Document 5.11.1

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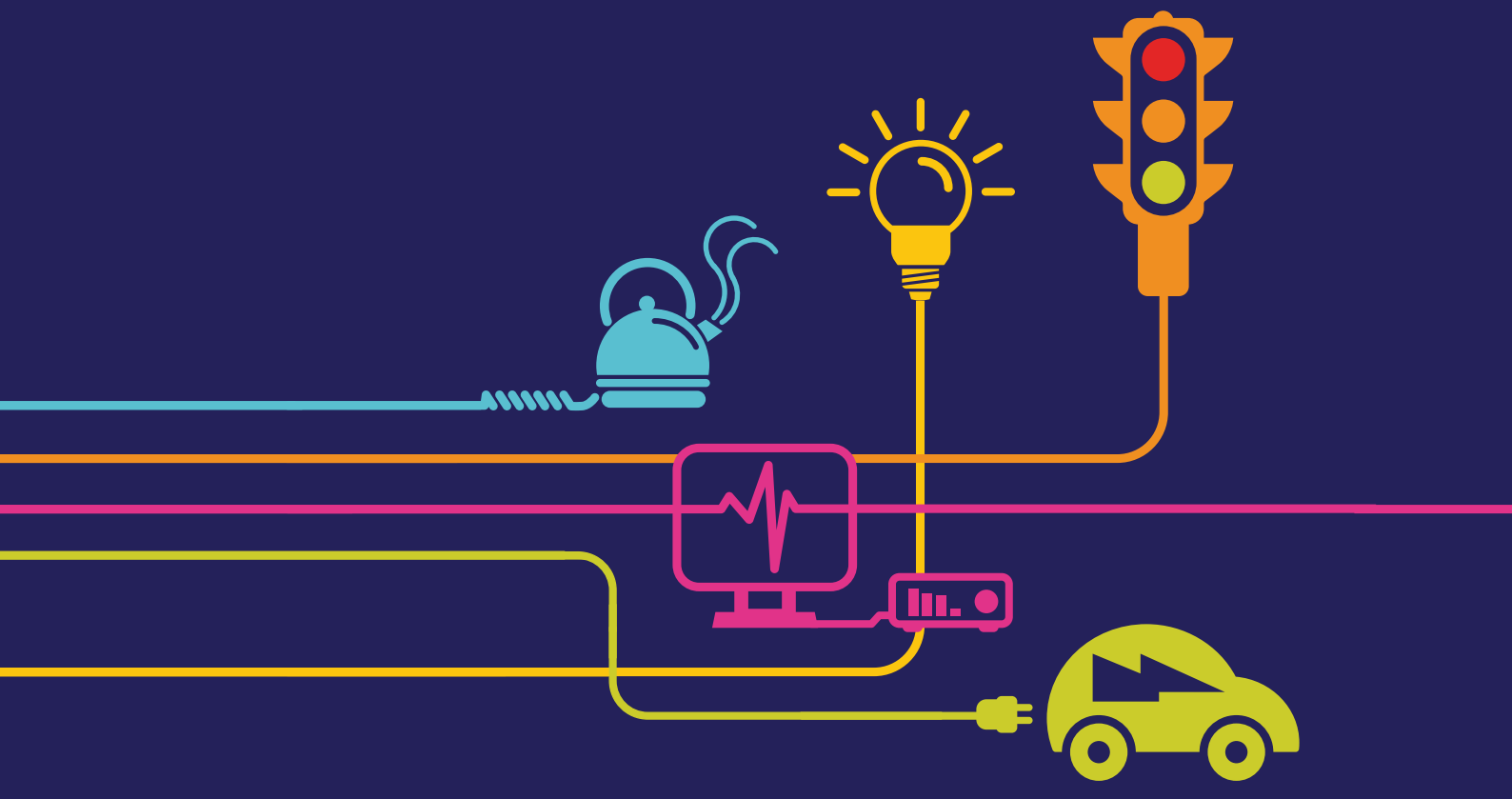
Environmental Statement
Historic Environment

Hinkley Point C Connection Project

Regulation 5(2)(a) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



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ENVIRONMENTAL STATEMENT – MAY 2014

VOLUME 5.11.1, CHAPTER 11 – HISTORIC ENVIRONMENT

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11 HISTORIC ENVIRONMENT

11.1 Introduction

11.1.1 The purpose of this chapter of the Environmental Statement (ES) is to provide an assessment of the likely significant effects of the Proposed Development on the historic environment.

11.1.2 A description of the Proposed Development is provided in **Volume 5.3.1** and illustrated at **Volume 5.3.3, Figures 3.1 – 3.6**. This chapter is supported by a number of figures and appendices provided after the main text of this chapter **Volume 5.11.1.** To assist the reader, some figures are presented as insets within this chapter. This chapter should be read with these figures and appendices available for reference as they assist the understanding of the descriptions and assessments presented in the text.

11.1.3 Heritage receptors are referred to in this chapter and the associated appendices as 'assets'. This aligns with relevant policy (Ref. 11.1) and is also in response to comments from statutory and non-statutory consultees contained in the Scoping Opinion (**Volume 5.5.2, Appendix 5A**). The assets discussed in this chapter relate to archaeological remains, built heritage and historic landscape character and assets. Heritage assets can be designated (World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Parks and Gardens, Registered Battlefields, Protected Wrecks, Protected Military Remains) or non-designated. Heritage assets include any building, monument, site, place, area or landscape identified as having some degree of heritage interest, which may be archaeological, architectural, artistic or historic.

11.1.4 The sensitivity of heritage assets (in terms of importance or value) is referred to throughout this chapter and in the associated appendices as their 'heritage significance'.

11.1.5 This chapter provides details of the heritage baseline for the area in which the Proposed Development would be located, the heritage assets that would be affected by the Proposed Development, the predicted magnitude of change to heritage significance that would result for those assets, and the resulting significance of effect of the Proposed Development on those assets. This chapter describes how the effects of the Proposed Development on the historic environment have been assessed, and the outcome of consultations that have been undertaken with statutory and non-statutory stakeholders in relation to this topic area.

11.1.6 The effects assessed in this chapter can be direct or indirect, permanent or temporary (and of short, medium or long-term duration), beneficial or adverse, and the assessment of effects identifies which is the case. Construction, operational and decommissioning phase effects are all assessed. This effects assessed in this chapter include those that could result from alteration or destruction of a heritage asset, or development within its setting.

11.1.7 Proposed measures to mitigate adverse effects are also set out. The mitigation measures summarised in section 11.7 and in the Outline Written Scheme of Investigation (WSI) (**Volume 5.26.4**) are deliverable and effective. An assessment

of the residual significance of effect on heritage assets is provided on the basis of the proposed mitigation measures.

Project Engagement

EIA Scoping

11.1.8 As part of the scoping phase of the Environmental Impact Assessment (EIA), National Grid prepared a Scoping Report (April 2013) setting out the proposed approach to EIA in respect of the Proposed Development, including the identification of assessment methods for each of the EIA topics to be assessed

11.1.9 The Scoping Opinion is provided at **Volume 5.5.2, Appendix 5A**. A summary of the Scoping Opinion representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 5.5.2, Appendix 5B**. A summary of the main Scoping Opinion representations received in relation to the historic environment are presented in the table below.

Table 11.1 Summary of the Main Historic Environment Scoping Opinion Representations Received

Representation	Response
The methodology used should be clearly described; the choice of methodology should be justified within the ES. The terminology used should also be clearly defined and explained. National Policy Statement 1 refers the significance of an asset as being '…the sum of the heritage interests that a heritage asset holds…'. In the Scoping Report this is referred to as sensitivity rather than significance, with significance instead being used to describe the relationship between the magnitude of effects and the sensitivity of an asset. The Applicant's attention is drawn to the comments from the Joint Somerset Councils in Appendix 2.	**Volume 5.11.1** provides a description, explanation and justification of the method used in the assessment. The terminology used was altered to reflect the comments made by SoS, and a note explaining usage of terms is included in the Glossary.
The setting of cultural heritage resources could be affected; this includes historic buildings, historic landscapes and archaeological sites and the SoS considers that these should be addressed in the ES. Cross reference should be made to the Landscape and Visual section of the ES. The Applicant's attention is drawn to the detailed comments from English Heritage and the Joint Somerset Councils in Appendix 2.	Setting has been considered as part of the assessment provided in **Volume 5.11.1**. This work was carried out in conjunction with the Landscape and Visual Impact Assessment specialists.
The assessment should also take account of the potential impact of associated activities (such as construction activity, servicing and maintenance, and associated traffic).	All construction, operation and decommissioning phase components and activities of the Proposed Development are assessed in **Volume 5.11.1**.

Representation	Response
Geophysical survey must take place on areas of known archaeology and potential archaeology. Without information concerning the character, date and extent of assets it is not possible to understand an asset's significance. This also applies to trial trenching.	The scope of geophysical survey and trial trenching was developed further, with the ongoing input of statutory and non-statutory consultees. The results of geophysical survey and trial trenching are provided in the appendices of **Volume 5.11.1**.
Potential impacts should include the pylons and not be restricted to sealing end compounds, the overhead line and substations.	The assessment includes all activities and components of the Proposed development, as described in **Volume 5.3.1**.
LiDAR data from the Environment Agency should also be included in the data set as well as UES data from SCC.	LiDAR data has been obtained from the Environment Agency for assessment, the results of which are included in **Volume 5.11.1**.

Statutory Stage 4 Consultation

11.1.10 Statutory Stage 4 Consultation took place over a period of eight weeks between 3 September and 29 October 2013 in accordance with the Planning Act 2008. Statutory and non-statutory consultees and members of the public were included in the consultation. Various methods of consultation and engagement were used in accordance with the Statement of Community Consultation (SoCC) including letters, website, public exhibitions, publicity and advertising, inspection of documentation at selected locations and parish and town council briefings.

11.1.11 National Grid prepared a Preliminary Environmental Information Report (PEIR) which was publicised at this consultation stage. National Grid sought feedback on the environmental information presented in that report. Feedback received during Statutory Stage 4 Consultation was considered by National Grid and incorporated where relevant in the design of the project and its assessment and presentation in this ES.

11.1.12 A summary of the Statutory Stage 4 Consultation representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 6.1** (Consultation Report). A summary of the main Statutory Stage 4 Consultation representations received in relation to the historic environment are presented in the table below.

Table 11.2 Summary of the Main Historic Environment Statutory Stage 4 Consultation Representations Received

Representation	Response
Some mitigation strategies are insufficient to accord with paragraph 141 of National Planning Policy Framework (NPPF) and National Policy Statement (NPS) EN-1 5.8.20 as they will not "advance understanding … of heritage assets" and at this stage lack the detail to consider whether they are capable of compliance with paragraph 5.8.20 of National Policy Statement EN-1. The level and nature of impacts on a complex site require mitigation based on investigation aimed at understanding the asset and the processes that created it. This cannot be achieved through only recording during development.	It is acknowledged that the PEIR provided only provisional statements regarding mitigation. **Volume 5.26.4** - The Outline WSI details mitigation measures which have been consulted upon with the Local Authorities. **Volume 5.11.1** provides further detail on the assessment and subsequent mitigation that has been identified.

Draft ES and Supporting Documents

11.1.13 The Draft ES and a large number of the ES supporting documents were provided to a number of statutory and non-statutory bodies over a period of two weeks between 3 and 17 February 2014. This process of engagement (over and above that required by the statutory consultation process) was undertaken to provide an opportunity for these bodies to influence the assessment documents prior to their finalisation to accompany the DCO application.

11.1.14 A summary of the Draft ES representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 5.5.2, Appendix 5C.** A summary of the main Draft ES representations received in relation to the historic environment are presented in the table below.

