visual amenity effects of the Proposed Development on built heritage are separately considered in **Chapter 8: Noise and Vibration** and **Chapter 10: Landscape and Visual Amenity** respectively.

Decommissioning

14.6.19 It is envisaged that the Proposed Development would have an operational life of up to circa 40 years, therefore decommissioning activities are currently anticipated to commence after 2063.

14.6.20 The strategy for decommissioning is not yet known. Proposals are described in **Chapter 4: The Proposed Development**, including removal or dismantling of plant

and equipment to ground level and leaving hard standing and sealed concrete areas in-situ. Any areas of the Site that are below ground level would be backfilled to ground level to leave a levelled area.

- 14.6.21 There would be no physical impacts to buried cultural heritage assets during decommissioning of the Proposed Development, as any impact upon archaeological remains would have been mitigated at the construction phase.
- 14.6.22 There would be temporary indirect impacts to the setting of designated assets in the wider study area during decommissioning, resulting from the use of machinery to dismantle the plant. Decommissioning is likely to affect the setting of the Bole Manor House and the Church of St Martin, Bole (Grade II listed). However, impacts would be no greater than those recorded during construction and operation, and the setting effects would therefore not be significant.
- 14.6.23 Impacts arising from decommissioning activities would be temporary and the duration would be shorter than the impacts during construction. The impacts would not be greater than those reported during construction.

14.7 Mitigation and Enhancement Measures

- 14.7.1 A programme of archaeological monitoring and associated environmental sampling will accompany pre-construction site investigation works, proposed to be secured by a Requirement of the draft DCO (**Application Document Ref. 2.1**), based on the Outline Written Scheme of Investigation presented in **Application Document Ref. 7.9**. This will allow a more detailed model of the deposits below the PFA to be developed and palaeo-environmental information gathered. The archaeological strategy will include provision for dating of deposits and geoarchaeological assessment to provide information on the timeframe of the deposit sequence and the environments in which it was laid down. The number and spacing of any intrusive locations would be discussed and agreed with Historic England Regional Science Advisor and the Senior Archaeologist for NCC. This will enable an assessment of the archaeological potential and value of deposits below the PFA deposits to be made.
- 14.7.2 Targeted pre-construction intrusive works comprising a limited number of trial pits, boreholes and/or window samples would be undertaken where needed to provide detail to the deposit model, including along the selected drainage connection corridor route, if chosen. The results of this archaeological sampling regime would inform any requirements for archaeological monitoring or excavation during construction.
- 14.7.3 Archaeological investigations will take an iterative approach to the evaluation of archaeological potential and establishing the requirements for archaeological mitigation work. An Outline Written Scheme of Investigation describing the approach and methods to be used is provided in **Application Document Ref. 7.9**.

- 14.7.4 Evaluation of the findings of the archaeological investigations during detailed design will allow for preservation in-situ of archaeological remains, where reasonably practicable. Where not reasonably practicable, it will enable the development and implementation of strategy for archaeological recording to preserve the remains impacted by record.
- 14.7.5 The result of preservation in-situ, where reasonably practicable, would reduce the significance of effect on potential buried archaeology from at most moderate (significant) to minor adverse (not significant).
- 14.7.6 Should preservation by record of any below ground archaeological deposits be the only reasonably practicable option, the effect would remain as at most, moderate and adverse (significant) given that paragraph 199 of the NPPF makes clear 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 adverse effects. Similarly, it has not been treated as a benefit of the Proposed Development.
- 14.7.7 The mitigation of landscape effects is intrinsic within the development proposals which seek to substantially retain existing well established vegetation within the Site. No further specific mitigation beyond the design and impact avoidance measures set out in **Section 14.5** is proposed.

14.8 Limitation or Difficulties

- 14.8.1 The desk-based assessment and identification of the cultural heritage baseline is based on information available at the time of writing this ES.
- 14.8.2 The presence of significant depths of PFA deposits across the Site precludes any productive non-intrusive site prospection techniques and introduces significant logistical and health and safety constraints for intrusive investigation. The assessment of archaeological and palaeoenvironmental potential of the Site is, therefore, based on: existing site investigation reports; the known archaeological resource in the surrounding landscape (1km search area); and its topographical location on the floodplain of the River Trent. The archaeological value of any deposits is currently unknown. As detailed in **Section 14.6**, the extent of any foundations and their ability to impact on alluvial deposits with archaeological potential present below the PFA material is currently unknown. Therefore, a best and worst-case assessment of the significance of any effect on buried archaeological remains has been made based on current information.
- 14.8.3 The strategy for decommissioning is not yet known. However, works are likely to be limited to the removal of the structures and, therefore, would not impact any deposits with the potential to contain archaeological evidence. The worst-case effects on archaeological deposits during decommissioning would be in the event that all structures are removed below the PFA, which may impact on potential

archaeological deposits that may be present. In this event, further archaeological evaluation would be required to assess the archaeological potential of the Site and devise a suitable mitigation strategy. Mitigation in this case could range from no archaeological work, to an archaeological watching brief or to excavation. A decommissioning environmental management plan (DEMP) would be approved by the local planning authority prior to works starting, proposed to be secured by a Requirement of the draft DCO (**Application Document Ref. 2.1**).