Table 11.3 Summary of the Main Historic Environment Draft ES Representations Received

Representation	Response
National Grid has stated that overall, the proposed development would have a significant adverse effect on archaeological remains, built heritage and the historic landscape … but the scheme provides little in the way of mitigation. Specific mitigation measures to avoid significant harm as required by National Policy Statement	There is no requirement in EN-1 to avoid significant harm. EN-1 does not use the term 'significant harm' but identifies that harm can be substantial or less than substantial. In either case that harm should be weighed, by the decision maker, against the public benefit of the scheme.(EN-1, para 5.8.15)

Representation	Response
(NPS) EN-1 are set out in our detailed comments on heritage in Appendix A6.	
The material is comprehensive in terms of the requirements of National Policy Statement for Energy EN-1 (July 2011). However it is not fully compatible with the requirement of the National Planning Policy Framework paragraph 128.	NPPF Paragraph 128 identifies what should be included in an applicant's assessment. This paragraph is wholly consistent with paragraphs 5.8.8 – 5.8.10 of EN-1. However, EN-1 also directs that where the Proposed Development will affect the settings of heritage assets, representative visualisations may be necessary to explain the impact. EN-1 also directs that the applicant should ensure that the extent of the impact of the Proposed Development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.
Areas of high archaeological potential such as Puriton Ridge are recognised but no field assessment has taken place. The proposal is that further assessment takes place "So that the details of the proposed mitigation can be defined" (11.7.9). This does not conform to paragraph 128 of the National Planning Policy Framework and also risks the ES being deficient (as per the Hardy and Gillespie EIA cases), as all assessments should be carried out to inform the ES and not be undertaken as part of the mitigation process.	The ES demonstrates that there are no significant effects predicted in relation to heritage assets with archaeological interest that cannot be mitigated, and that those mitigation measures are effective and will not themselves have significant environmental effects. The mitigation proposed includes avoidance and archaeological recording and the Limits of Deviation (LoD) allow for both options to also be considered for as yet undiscovered heritage assets. EN-1 fully acknowledges the possibility that some development sites will have a high probability for as yet undiscovered heritage assets and paragraph 5.8.22 provides details of how this should be treated. The commitments of the ES are fully compliant with this requirement. The risk noted here that the ES could be deficient is contradictory to the previous statement that the material is comprehensive in terms of the requirements of the NPS.
The potential for impact on unknown heritage assets as part of planting schemes through the OSPES is not fully addressed as suggested in Chapter 11. As the OSPES only considers known assets (see Volume 5.25 6.6.5). Field assessment of planting areas would be more appropriate.	The majority of the proposed Off-site Planting and Enhancement Scheme (OSPES) is in relation to thickening of hedgerows and of such scope that evaluation would be disproportionate. However, where broader areas of planting are proposed it is noted that as the delivery of these works will be within the control of the LPAs we strongly advise their internal consultation to ensure that the potential of the impact of the planting on heritage assets with archaeological interest is evaluated.

Representation	Response
During Thematic Group meetings (and raised in s42 response) discussions were held concerning possible offsetting of impacts on heritage assets. These focused on the potential for mitigation strategies to include more detailed excavations of a single type of asset that the development is likely to partially (but substantially) impact rather than a series of separate mitigations.	This was discussed at the Thematic Group and it was explained that National Grid cannot deliver intrusive archaeological mitigation works outside of the Order Limits without landowner consent. Within the Order Limits National Grid will deliver proportionate recording of heritage assets affected by the works, and this could include, where relevant and necessary, excavation outside of the development footprint but within the Order Limits.
s106 arrangements as mitigation. The Joint Council response included various references to measures to offset or compensate for loss of heritage significance	Harm to heritage assets with archaeological interest will be mitigated through the measures set out in the Outline WSI. No substantially harmful effects are predicted in relation to the settings of heritage assets, and the majority of the effects on the settings of heritage assets are of no more than negligible magnitude. It would therefore be disproportionate to provide a range of additional measures under s106 arrangements.

11.1.15 In addition, various representations were made that relate to the mitigation arrangements proposed in relation to a specific heritage asset. These comments have been adopted in full, and the Outline WSI amended accordingly.

11.1.16 A number of representations also related to visualisations and it is noted that a number of photomontage images were not available at the time of the consultees' review of the draft ES. These photomontages have however been completed and are included in the ES (**Volume 5.18.1 – 5.18.3**). **Volume 5.18.3** provides a number of viewpoints that relate specifically to heritage assets.

Thematic Group Meetings

11.1.17 Following the preferred route corridor announcement in September 2011 (see **Volume 5.2.1**), National Grid established three Thematic Groups (landscape and visual; biodiversity; and the historic environment) comprising technical officers from local authorities and statutory consultees. In addition, three Local Community Forums and one Strategic Community Forum were established. These provided advice and commented on the information which National Grid gathered to use in its studies.

11.1.18 The Historic Environment Thematic Group was attended by representatives from the historic environment and conservation teams at Somerset County Council, North Somerset Council, Sedgemoor District Council, Bristol City Council, South Gloucestershire Council, and English Heritage. The survey methods described

below were discussed at these meetings. The results of the on-going surveys were also presented to the meetings, and the baseline data discussed to identify any areas where additional more detailed assessment was likely to be required. The results of field surveys were provided, in draft form, to the Thematic Group members.

11.1.19 Members of the Thematic Group were also invited to identify assets where they felt that additional visualisations may help to determine the likely effect of the Proposed Development on the setting of the asset. These visualisations are referenced in **Volume 5.11.2, Appendix 11B** and included in **Volume 5.18.3** (Photomontages).

11.1.20 The strategy for the mitigation of effects on archaeology and historic landscape assets was also discussed with the Thematic Group members in the preparation of the Outline WSI (**Volume 5.26.4**).

11.2 Legislation, Policy and Guidance

Legislation

11.2.1 National legislation relevant to this chapter is contained in:

- *Ancient Monuments and Archaeological Areas Act, 1979*: It is a criminal offence to carry out any works on or to a Scheduled Monument (SM) without Scheduled Monument Consent (SMC). SMC is required for works described by Section 2 (part 2, a, b, and c) of the Act (Ref. 11.2); such works include demolition or destruction of or any damage to a SM, any works for the purpose of repairing or altering a SM, and any flooding or tipping operations on land in, on, or under which there is a SM. This Act makes no reference to the setting of Scheduled Monuments.

- *Statutory Instrument 1997/1160 'The Hedgerow Regulations'*: A local planning authority can issue a 'hedgerow retention notice' in the case of an 'important hedgerow'. Schedule 1, Part II, of the Hedgerow Regulations provides a set of criteria for determining 'important hedgerows' in relation to archaeology and history.

- *Electricity Act, 1989*: Schedule 9 of the Electricity Act states that when formulating proposals, developers, "(a) shall have regard to the desirability of…protecting sites, buildings and objects of architectural, historic or archaeological interest; and (b) shall do what he reasonably can to mitigate any effect which the proposals would have on…any such…sites, buildings or objects".

11.2.2 As this Proposed Development will be examined under the Planning Act, 2008, the Planning (Listed Buildings and Conservation Areas) Act, 1990 does not apply. Regulation 3 of the Infrastructure Planning (Decisions) Regulations, 2010, provides instead that:

- *Listed buildings, conservation areas and scheduled monuments*

(1) When deciding an application which affects a listed building or its setting, the [Secretary of State] must have regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses.

(2) When deciding an application relating to a conservation area, the [Secretary of State] must have regard to the desirability of preserving or enhancing the character or appearance of that area.

(3) When deciding an application for development consent which affects or is likely to affect a scheduled monument or its setting, the [Secretary of State] must have regard to the desirability of preserving the scheduled monument or its setting.

Policy

National Policy Statements

11.2.3 The assessment of potential effects has been made with specific reference to relevant NPSs; these form the principal policy framework within which decisions on Nationally Significant Infrastructure Projects (NSIP) are made.

11.2.4 The principal guidance for examination of the application is that provided by Overarching National Policy Statement for Energy (EN-1) and National Policy Statement for Electricity Networks Infrastructure (EN-5).

11.2.5 NPS EN-1 is directly relevant to this chapter and the relevant sections and how they have been addressed are summarised in the table below.

Table 11.4 Summary of NPS EN-1 Requirements Relevant to the Historic Environment

Para	Requirement	ES Section	Compliance Assessment
5.8.8	As part of the ES the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance.	Section 11.4 of this Volume	**Volume 5.1.1** provides a description of the significance of the heritage assets affected by the Proposed Development at section 11.5 and in **Tables 11.18 and 11.19. Volume 5.1.2, Appendix 11B** includes a description of the contribution made by setting to the significance of assets affected by the Proposed Development.

Para	Requirement	ES Section	Compliance Assessment
5.8.8	As a minimum the applicant should have consulted the relevant Historic Environment Record and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.	Section 11.4 of this Volume	The applicant has consulted the relevant Historic Environment Records and has assessed the heritage assets themselves using expertise. This assessment is provided in section 11.4 of this Volume and described in more detail in **Volume 5.11.2, Appendices 11A and 11B**
5.8.9	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.	Section 11.4 of this Volume	This development site includes, and has the potential to include, heritage assets with an archaeological interest. The applicant has undertaken desk-based assessment (reported in **Volume 5.11.2, Appendix 11B)** and field evaluation. This comprised geophysical survey, trenched evaluation and geoarchaeological assessment, undertaken at locations where desk-based assessment alone was not sufficient to fully assess the heritage interest. These are included as **Volume 5.11.2, Appendices 11C - 11E.**
5.8.9	Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.	**Volume 5.18**	Where the Proposed Development would affect the setting of a heritage asset, representative visualisations have been provided where necessary to explain the impact. 29 of the visualisations presented in **Volume 5.18** help to explain the effect of the Proposed Development on the settings of heritage assets. Of these, five were prepared specifically for heritage assets.
5.8.10	The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.	Section 11.5 of this Volume	The applicant has ensured that the extent of the impact of the Proposed Development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents. This information is provided in **Volume 5.11.1 and Volume 5.11.2, Appendices 11A and 11B.**

Para	Requirement	ES Section	Compliance Assessment
5.8.11	In considering application, The IPC should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including be development affecting the setting of a heritage assets.	**Volume 5.11.1, Tables 11.18 and 11.19**	The ES identifies and assesses the particular significance of heritage assets affected by the Proposed Development and provides a summary of the significant effects in **Volume 5.11.1, Tables 11.6 and 11.7.**
5.8.14	There should be a presumption (by the IPC) in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. 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.	Section 11.5 and 11.8 of this Volume	The Proposed Development will not result in any substantially harmful effects in relation to any designated heritage assets. The ES describes that the residual effects (arising from development within the settings of designated heritage assets) are less than substantial.
5.8.15	Where the application will lead to substantial harm to or total loss of significance of a designated heritage asset the IPC should refuse consent unless it can be demonstrated that the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that loss or harm.	Section 11.5, 11.7 and 11.8 of this Volume	The Proposed Development will not result in any substantially harmful effects in relation to any designated heritage assets. The ES describes that the residual effects (arising from development within the settings of designated heritage assets) are less than substantial.

Para	Requirement	ES Section	Compliance Assessment
5.8.20	Where the loss of the whole or a material part of a heritage asset's significance is justified, the IPC should require the developer to record and advance understanding of the significance of the heritage asset before it is lost. The extent of the requirement should be proportionate to the nature and level of the asset's significance. Developers should be required to publish this evidence and deposit copies of the reports with the relevant Historic Environment Record. They should also be required to deposit the archive generated in a local museum or other public depository willing to receive it.	**S**ection 11.5, 11.7 and 11.8 of this Volume and the Outline WSI **(Volume 5.26.4)**	The Outline WSI includes measures to record and advance understanding of the significance of heritage assets with archaeological interest affected by the Proposed Development, before they are lost. The measures are proportionate to the nature and level of the affected assets' significance. The measure include provisions to publish the evidence and deposit copies of the reports with the relevant Historic Environment Records, and to deposit the archive with whichever local museum or other public depository is willing to receive it.
5.8.21	Where appropriate, the IPC should impose requirements on a consent that such work is carried out in a timely manner in accordance with a written scheme of investigation that meets the requirements of this Section and has been agreed in writing with the relevant Local Authority and that the completion of the exercise is properly secured	Outline WSI **(Volume 5.26.4)**	The measures provided in the Outline WSI will be agreed in writing with the relevant Local Authority and will be secured by DCO Requirement, placed on consent that such work is carried out in a timely manner in accordance with a WSI. The draft Requirement included in Schedule 2 requires the implementation of works outlined in a WSI that is provided in **Volume 5.26.4**.

Para	Requirement	ES Section	Compliance Assessment
5.8.22	Where the IPC considers there to be a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, the IPC should consider requirements to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction	Schedule 2 Requirements; **Volume 5.26.5**	The Outline WSI includes procedures for the identification and treatment of heritage assets with archaeological interest discovered during construction.

National Planning Policy Framework

11.2.6 The NPPF does not set policy for testing the acceptability of NSIPs. However, Section 12 relates to the Historic Environment and is consistent with the policies of EN-1 as set out in **Table 11.4** above.

Local Policy

11.2.7 Similar to NPPF, local policy does not set policy for testing the acceptability of NSIPs. However, there are a number of local planning policies that reference the historic environment and which have guided technical design and route options of the Proposed Development, through the identification of both designated and non-designated heritage assets.

11.2.8 Relevant local policy is summarised below and provided in **Volume 5.11.2, Appendix 11A** and **Volume 5.4.2, Appendix 4A:**

- Bristol City Core Strategy (2011)
  - BCS22 – Conservation and Historic Environment
- Bristol City Council Local Plan saved policies (1997)
  - NE9 – Historic Landscapes
  - B22 – Sites of Archaeological Significance
- North Somerset Council Core Strategy (2013)
  - CS5 - Landscape and a Historic Environment
- North Somerset Council Local Plan saved policies (2007)
  - ECH/3 – Conservation Areas
  - ECH/4 – Listed Buildings
  - ECH/5 – Historic Parks and Gardens
  - ECH/6 – Archaeology
- Sedgemoor District Council Core Strategy (2011)

    - D17 - Historic Environment
- Sedgemoor District Council Local Plan saved policies (2004)
    - HE4 – Criteria for Development Proposals in Conservation Areas
    - HE9 – Areas of High Archaeological Potential
    - HE12 – Archaeological Sites of Local Importance
- South Gloucestershire Core Strategy (2013)
    - CS9 – Managing the Environment and Heritage
- South Gloucestershire Local Plan saved policies (2006)
    - L11 – Archaeology
    - L12 – Conservation Areas
    - L13 – Listed Buildings

Policy Summary

11.2.9 Common to the local planning policies referenced above is the enhancement and conservation of the historic environment, including conservation areas, listed buildings, scheduled monuments and archaeological sites of local importance.

11.2.10 Common to the NPS and NPPF (EN-1 paragraphs 5.88 -5.10 and NPPF paragraph 128) is the requirement to identify assets that may be affected by the Proposed Development. Also, to assess the significance of those assets (including the contribution made by setting to significance), assess the likely effects of the Proposed Development on the heritage significance of those assets (including any harm caused by development within an asset's setting) and to outline measures to mitigate any predicted adverse effects.

11.2.11 The remaining sections of this chapter outline the methods used to identify historic environment receptors (including all of those asset types referenced in local planning policies), and to assess their significance. The chapter also assesses the likely significant effects of the Proposed Development on those receptors during construction, operation and decommissioning. The chapter also sets out proposed measures to mitigate any predicted adverse effects and describes any residual effects which cannot be fully mitigated. The methods provided below are therefore consistent with National and Local policy provisions with regards to the Historic Environment.

Guidance

11.2.12 The National Planning Practice Guidance provides additional advice in relation to the application of the NPPF. Relevant to this chapter of the ES is the section 'Conserving and enhancing the historic environment' (Ref. 11.3). The Practice Guidance includes advice on what constitutes substantial harm to a designated heritage asset. In relation to this the guidance states that:

"In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed. The harm may arise from works to the asset or from development within its setting".

11.2.13 The method of assessment outlined below has also been informed by the following guidance documents:

- Somerset County Council's Heritage Service Archaeological Handbook (Ref. 11.4);
- The Highways Agency's Design Manual for Roads and Bridges (DMRB) (Ref. 11.5); and
- English Heritage, Conservation Principals (Ref. 11.6).

11.2.14 The method of assessment was also informed by the Institute for Archaeologists (IfA) Standard and Guidance Documents for:

- historic environment desk based assessment (IfA, 2012);
- archaeological field evaluation (IfA, 2013); and
- archaeological geophysical survey (IfA, 2013).

11.2.15 The method for assessing the effects of the Proposed Development on the settings of heritage assets accords with English Heritage guidance (Ref. 11.7). This document provides a recommended approach to assessing the implications of development proposals on the setting of heritage assets. The key principles for assessing the implications of change affecting setting are:

- Understanding the significance of a heritage asset will enable the contribution made by its setting to be understood.
- Change capable of affecting the significance of a heritage asset or people's experience of it can be considered as falling within its setting.
- A proper assessment of the impact on setting will take into account, and be proportionate to, the significance of the asset and the degree to which proposed changes enhance or detract from that significance and ability to appreciate it.

11.2.16 The five 'steps' to assessing the effects of development on the settings of heritage assets are described by English Heritage as:

- Step 1: Identifying the heritage assets affected and their settings;
- Step 2: Assessing whether, how and to what degree these settings make a contribution to the significance of the asset(s);
- Step 3: Assess the effects of the Proposed Development, whether beneficial or harmful, on that significance;
- Step 4: Explore the way maximising enhancement and avoiding or minimising harm; and
- Step 5: Make and document the decision and monitor outcomes.

11.2.17 A more detailed précis of the guidance documents relevant to this assessment is provided in **Volume 5.11.2, Appendix 11A**.

Climate Change

11.2.18 Planning practice guidance relevant to this chapter is also contained in PPS5: Historic Environment Planning Practice Guide (HEPG) (Ref. 11.8). The HEPG was not revoked with PPS5, and is still material.

11.2.19 Paragraphs 21-26 of the PPS5 HEPG provide current Government guidance in relation to climate change and the historic environment. Paragraph 26 relates particularly to large-scale energy projects, and is directly relevant to this Proposed Development. It states:

"*Proposals for large-scale schemes, such as wind farms, that have a positive role to play in the mitigation of climate change and the delivery of energy security, but which may impact on the significance of a heritage asset, such as a historic landscape, should be carefully considered by the developer and planning authority with a view to minimising or eliminating the impact on the asset. Ideally, the proposals should be discussed at the pre-application stage to establish an acceptable balance between the necessity for measures that meet the challenge of climate change and the importance of conserving the significance of the asset*."

11.2.20 English Heritage also provides a statement on climate change (Climate Change and the Historic Environment, EH 2008, Ref. 11.9). This document recognises that "*without action to mitigate and respond to its impacts, climate change will cause severe disruption to society and inflict serious impact on the environment, including the historic environment*". English Heritage therefore "*recognises the need to reduce greenhouse gas emissions by decreasing fossil fuel use ... and exploiting low carbon technologies and renewable energy sources*". However, the statement also notes that some "*policies for adaptation and mitigation may have a damaging effect on historic buildings, sites and landscapes*". The statement notes that new renewable energy infrastructure can also have direct impacts on archaeological remains.

11.3 Method

Study Areas

11.3.1 The study areas used for this assessment encompass all locations where effects on the historic environment may result from the Proposed Development. Study areas were defined to be of sufficient breadth to determine the potential for direct effects on known heritage assets, effects on previously unidentified heritage assets, and effects on the heritage significance of assets resulting from development within their settings.

11.3.2 Baseline data collection was carried out for a series of study areas extending up to 10km from the Proposed Development. Designated heritage assets are shown on **Volume 5.11.3, Figure 11.1**.

11.3.3 The study areas were defined after first considering the likely extent of setting of certain classes of heritage assets. Setting is defined in the NPPF as the surroundings in which a heritage asset is experienced, and this definition has been followed in determining the study areas used for this chapter of the ES. For example, some Scheduled Monument (e.g. hillforts), Registered Parks and Gardens (e.g. designed landscapes) and Listed Buildings (e.g. castles, religious buildings) have extensive intentional or unintentional setting relationships. Other assets, including Listed Buildings of a domestic character, small or enclosed Registered Parks and Gardens, and some Conservation Areas, have more intimate or localised settings, which are unlikely to be altered by very distant visual impacts, even if areas of potential change can be perceived from the asset. Considering the degree to which more distant landscape setting contributes to the heritage significance of an asset is important to "Step 1" of the English Heritage guidance on the setting of heritage assets, identifying which heritage assets and their settings may be affected. This document advises "due regard to the need for proportionality" in specifying an area of search around the Proposed Development within which it is reasonable to consider setting effects (Ref. 11.7).

11.3.4 The following study areas were therefore used in defining the baseline conditions of this assessment:

Table 11.5 Study Area by Heritage Asset Type

Asset Type	**Grade**	**Study Area (Distance from Order Limits)**
Listed Building	Grade I	10km
	Grade II*	10km
	Grade II	2km
Registered Parks and Gardens	Grade I	10km
	Grade II*	2km
	Grade II	2km
Scheduled Monuments	N/A	10km
Conservation Areas	N/A	2km
Registered Battlefields	N/A	2km
Non-designated historic parks	N/A	2km
Historic hedgerows	N/A	200m

11.3.5 Data from the historic landscape characterisation projects (referenced in more detail at **Volume 5.11.2, Appendix 11A**) undertaken for the area of the Proposed

Development was obtained for the Route Corridor Study, so encompassed an area of search that included but was greater in extent than the selected Route Corridor. This data provides a comprehensive understanding of the surviving historic character of the landscapes through which the Proposed Development is routed. The historic landscape character zones are shown on **Volume 5.11.2, Appendix 11A, Figure 3**.

11.3.6 The study area used for the desk-based assessment was sufficiently inclusive to allow for informed design development, and to ensure that archaeological trends outside of the Order Limits were identified to assist in predicting archaeological potential within the Order Limits.

11.3.7 Non-designated heritage asset data obtained from the sources referenced has been cropped to create a gazetteer of all assets within the Order Limits plus 100m. This gazetteer corresponds to assets shown on **Volume 5.11.3, Figure 11.2** and is included in **Volume 5.11.2, Appendix 11A**. This database includes assets that may be reasonably expected to extend beyond their known area into within 100m of the Order Limits. The baseline data analysed for the earlier studies, which included but was greater in extent than the selected Route Corridor, was used in determining the likely potential for archaeological remains (along with other published secondary sources) assessed and presented in **Volume 5.11.2, Appendix 11A**.

11.3.8 Baseline data collated for this chapter of the ES was therefore sufficient to undertake an assessment of effects inclusive of all construction activities within the Order Limits and of any variations in the final alignment that could arise from the Limits of Deviation (LoD) (see **Volume 5.5.1,** section 5.6 for further details).

11.3.9 Field reconnaissance survey was carried out within a 50m study area either side of the centre lines of the proposed new 400kV route alignment, the 132kV overhead lines to be removed and 132kV overhead line local connections, and either side of new substation and cable sealing end (CSE) compound sites, compound sites, and access tracks. This survey is reported in **Volume 5.11.2, Appendix 11C**.

11.3.10 Geophysical survey was carried out within the development footprint of substations and underground cabling, and a number of pylon bases, access tracks and other works areas, as agreed with the statutory and non-statutory consultees. This survey is reported in **Volume 5.11.2, Appendix 11D**.

11.3.11 Archaeological trial trenching survey was carried out in areas of high archaeological potential, or where a direct effect was predicted on a known heritage asset in order to design an appropriate mitigation strategy. This survey is reported in **Volume 5.11.2, Appendix 11E**.

Sources of Baseline Data

11.3.12 To establish the baseline conditions with regard to the historic environment the following surveys have been undertaken:

- compilation of desk-based records;
- assessment of significance of heritage assets, including the contribution made by setting to significance where relevant;
- historic map regression;
- field reconnaissance survey;
- geoarchaeological desk-based assessment and survey;

- geophysical survey; and
- archaeological trial trenching survey.