14.9 Summary of Likely Significant Residual Effects

14.9.1 The residual cultural heritage effects as associated with the Proposed Development are summarised in **Table 14-8**.

Table 14-8: Likely significant residual effects summary table

Predicted Effect	Duration	Mitigation	Residual Effect
Minor adverse effect on setting of West Burton deserted medieval village (below ground Scheduled Monument) due to visual/noise	Temporary (duration of construction)	None proposed	No more than minor adverse (not significant).
Negligible effect on setting of West Burton deserted medieval village (below ground Scheduled Monument)	Throughout the life of the Proposed Development	None proposed	Negligible (not significant).
Minor adverse effect on setting of Segelocom Roman town	Throughout the life of the Proposed Development	None proposed	Minor adverse (not significant).
Negligible - Moderate adverse effect (best and worst-case scenarios) resulting from removal of archaeological deposits (likely presence)	Permanent	Archaeological survey, geoarchaeological and palaeoenvironmental sampling and assessment and if necessary, archaeological trial trench evaluation.	Negligible (not significant) - Minor adverse (not-significant) if preservation in situ is a reasonably practicable option. Negligible (not significant) - at

Predicted Effect	Duration	Mitigation	Residual Effect
<p>assessed as Moderate) during construction, including where piling of foundations or earthworks along the northern or southern drainage connection corridor route (if chosen) are required.</p>		<p>Mitigation by preservation in-situ (to be achieved, if reasonably practicable, through detailed design) would be considered. If this is not reasonably practicable, excavation would provide mitigation in the form of preservation by record.</p>	<p>worst Moderate adverse (significant) if preservation by record is the only reasonably practicable option.</p>
<p>Minor adverse effect on the setting of Bole Manor House</p>	<p>Throughout the life of the Proposed Development</p>	<p>None proposed. The Landscaping and Biodiversity Management and Enhancement Plan (Application Document Ref. 7.5) takes into account setting effects on Bole, but the addition of landscape features such as trees and woodland would not be effective in reducing the effects at this location.</p>	<p>Minor adverse (not significant).</p>
<p>Minor adverse effect on the setting of Church of St Martin, Bole</p>	<p>Throughout the life of the Proposed Development</p>	<p>None proposed. The Landscaping and Biodiversity Management and Enhancement Plan (Application Document Ref. 7.5) takes into account setting effects on Bole, but the addition of landscape features such as trees and woodland would not be effective in</p>	<p>Minor adverse (not significant)</p>

Predicted Effect	Duration	Mitigation	Residual Effect
		reducing the effects at this location.	
Negligible impact to WBA Power Station	Throughout the life of the Proposed Development	None proposed.	Negligible (not significant)

14.10 References

- Ref 14-1 HM Government (1979) *Ancient Monuments and Archaeological Areas Act 1979*.
- Ref 14-2 HM Government (1983) *National Heritage Act 1983*.
- Ref 14-3 HM Government (1990) *Planning (Listed Buildings and Conservation Areas) Act (1990)*.
- Ref 14-4 HM Government (1990) *Town and Country Planning Act 1990*.
- Ref 14-5 Ministry of Housing, Communities and Local Government (2019) *National Planning Policy Framework*.
- Ref 14-6 Department for Energy and Climate Change (2011) *National Policy Statement for Energy (EN-1)*.
- Ref 14-7 Department for Communities and Local Government (2014) *National Planning Policy Guidance*.
- Ref 14-8 Historic England. 2015. Historic Environment Good Practice Advice in Planning: 2. *Managing Significance in Decision-taking*.
- Ref 14-9 Historic England. 2015. Historic Environment Good Practice Advice in Planning: 3. *The Setting of Heritage Assets*.
- Ref 14-10 Bassetlaw District Council (2011) *Bassetlaw District Local Development Framework Core Strategy and Development Management Policies*.
- Ref 14-11 Bassetlaw District Council (2019) *Draft Local Plan*.
- Ref 14-12 Sturton Ward Planning Group (2015) *Sturton Ward Neighbourhood Plan*.
- Ref 14-13 West Lindsey District Council (2012) *Central Lincolnshire Local Plan*.
- Ref 14-14 Historic England (2011) *Seeing the History in the View. A Method for Assessing Heritage Significance Within Views*.