11.3.13 Full details of the methods and results of these surveys are provided in **Volume 5.11.2, Appendices 11A - 11E**.

Desk Based Assessment

11.3.14 Between November 2012 and June 2013, desk-based assessment was undertaken to identify heritage assets that may be affected by the Proposed Development and assist in predicting the potential for archaeological remains within the area affected. Principal data sources used for the desk-based assessment included:

- heritage assets held in South Gloucestershire Council Historic Environment Record (HER), obtained 03/2013;
- heritage assets held in City of Bristol HER, obtained 03/2013;
- heritage assets held in North Somerset Council HER, obtained 03/2013;
- heritage assets held in Somerset County Council HER, obtained 03/2013;
- heritage assets held in English Heritage National Monuments Record (NMR), obtained 03/2013;
- heritage assets held in The National Heritage List for England website, obtained 06/2012-06/2013;
- aerial photographs maintained by the NMR, obtained 05/2013;
- documentary/cartographic sources at Gloucestershire Archive, obtained 05/2013;
- documentary/cartographic sources at Bristol City Archive and HER, obtained 05/2013;
- documentary/cartographic sources at North Somerset Archive and HER, obtained 05/2013;
- documentary/cartographic sources at Somerset Archive, obtained 05/2013;
- Historic Ordnance Survey mapping held by GroundSure Environmental Insight (GEI), obtained 05/2013;
- Defence of Britain project records held by the Archaeological Data Service, obtained 07/2012;
- Historic Landscape Characterisations (HLCs) for Avon, and for Somerset and Exmoor National Park, obtained 07/2012;
- Conservation Area appraisals and Conservation Management Plans, where available, obtained 07/2012;
- Somerset County Council historic farmstead surveys, provided by SCC 04/2013;
- details of assets under consideration for designation from English Heritage, obtained 04/2013;
- LiDAR data and modern aerial photographs obtained by National Grid Electricity Transmission plc (National Grid), surveyed 06/2010; 11/2011; 10/2012;

- LiDAR data collected by the Environment Agency, obtained 06/2013;
- locally registered parks and gardens held by City of Bristol HER, obtained 04/2013;
- locally registered parks and gardens held by Somerset County Council HER, obtained 04/2013; and
- selected published secondary sources relating to the history and archaeology of South-West England (a bibliography is provided in **Volume 5.11.2, Appendix 11A**).

Assessing the Settings of Heritage Assets

11.3.15 For those assets where the Proposed Development may be capable of affecting the contribution made by setting to significance, a further assessment was made, in line with "Step 1" of the English Heritage guidance (Ref. 11.7) of whether, how and to what degree setting contributed to the heritage significance of those assets. This assessment included desk-based and field research, as directed by English Heritage, to determine "*what matters and why"* in terms of the setting and its appreciation.

11.3.16 For a number of heritage assets this analysis identified that the Proposed Development would not be capable of affecting the contribution made by the assets' settings to their significance, and these were excluded from further more detailed survey. For assets where the analysis determined that the heritage assets' settings did make a positive contribution to their significance and the Proposed Development may be capable of affecting the significance of the asset, Steps 2 and 3 of the assessment method outlined by English Heritage (Re. 11.6) were undertaken. The key attributes of the assets, the character of the assets setting, and how and the degree to which that contributes to the significance, or appreciation of the significance, of the assets was recorded to provide the baseline for an assessment to be made of the degree to which significance could be harmed by the construction and operation of the Proposed Development. A detailed method for the assessment of effects on the settings of heritage assets is provided in **Volume 5.11.2, Appendix 11B**.

Field Reconnaissance Survey

11.3.17 Between April and October 2013, an area that included the Order Limits and a 50m buffer either side was visited and surveyed by a suitably qualified and experienced archaeologist.

11.3.18 The field reconnaissance survey focused on the area of the Proposed Development (unlike the study area for the desk-based assessment described above which takes an inclusive approach, and allows for the archaeological evidence to be placed in context). The survey assessed the visible character, extent, survival and preservation of all known above-ground heritage assets within the Order Limits and those adjacent known assets that may extend into the Order Limits. The study also identified several previously unrecorded heritage assets, and recorded the presence and character of field boundaries, land parcels and other historic landscape elements. The results of this survey are reported in **Volume 5.11.2, Appendix 11A**.

Archaeological Geophysical Survey

11.3.19 Between April and October 2013, magnetometer survey was carried out along all sections of underground cabling and the sites of substations and CSE compounds. The geophysical survey aimed to establish by non-intrusive means the presence or absence of anomalies that may or may not be archaeological in origin, in areas that would be affected by the Proposed Development, and to determine the nature, extent, and heritage significance of any such anomalies. The scope and method of the magnetometer surveys was the subject of a WSI, which were commented on by local development control archaeologists. The results of this survey are reported in **Volume 5.11.2, Appendix 11C**.

Archaeological Trial Trenching Survey

11.3.20 Between August and November 2013, a targeted programme of archaeological trial trenching was carried out to provide, where necessary, a more detailed understanding of the archaeological interest of some of the heritage assets that could be affected by the Proposed Development.

11.3.21 The archaeological trial trenching survey aimed to confirm the presence or absence, character and extent of archaeological remains in areas that would be affected by the Proposed Development, and to determine, as far as possible, the heritage significance of any such archaeological remains. The results of this survey are reported in **Volume 5.11.2, Appendix 11D**.

Assessment of Palaeo-environmental and Geoarchaeological Potential

11.3.22 Between April and November 2013, site investigation works undertaken for geotechnical purposes were monitored by an appropriately qualified geoarchaeologist to help determine the potential for survival of palaeo-environmental deposits and remains of geoarchaeological potential.

11.3.23 The results of this survey were combined with a geoarchaeological desk-based assessment, to carry out a sub-surface modelling exercise to predict areas of archaeological and palaeo-environmental significance. Published geological information and the results of previous borehole investigations available on the British Geological Survey website (Ref. 11.10) were studied as part of a desk-based assessment.

11.3.24 Areas of high geoarchaeological and/or palaeo-environmental potential were identified using the results of the works detailed above. This data formed the basis of a sub-surface deposit modelling exercise to understand buried landscapes within the study area and predict areas of high archaeological potential. The results of these investigations are reported in **Volume 5.11.2, Appendix 11E**.

Input to the Design Process

11.3.25 The historic environment has been a consideration for the Hinkley Point C Connection throughout its development (from the identification of route corridors, to selection of a preferred route corridor and then identification of the preferred alignment), and was a key component of the design process during on-going environmental assessment. The historic environment impact assessment considers the current design, which has been developed in collaboration between engineering and environmental specialists. As a result, potential adverse effects on a number of heritage assets have been reduced or avoided completely. The alternative proposals assessed during the development of the proposed new connection are detailed in **Volume 5.2.1**.

11.3.26 Preferred corridor selection minimised the scale of change to the historic environment, as this would replace a lower voltage 132kV overhead line with a 400kV overhead line in broadly the same area. Connection options assessment identified that widespread, direct adverse effects on archaeological remains would be avoided if underground cabling did not take place on the Somerset and North Somerset Levels. In addition, numerous areas were identified where adverse effects resulting from changes to assets' settings could be minimised by adopting particular overhead line options, or suggesting an alternative route in localised areas.

11.3.27 Input to the design process has also been provided regarding different options for siting of various specific components of the Proposed Development, to avoid physical impacts and reduce or avoid impacts related to setting. National Grid's historic environment consultants have also provided advice regarding different design options, such as the use of overhead lines or underground cabling, different pylon designs and use of different materials.

11.3.28 Further input into the design process considered alteration of the micro-siting of pylons, precise location of underground cable trenches within the Order Limits, location and construction of access tracks and haul roads, and use of non-open cut techniques to pass assets such as historic hedgerows. Any such opportunities to reduce or negate adverse effects were investigated as part of the dialogue between engineering designers and historic environment specialists.

Assessment of Effects

11.3.29 In common with other topics, and following the approach advocated by EN-1, a staged assessment was carried out to determine the significance of effects of the Proposed Development on the historic environment. This involved establishing the historic environment baseline to determine the heritage significance of assets that may be affected, including any contribution made by setting to that significance, and assessing the magnitude of effect of the Proposed Development on that heritage significance. By comparing the heritage significance of the asset and the magnitude of change, the overall significance of effect has been determined.

Assessing Heritage Significance

11.3.30 The heritage significance of an asset is understood in terms of its heritage interest, as described by the NPPF Glossary (Ref. 11.11), or heritage value, as described by English Heritage in Conservation Principals (Ref. 11.6). Assessing the significance

of assets also requires an understanding of the contribution made by the assets' settings to its heritage significance.

11.3.31 For those assets that are designated (Listed Buildings, Scheduled Monuments, Registered Parks and Gardens and Conservation Areas), the heritage significance is recorded as 'high' or 'very high', as these assets meet the national criteria for designation under the relevant legislation. Listed Buildings and Registered Parks and Gardens are graded (I, II* and II) according to relative significance. EN-1 (Ref. 11.1, paragraph 5.8.14) defines Scheduled Monuments, registered battlefields, grade I and II* listed buildings, and grade I and II* registered parks and gardens as designated heritage assets "of the highest significance". While within the broad categories outlined in the table that follows, some assets will be more significant than others (as will the contribution made by setting to significance) the categories of 'high' and 'very high' align with this description.

11.3.32 Paragraph 5.8.4-5 of EN-1 directs decision makers that archaeological remains that are of demonstrably equivalent heritage significance to Scheduled Monuments should be subject to the same policy considerations as those that apply to designated heritage assets. Any assets that meet the criteria for such consideration have been identified in the baseline conditions described below. In addition, sites within the study area that are currently under consideration for designation have been treated in the assessment as if they were already designated. For all other non-designated heritage assets the assessment is a professional judgement of relative importance, based on Conservation Principals (Ref. 11.6).

Table 11.6 Criteria used to Determine Heritage Significance

Heritage Significance	Description	Examples
Very High	Nationally or internationally significant heritage assets generally recognised through designation as being of exceptional interest and value.	World Heritage Sites Grade I & II* Listed Buildings Grade I & II* Registered Parks and Gardens Scheduled Monuments
High	Nationally significant heritage assets generally recognised through designation as being of great interest and value.	Grade II Listed Buildings Grade II Registered Parks and Gardens Conservation Areas Registered Historic Battlefields
Moderate	Heritage assets recognised as being of special interest, contributing to regional research aims.	Non-designated heritage assets of regional importance

Heritage Significance	Description	Examples
Low	Assets that are of interest at a local level.	Locally listed and other historic buildings Non-designated archaeological sites of local importance Non-designated historic parks and gardens
Negligible	Elements of the historic environment which have limited heritage significance, this can include assets that have been partially destroyed.	Non-designated features with very limited or no historic value and / or little or no surviving archaeological or historic interest

Assessing the Magnitude of Effect

11.3.33 The heritage significance of an asset can be harmed or lost through its alteration or destruction, or through changes within its setting.

11.3.34 The former relates to any physical harm, including total or partial loss of the significance of the asset. Development within the setting of an asset can result in a reduced ability to experience and understand its heritage significance. English Heritage identifies in their advice document “The Settings of Heritage Assets” (Ref. 11.7) that setting is not a heritage asset, nor a heritage designation: its importance lies in what it contributes to the significance of an asset. Significance can therefore only be harmed or lost if the significance of the asset is in some way derived from that part of the setting adversely affected by the Proposed Development.

11.3.35 The effect of development within the setting of a heritage asset can also be beneficial, for example where historic features are restored or revealed.

11.3.36 The assessment of magnitude of effect in this chapter, including both physical effects to archaeological remains and historic landscape assets and effects to the settings of heritage assets, is based on the Proposed Development described in **Volume 5.3.1** and illustrated at **Volume 5.3.3, Figures 3.1 – 3.2**.

Table 11.7 Criteria used to Determine the Magnitude of Effect

Magnitude of Effect	Description of Nature of Change
High Adverse	Considerable harm to, or total loss of, an asset’s heritage significance as a result of changes to its physical form or setting. This would include demolition, removal of physical elements critical to understanding or appreciating the significance of an asset, loss of all archaeological interest, or change to an asset’s setting that fundamentally compromises the ability to understand or appreciate its significance.

Magnitude of Effect	Description of Nature of Change
Moderate Adverse	Harm to, or partial loss of, an asset's heritage significance as a result of changes to its physical form or setting. This could include physical alterations that remove or alter some elements of heritage significance but do not substantially alter the overall significance of the asset, notable alterations to the setting of an asset that affect our appreciation of it and its significance, or the unrecorded loss of archaeological interest.
Low Adverse	Limited harm to, or loss of, an asset's heritage significance as a result of changes to its physical form or setting. This could include physical changes that alter some elements of heritage significance but the ability to appreciate or understand the significance of the asset is largely unaltered.
Negligible Adverse	Very minor harm to an asset's heritage significance; baseline conditions are largely unaltered. This could include very small physical damage to individual elements of an asset from which little of its heritage significance is derived, or alterations to setting that are perceptible but from which little or no heritage significance is derived
None	No change to an asset's heritage significance.
Negligible Beneficial	Very minor improvement to an asset's heritage significance; baseline conditions are largely unaltered. This could include alterations to setting that are perceptible but from which little or no heritage significance is derived.
Low Beneficial	Limited improvement of an asset's heritage significance as a result of changes to its physical form or setting. This could include physical changes that reveal or conserve some elements of heritage significance, or small-scale alterations to the setting of an asset that improve our ability to appreciate it.
Moderate Beneficial	Notable enhancement of an asset's heritage significance as a result of changes to its physical form or setting. This could include physical alterations that conserve or restore elements of heritage significance, notable alterations to the setting of an asset that improve our appreciation of it and its significance, or changes in use that help safeguard an asset.
High Beneficial	Substantial enhancement of an asset's heritage significance as a result of changes to its physical form or setting. This could include major changes that conserve or restore elements of high heritage significance, alterations to the setting of an asset that very substantially improve our appreciation of it and its significance, or changes in use that safeguard an asset.

Determining the Significance of Effect

11.3.37 The overall significance of effect is then determined by comparing the heritage significance and magnitude of affect. The matrix outline below provides a formulaic framework for assessment, but professional judgement is also used at all stages in the process of reaching a conclusion regarding the significance of effect.

Table 11.8 Criteria used to Determine the Significance of Effect

		Magnitude of Effect				
Heritage Significance		**High**	**Moderate**	**Low**	**Negligible**	**None**
	Very High	Major	Major	Moderate	Moderate/ Minor	Neutral
	High	Major	Major/ Moderate	Moderate/ Minor	Minor	Neutral
	Moderate	Major/ Moderate	Moderate	Minor	Minor/ Negligible	Neutral
	Low	Moderate	Minor	Minor/ Negligible	Minor/ Negligible	Neutral
	Negligible	Minor	Minor/ Negligible	Minor/ Negligible	Neutral	Neutral

11.3.38 In the assessment narrative below, effects are identified as beneficial or adverse. Major adverse effects are broadly equivalent to 'substantial harm' (the term used in EN-1, Ref. 11.1, paragraph 5.8.14- 5.8.15). Moderate and minor effects are the equivalent to 'less than substantial harm'.

11.3.39 The significant effects described below include effects on historic environment receptors predicted in relation to the current design of the connection, as well as other activities within the Order Limits including creation of haul roads and access tracks, scaffolds, working areas and temporary work compounds. A deliberately inclusive approach has therefore been taken in determining the likely significant effects of the Proposed Development on historic environment receptors.

11.3.40 Similarly, the LoD has been taken into account in determining the significant effects on historic environment receptors and again an inclusive approach has been taken in predicting the significant effects of the Proposed Development on historic environment receptors based on both the current design and any variations that could arise within the LoD described in **Volume 5.5.1.**

11.4 Baseline Environment

11.4.1 The following provides a summary of the relevant baseline conditions for designated and non-designated archaeological remains, historic buildings and historic landscape components. This summary is supported by more detailed information in **Volume 5.11.2, Appendix 11A**, including:

- a summary, narrative description of the historic development of the study area;
- a review of relevant national and regional research objectives in relation to the historic environment in the study area;
- a gazetteer of historic buildings, historic landscape components, and known and potential archaeological sites; and
- a suite of figures that locate the heritage assets listed in the gazetteer and show historic ordnance survey mapping, LiDAR data and historic landscape character.

11.4.2 The historic environment base case (see **Volume 5.5.1,** section 5.6 for further details) could differ from the baseline conditions, if an asset's designated status is altered or any, as yet undiscovered heritage assets with archaeological interest, are identified through third party (e.g. local archaeology groups) surveys within the Order Limits. However, as baseline data collection included consultation with the relevant statutory and non-statutory consultees responsible for designations and for dissemination of third party survey data, the likelihood of either occurring is low and, in any event, would not necessarily alter the assessment of affects undertaken in section 11.5 below. Therefore, the baseline conditions are taken in this chapter to also represent the base case (i.e. the future baseline at the time of construction). The mitigation measures proposed in section 11.7 below include for on-going discussion with the relevant consultees, so in the unlikely event that the base case does alter from baseline conditions, this can be taken into account as mitigation measures are agreed and implemented.

11.4.3 Data from the various sources outlined above has been compared and de-conflicted to avoid duplication of assets recorded by more than one source and for ease of reference all assets identified within the study areas have been given a unique reference number and prefix related to asset type. This has been used on the figures and in the gazetteers.

Table 11.9 Heritage Asset Types and References

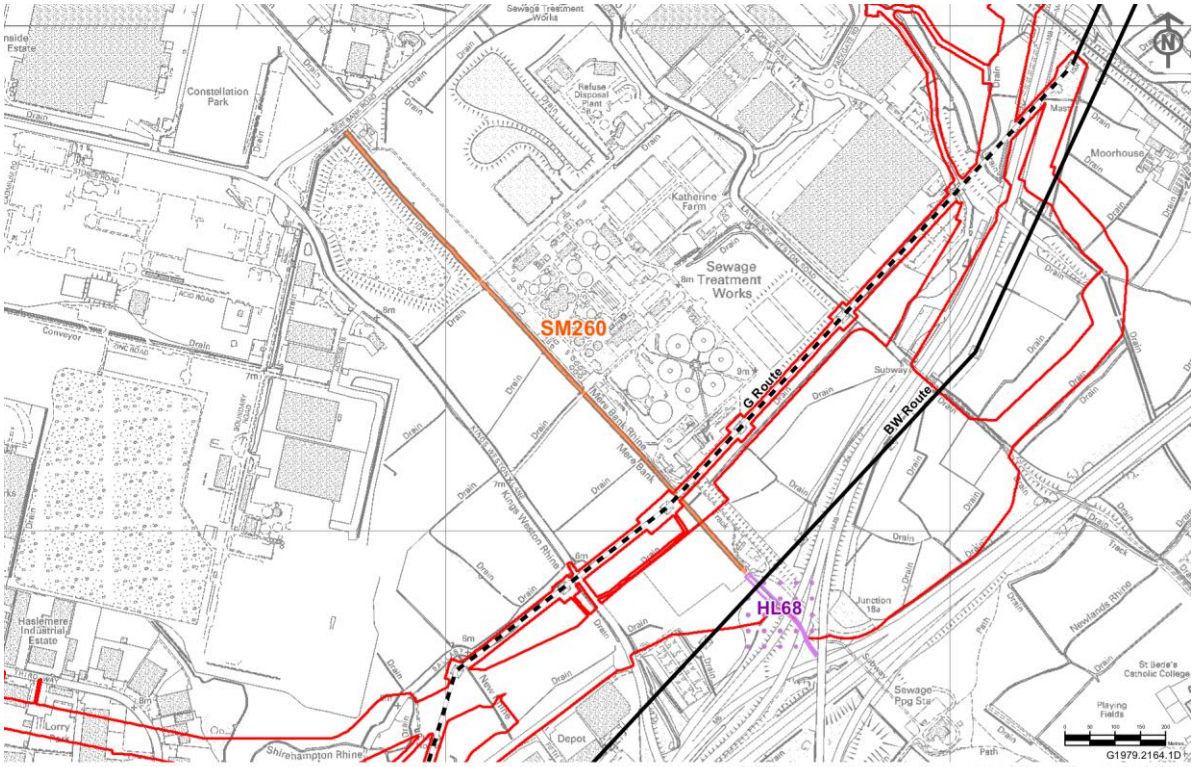
Heritage Asset Type	Reference Prefix
Scheduled Monument	SM
Listed Building	LB
Conservation Area	CA
Registered Park and Garden	RPG
Registered Battlefield	RB
Archaeological Remains	AR
Built Heritage (not Listed)	BH
Historic Landscape Component	HL
Marine Heritage	MH
Palaeo-environmental/Geoarchaeological Deposits	PE

Designated Assets

11.4.4 There are 1499 designated heritage assets within the study areas described above.

11.4.5 There is only one designated heritage asset within the Order Limits; Mere Bank (SM260) (**Inset 11.1**), in Section G at Avonmouth. This is a 3-5m wide earthwork monument with flanking ditches, which runs across Avonmouth. It is believed to date from the 12th century on the basis of very limited investigations.

Inset 11.1: Mere Bank Scheduled Monument



11.4.6 Within 1km of the Order Limits there are 326 designated heritage assets, comprising:

- 11 grade I listed buildings;
- 16 grade II* listed buildings;
- 269 grade II listed buildings;
- two grade II registered parks and gardens;
- 17 scheduled monuments; and
- 11 conservation areas.

Table 11.10 Summary of Designated Heritage Assets Baseline Data by Section

Section	Number of Designated Heritage Assets within 1km of Order Limits					
	LB I	**LBII***	**LBII**	**SM**	**CA**	**RPGII**
A	1	1	24	1	-	-
B	2	2	44	-	-	-
C	1	6	31	6	2	
D	6	6	111	5	6	-
E	1	-	22	2	-	-
F	-	-	12	-	1	-
G	-	1	17	2	2	2
H	-	-	8	1	-	-
Total	11	16	269	17	11	2

11.4.7 A further 413 designated heritage assets are within 1km to 2km of the Order Limits:

- 28 grade I listed buildings;
- 21 grade II* listed buildings;
- 331 grade II listed buildings;
- 24 scheduled monuments;
- four conservation areas;
- four grade II* registered park and gardens; and
- one registered battlefield.

11.4.8 The remaining 760 designated assets comprise grade I and II* listed buildings, grade I registered parks and gardens and scheduled monuments within the study area that extended to 10km for those classes of monument.

11.4.9 These assets are all of high or very high heritage significance. The contribution made by setting to the assets significance is further described in **Volume 5.11.2, Appendix 11B**, for those assets where the Proposed Development may be capable of affecting that contribution.

<u>Non-Designated Heritage Assets</u>

Non-designated Archaeological Remains

11.4.10 253 assets characterised as archaeological remains were recorded within the study area. Of these, 216 were recorded from the National Monuments Record and

Historic Environment Records for Somerset, North Somerset, the City of Bristol and South Gloucestershire; 37 were identified during project research or field surveys. 99 of these assets are within the Order Limits and these have been characterised by archaeological and historical period as follows:

Table 11.11 Summary of Archaeological Remains within the Order Limits by Period

Period	Data Range	Number of Assets
Early Prehistoric	500,000 BC – 2,000 BC	1
Late Prehistoric	2,000 BC – AD 43	4
Early & Late Prehistoric	–	2
Prehistoric & Roman	–	5
Roman	AD 43 – 410	15
Early Medieval	410 – 1066	1
Post-Conquest Medieval	1066 – 1540	11
Medieval – Post-medieval	–	4
Post-medieval	1540 – 1800	6
Industrial	1800 – 1900	7
Post-medieval – Industrial	–	6
Modern	1900 – 2014	4
Post-medieval – Modern	-	1
Undated	–	32

11.4.11 Six assets within the Order Limits are of potentially high heritage significance, and have been treated as such in the assessment. Assets ID AR20, AR23, AR77 and AR175 relate to former medieval settlement sites at Horsey, Crook, Webbington and Stone-edge Batch respectively. Assets ID AR29 and AR289 relate to Roman sites at Crandon Bridge and Max Mills.

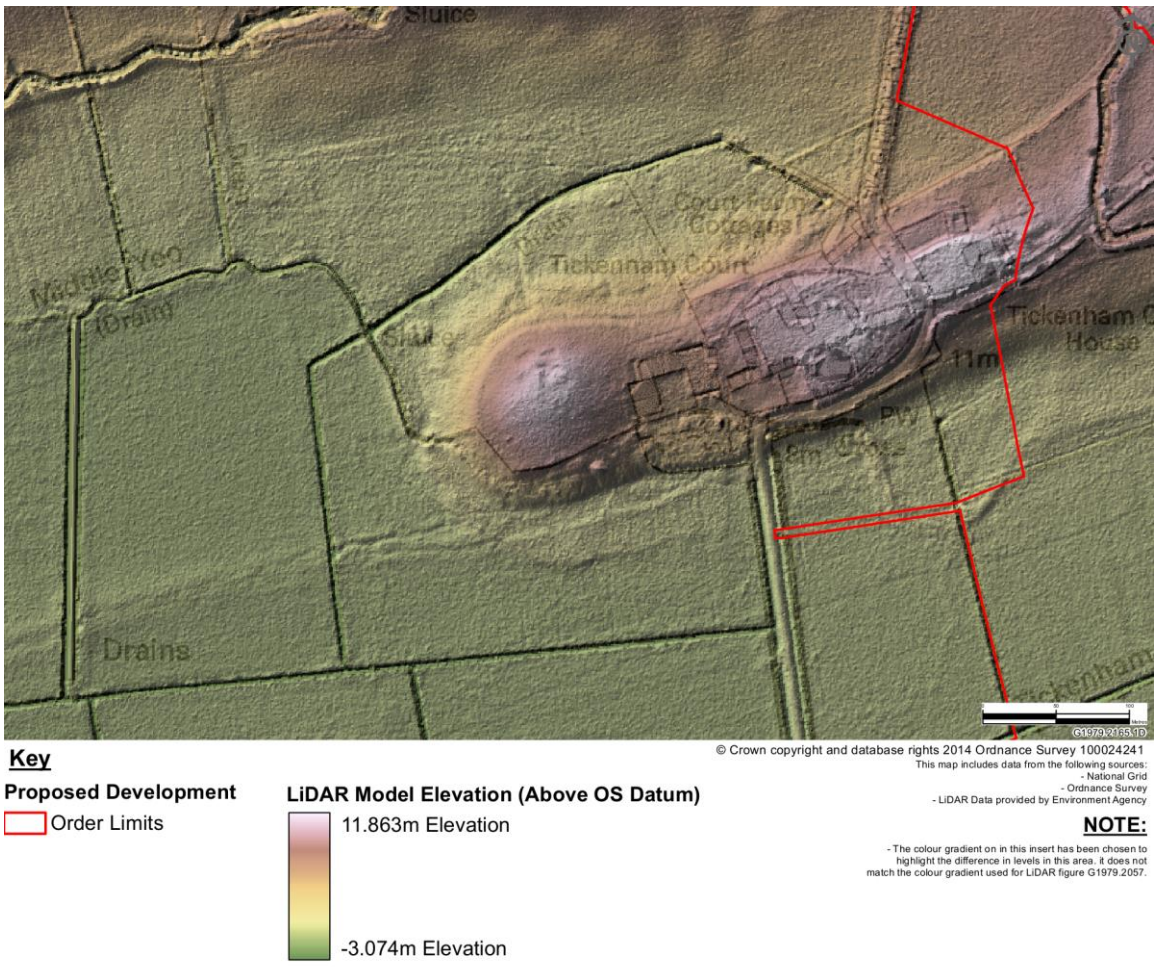
11.4.12 Prehistoric archaeological remains within the Order Limits include the locations of previous isolated finds, broad agricultural remains and settlements. Roman remains within the Order Limits include both small and large settlements, as well as agricultural remains and salt-production sites. The Medieval period is well represented by agricultural remains, and there are also the remains of deserted or shrunken settlements within the Order Limits. Remains from the Post-medieval and Industrial periods within the Order Limits include farmsteads and agricultural sites such as former sheep pens and duck decoys.

Potential for Previously Unknown Archaeological Remains

11.4.13 As yet unknown buried archaeological remains are expected to survive within the area of the Proposed Development. The potential for archaeological remains to be present is high in the upland areas of Puriton Ridge (Section A), the Mendip Hills (Section C), and Tickenham Ridge (Section E) (**Inset 11.2**), and where the upland areas meet the levels. This is because the higher areas would have formed

'islands' in the surrounding historically wet lands, providing areas suitable for domestic, agricultural and ritual uses.

Inset 11.2: Tickenham as Shown in LiDAR Data



11.4.14 The Somerset and North Somerset Levels (Sections B and D, and part of Section A) contain discrete areas where important remains have been found, and have potential for as-yet unknown remains to be present elsewhere, within masking alluvial deposits. In particular, areas where underlying solid geological strata outcrop have high potential to have been utilised in the past.

11.4.15 Like much of Sections B and D, the Avonmouth Levels (Section F and G) are predominately on tidal deposits with interleaving peats. On the southern side of the River Avon (Section F), the Proposed Development includes a stretch of raised ground north of Sheepway, indicating a Pleistocene river terrace that previously has yielded Palaeolithic artefacts. The known archaeological record of Section F is otherwise principally post-medieval in character. The Avonmouth area (Section G) has also produced archaeological remains but is of lower potential than areas to the

south; this is partly due to truncation and, like Section F, reflects the relatively late date of land reclamation. However, Roman and Iron Age settlement is known from Hallen Marsh in the north of Section G, and the presence of Mere Bank indicates that the area was being managed from at least the early medieval period.

11.4.16 At the Hinkley Point C line entries (Section H), prehistoric, Roman and medieval settlements, as well as undated enclosures are recorded. The Order Limits of the Proposed Development cross Wick Moor in an area that is likely to have been waterlogged or a small inlet during some historic and prehistoric periods. As a result, in that area the potential for significant archaeological remains to be present is low, but the geoarchaeological potential is high.

11.4.17 Where the Proposed Development would pass through areas of previous disturbance such as quarrying, industrial works, and some agricultural activities, the potential for previously unknown archaeology to survive is low.

11.4.18 The Proposed Development would cross a landscape of known palaeo-environmental importance. The Somerset, North Somerset and Avon Levels (Sections A, B, D, F and G) contain sequences of peat formation and transgression, including preserved botanical remains that can be used to reconstruct past landscapes. In addition, these regions contain palaeo-landscapes that have yielded well-preserved archaeological remains, distributed according to the buried topography defined by underlying solid geological strata.

Geoarchaeological and Palaeo-environmental Assets

11.4.19 The assessment identified 19 non-designated palaeo-environmental assets. These are primarily palaeochannels, which in some cases are very extensive. Seven were recorded in the National Monuments Record and Historic Environment Records, and 12 were identified during the LiDAR survey. All palaeochannels are recorded as undated, which reflects their nature as elements of ongoing natural processes, rather than man-made events, as well as the degree of current knowledge about specific assets.

Non-designated Built Heritage Assets

11.4.20 There are 81 assets within the study area that have been categorised as built heritage assets. These include historic farm buildings, civic buildings, and domestic buildings. Historic structures in the study area include bridges, milestones, and Second World War pillboxes. Of these, 61 were recorded in the National Monuments Record and Historic Environment Records, and 20 previously unidentified assets were identified during cartographic research and field survey. There are 18 built heritage assets within the Order Limits.

Table 11.12 Summary of Built Heritage Assets within the Order Limits by Period

Period	Data Range	Number of Assets
Post-medieval	1540 – 1800	1
Post-medieval – Industrial	–	5
Industrial	1800 – 1900	1
Industrial/Modern	–	2

Period	Data Range	Number of Assets
Modern	1900 – 2014	1
Post-medieval – Modern	–	8

11.4.21 Non-designated built heritage assets within the Order Limits date to the post-medieval to modern periods and are typically farmhouses and bridges. Non-designated heritage assets of the Industrial period include those structures as well as railway structures and the remains of mining industry. The built heritage assets from the modern period include similar forms of construction to earlier periods.

Non-designated Historic Landscape Assets and Historic Landscape Character

11.4.22 There are 104 non-designated heritage assets within the study area that have been characterised as associated with historic landscape character or historic land use. This category of asset type also includes roads and tracks, railway infrastructure, parklands, open areas, and the remains of field systems dating from all periods since late prehistory. Of these, 47 were recorded in the National Monuments Record and Historic Environment Records, and 26 were identified from the Somerset County Council historic farmstead surveys. A further 31 assets were identified during the LiDAR survey and field surveys. There are 51 historic landscape assets within the Order Limits.

Table 11.13 Summary of Historic Landscape Assets within the Order Limits by Period

Period	Date Range	Number of Assets
Roman	AD 43 – 410	2
Prehistoric/Roman	–	1
Early Medieval/Post-Conquest Medieval	–	2
Post-Conquest Medieval	1066 – 1540	11
Medieval – Post-medieval	–	8
Post-medieval	1540 – 1800	8
Industrial	1800 – 1900	9
Modern	1900 – 2014	2
Post-medieval – Modern	1800 – 1900	3
Undated		5

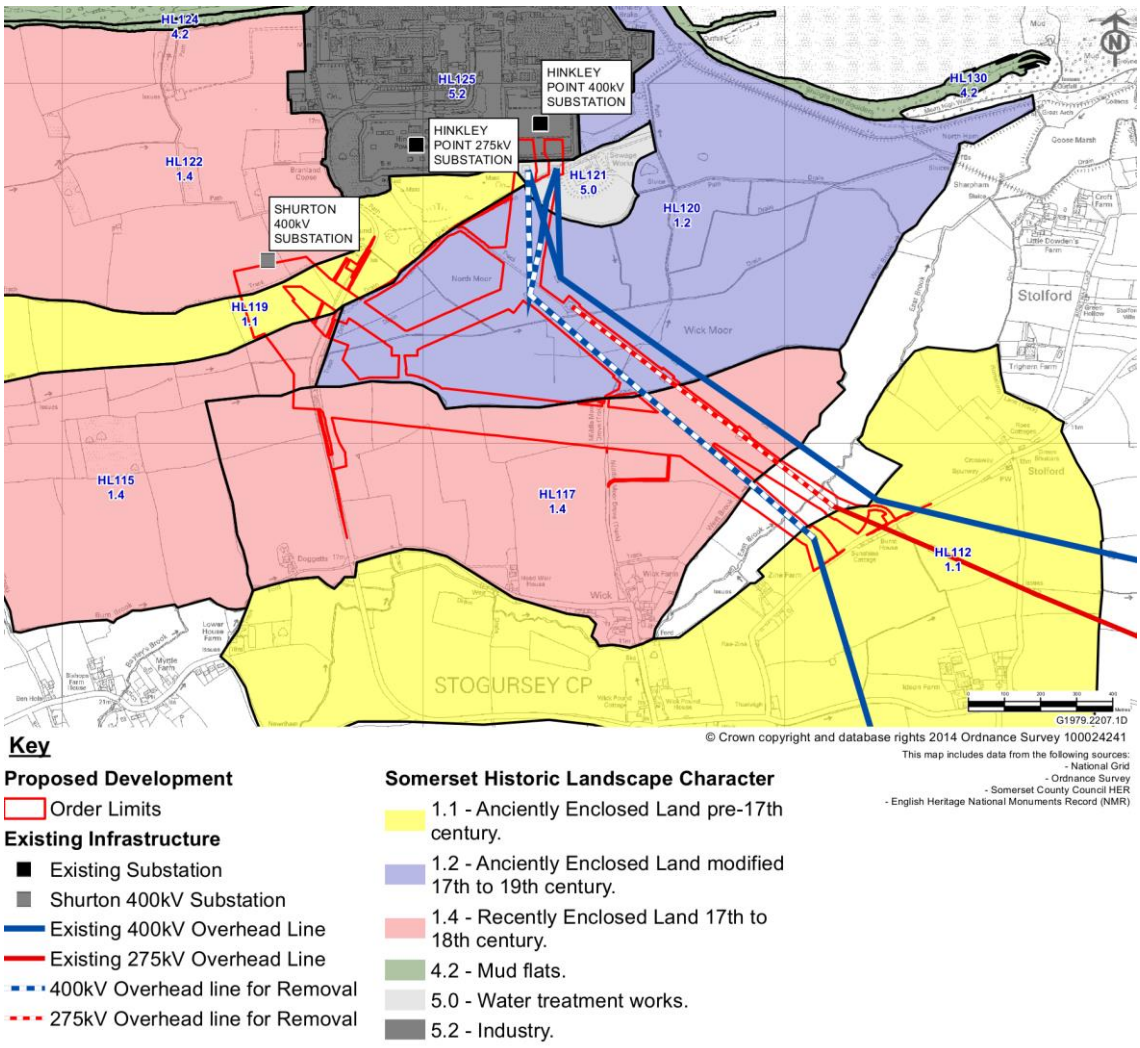
11.4.23 One non-designated historic landscape asset is of potentially high heritage significance, and is treated as such within the assessment. Asset HL63 relates to possibly Iron Age cultivation evident as earthwork remains.

11.4.24 Within the Order Limits, historic landscape assets include various linear constructions such as drains and floodbanks, roads and railways. The earliest examples date from the late prehistoric or Roman periods, and comprise earthworks associated with agricultural activity. Similar remains dating from the medieval and post-medieval periods are also present, as well as extensive drainage features. There are also examples of disused and extant railways, roads and green lanes.

11.4.25 The Proposed Development would cross 298 historic landscape character zones. These zones have been defined by the Historic Landscape Characterisation projects (Ref. 11.12 and Ref. 11.13), and from field survey. The Somerset and North Somerset Levels (Section A on the Puriton Ridge and Sections B and D) are predominately composed of zones of anciently enclosed moorland that was modified during the Post-medieval period, although zones of earlier field systems survive (particularly on the North Somerset Levels), as well as patches of parkland and (largely modern) townscapes. The area around Portishead (Section F) contains large zones of modern industrial and domestic development, but also Post-medieval agricultural land and earlier apportionments along the coastal zone. The historic landscape around Hinkley Point Power Station (Section H) (**Inset 11.3**) includes an industrial zone, mud flats, and zones of anciently enclosed land modified during the Post-medieval period. The Proposed Development Order Limits also include numerous non-designated historic landscape elements such as field boundaries, lanes and hedges.

11.4.26 The Mendip Hills (Section C) are designated as an Area of Outstanding Natural Beauty (AONB). This AONB encompasses a rich and distinctive historic landscape, and the historic landscape of the study area is representative of that wider historic landscape. A gently undulating Carboniferous Limestone plateau is enclosed by the Mendip Hills to the north and Polden Hills to the south. In the study area, this landscape is predominately characterised by late medieval enclosed open fields, with some later alteration. The historic landscape within the study area is generally of moderate heritage significance, and is a representative and reasonably intact element of the wider historic landscape.

Inset 11.3: Example of Historic Landscape Character (Hinkley Line Entries)



Summary of Historic Environment Baseline Conditions

11.4.27 There are 187 non-designated heritage assets and one designated heritage asset within the Order Limits. By asset type and Section of the Proposed Development, these comprise the following:

Table 11.14 Heritage Assets within the Order Limits by Section and Asset Type

Section	Number of Non-designated Heritage Assets within the Order Limits				
	Archaeological Remains (AR)	Built Heritage (BH)	Historic Landscape (HL	Palaeo-environmental (PE)	Total
A	21	1	7	1	30

Section	Number of Non-designated Heritage Assets within the Order Limits				
	Archaeological Remains (AR)	**Built Heritage (BH)**	**Historic Landscape (HL**	**Palaeo-environmental (PE)**	**Total**
B	16	4	12	4	36
C	13	1	7	1	22
D	18	10	11	11	50
E	11	1	5	-	17
F	5	-	1	-	6
G	13	1	7	2	23
H	2	-	1	-	3
	99	18	51	19	187

11.4.28 In terms of heritage significance, the assets described above comprise assets of high to negligible significance. The assets of very high/high significance include one designated heritage asset and seven non-designated heritage assets that are of high importance.

Table 11.15 Heritage Assets within the Order Limits by Heritage Significance

Section	Assets of High/Very High Significance	Assets of Moderate Significance	Assets of Low Significance	Assets of Negligible Significance	Total
A	3	6	20	1	30
B	1	4	25	6	36
C	1	5	14	2	22
D	1	4	43	2	50
E	1	3	11	2	17
F	-	-	5	1	6
G	1	1	19	3	24
H	-	1	1	1	3
Total	8	24	138	18	188

11.4.29 In addition there are a number of designated heritage assets within the wider area that were assessed to determine whether the development would be capable of affecting their setting. These assets are described in **Volume 5.11.2, Appendix 11B**.

11.5 Prediction and Assessment of Significance of the Potential Effects

11.5.1 The predicted effects of the construction, operational and decommissioning phases of the Proposed Development in relation to the historic environment are discussed below. **Tables 11.18 and 11.19** provide a summary of all of the significant effects of all phases and components of the Proposed Development on the historic environment.

11.5.2 In the assessment that follows, harm to a heritage asset's significance resulting from alteration or destruction is described as a physical effect. These effects are direct, adverse, permanent, and typically occur during the construction phase of the Proposed Development.

11.5.3 Where the predicted harm to a heritage asset's significance would result from development within its setting, this is identified below as an 'effect on setting'. These effects can be adverse or beneficial, direct or indirect, temporary or permanent, and would occur during the construction and operation of the Proposed Development. Adverse effects on setting would generally be reversed on decommissioning of the Proposed Development. Beneficial effects are recorded where the removal of existing infrastructure would better reveal the significance of an asset.

11.5.4 Direct effects are effects that arise as a primary consequence of the Proposed Development. Direct effects can result in physical loss of part or all of a heritage asset, or changes to its setting. Indirect effects are effects that occur as a secondary consequence of the construction or operation of the Proposed Development. An example of a direct effect on the setting of a heritage asset would be the construction of a pylon within the setting of that asset. An indirect effect could occur, for example, as a result of temporary increased traffic movement within the setting of a heritage asset, or as a result of offsite planting and enhancement within the setting of a heritage asset.

11.5.5 Temporary effects can be short, medium or long term. Short term effects are those that would typically occur for up to four years, i.e. effects that occur during construction. Medium term effects are those that are expected to last for up to 15 years and include, for example, reinstatement of hedgerows. Long term effects are those that last beyond 15 years such as establishing woodland planting to reinstate to baseline conditions. Although the Proposed Development has an expected lifespan of several decades, effects that occur during the lifespan of the infrastructure are assessed as being permanent. This is because the eventual conditions are not known, so a worst-case is assumed.

11.5.6 The prediction of significant effects on historic environment receptors described below is based on the current design of the connection and takes into account temporary construction activities that can take place within the Order Limits. It has also taken account of the LoD. The significance of effects predicted is not expected

to alter as a result of any variation in the final alignment that could arise from the LoD. However, common to any development of this scale, it is possible that as yet unknown archaeological remains could survive within the Order Limits or that the exact location and extent of some buried archaeological remains is not currently accurately understood. Procedures are proposed in the mitigation section 11.7 below to ensure the appropriate treatment of as yet undiscovered heritage assets with archaeological interest identified within the Order Limits during the construction phase of the Proposed Development.

Construction Effects

11.5.7 Construction phase works associated with ground disturbed by topsoil stripping or excavations for drainage, cable trenches, foundations or pits for horizontal directional drilling (HDD) are likely to result in physical effects on archaeological remains and historic landscape assets. These works include:

- removal of the existing 132kV overhead line;
- construction of new pylon bases and associated crane bases for 400kV and 132kV pylons;
- creation of the underground cable working area;
- construction of substations and CSE compounds;
- temporary access tracks (including 'bellmouth' access points); and
- construction of works compounds and laydown areas.

11.5.8 The construction phase of the Proposed Development will have no physical effects on any designated heritage assets.

11.5.9 The effects described below are direct, permanent and adverse.

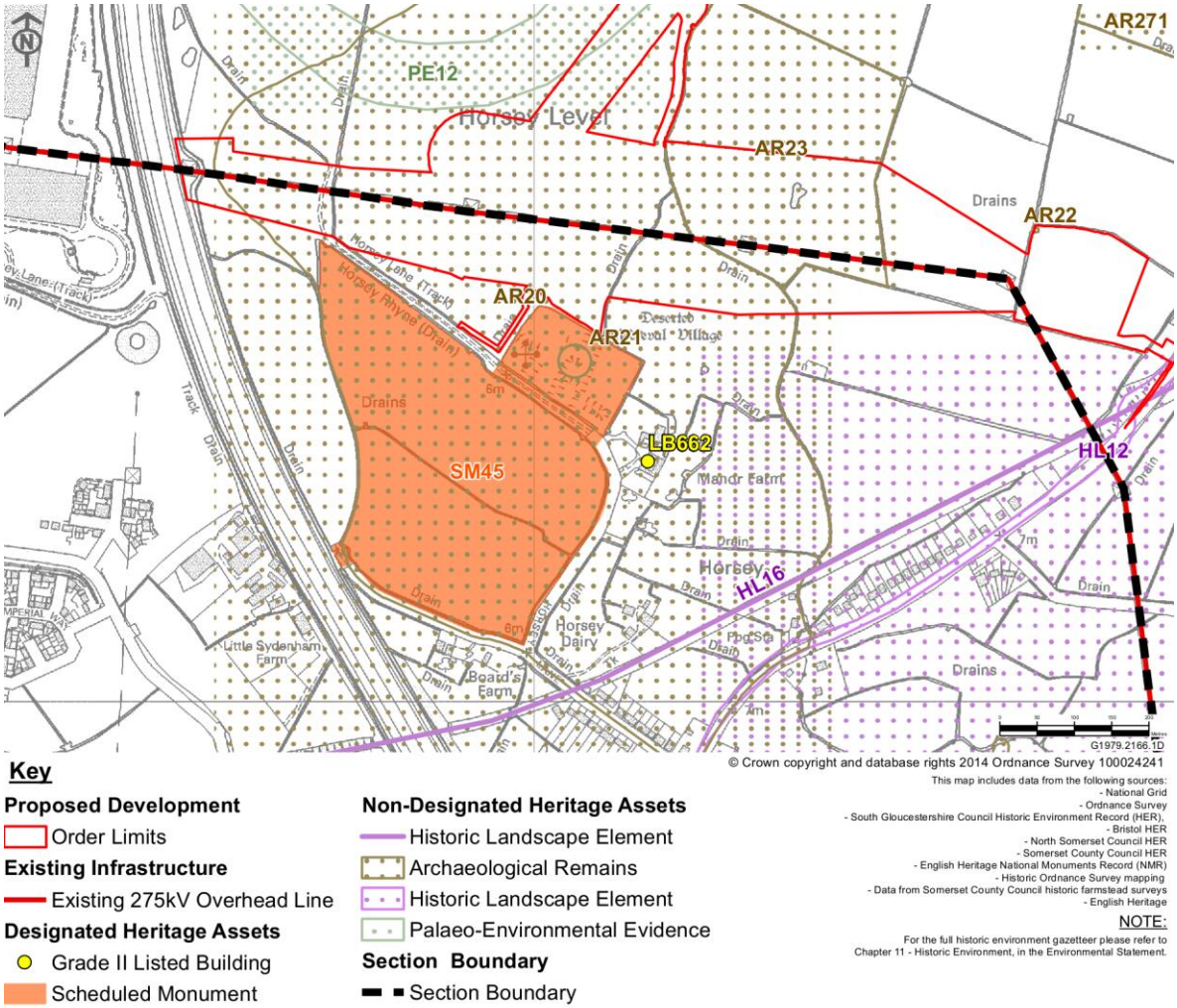
11.5.10 The significance of effect is predicted to be **major adverse** in relation to ten non-designated heritage assets. These comprise four assets of high heritage significance and six of moderate heritage significance. These assets are:

- (AR20) Remains associated with Horsey deserted medieval village;
- (AR23) Crook deserted medieval settlement site;
- (AR288) Geophysical anomalies corresponding to a rectilinear enclosure, trial trench identified two ditches, and both contained Iron Age and Roman pottery;
- (AR289) Multiple Roman buildings near Max Mills. Geophysical survey located a well-defined group of enclosures on both sides of Max Mill Lane. Two trenches identified features and Roman pottery;
- (AR290) Geophysical survey located enclosures, trial trench located three ditches containing Roman pottery;
- (AR291) Geophysical survey identified pair of probable enclosures. A trial trench revealed an undated shallow ditch;
- (AR279) Geophysical survey group of possible pit-like anomalies & one circular anomaly;
- (AR172) Roman buildings, possible settlement site;
- (HL409) Probable barrow: a mound within arable field on the north-facing crest of the ridge; and
- (HL63) Lynchets and terraces interpreted as a pre-medieval field system.

11.5.11 The significance of effect is predicted to be **moderate adverse** in relation to 14 heritage assets. These comprise two assets of high heritage significance, six of moderate and six assets of low heritage significance.

11.5.12 Within Section A, remains associated with Horsey Deserted Medieval Village (asset ID AR20) (**Inset 11.4**) and the contiguous and contemporaneous Crook Deserted Medieval Village (ID AR23) comprise an archaeological site with above-ground earthworks. These assets are of high heritage significance, given their high evidential value. Construction of a CSE compound, a new pylon on the VQ Route, the easement of the 'Bridgwater Tee' underground cable connection and access tracks would all result in truncation of the earthworks and would physically impact buried archaeological remains in the south-western part of this asset. The magnitude of effect during construction would be moderate as there would be direct physical impacts but these would not affect the entire area of the heritage asset. The significance of effect would therefore be **major adverse**.

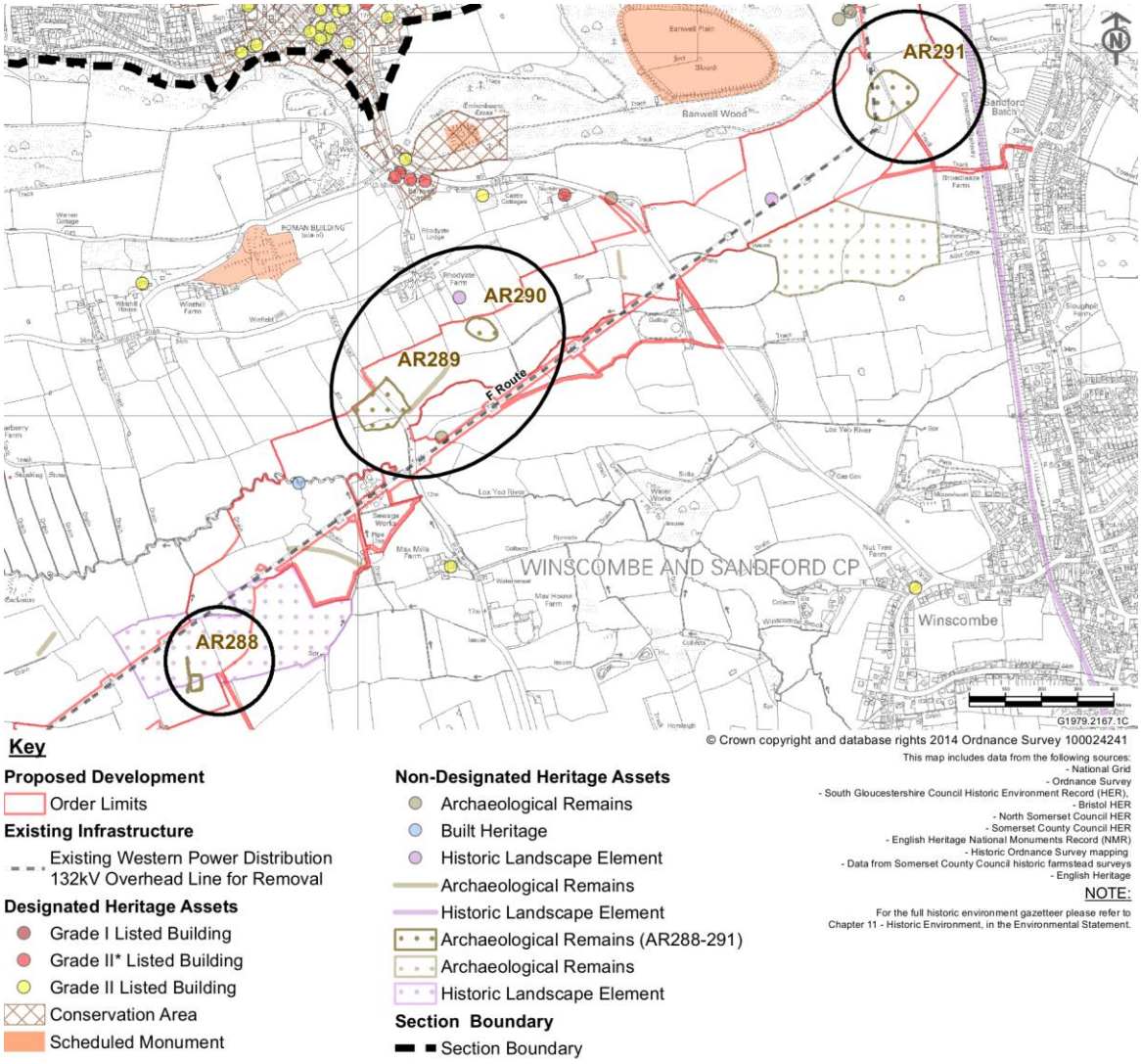
Inset 11.4: Location of Horsey and Crook Medieval Village Sites



11.5.13 Within Section B topsoil removal and excavations for the cable trenches for the 400kV underground cables are predicted to have an adverse effect on Webbington Deserted Medieval Village and a geophysical anomaly identified within the area of the south of Mendip Hills CSE compound. Webbington Deserted Medieval Village (AR77) is of high heritage significance, given its high evidential value but the majority of the asset is recorded as lying outside of the working area. Therefore the predicted magnitude of effect during construction would be low. The significance of effect would therefore be **moderate adverse**.

11.5.14 Within Section C, it is predicted that topsoil removal and excavations for the cable trenches for the 400kV underground cables would have an adverse direct physical impact that is of **major or moderate significance** on nine heritage assets. These assets include Roman remains identified from the HER, geophysical survey and trial trenching near to Max Mills (AR289). This asset is of high heritage significance. The magnitude of effect would be high and the significance of effect is therefore **major adverse**.

Inset 11.5: Assets AR288-291 in Section C

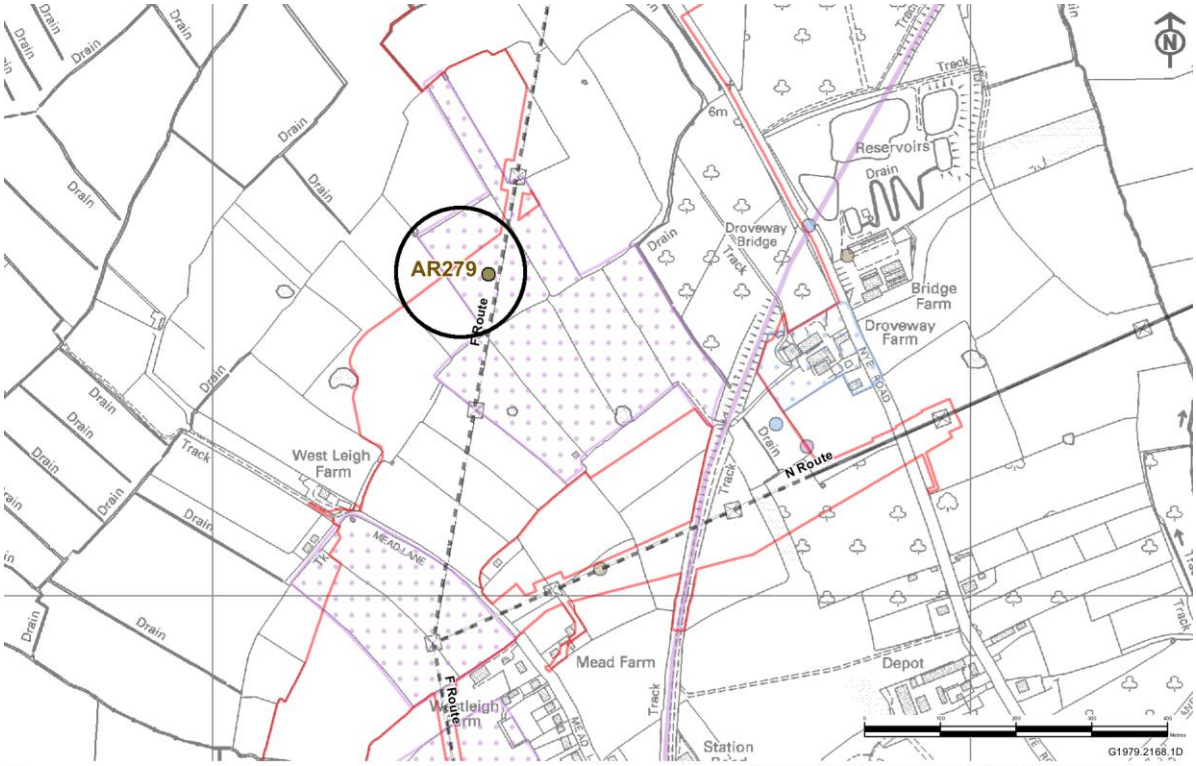


11.5.15 A further three areas of archaeological remains identified from geophysical survey (AR288, 290, 291) are of moderate heritage significance and are within the cable working area and the magnitude of effect would be high. The significance of effects is therefore also **major adverse**.

11.5.16 A **moderate adverse** significance of effect is predicted in Section C in relation to asset ID AR79 (**Inset 11.6**), a possible Iron Age settlement site of moderate heritage significance where a moderate magnitude of effects is predicted. Also in relation to an earthwork enclosure (AR78), a geophysical anomaly that may be the continuation of a section of Roman road (AR91) and the find spot of some Roman pottery (AR98) that are of moderate or low heritage significance and where a high or moderate magnitude of effect is predicted; and finally in relation to Towerhead House Garden (HL51), an asset of moderate heritage significance where a moderate magnitude of effect is predicted because part of the asset is not within the working area, the significance of effect is also predicted to be **moderate adverse**.

11.5.17 Within Section D, topsoil removal and excavations for the 400kV underground cables would have a direct physical impact on the site of a ring ditch identified from geophysical survey (asset ID 279) and the remains of a Roman building (asset ID 172) (**Inset 11.7**). These assets are of moderate heritage significance and a high magnitude of effect is predicted, the significance of effect would therefore be **major adverse**.

Inset 11.6: Asset AR279 in Section D



This map includes data from the following sources:
- National Grid
- Ordnance Survey
- South Gloucestershire Council Historic Environment Record (HER),
- Bristol HER
- North Somerset Council HER
- Somerset County Council HER
- English Heritage National Monuments Record (NMR)
- Historic Ordnance Survey mapping
- Data from Somerset County Council historic farmstead surveys
- English Heritage

NOTE:

For the full historic environment gazetteer please refer to Chapter 11 - Historic Environment, in the Environmental Statement.

Key

Proposed Development

Order Limits

Existing Infrastructure

Existing Western Power Distribution 132kV Overhead Line

Existing Western Power Distribution 132kV Overhead Line for Removal

Non-Designated Heritage Assets

Archaeological Remains (AR279)

Archaeological Remains

Built Heritage

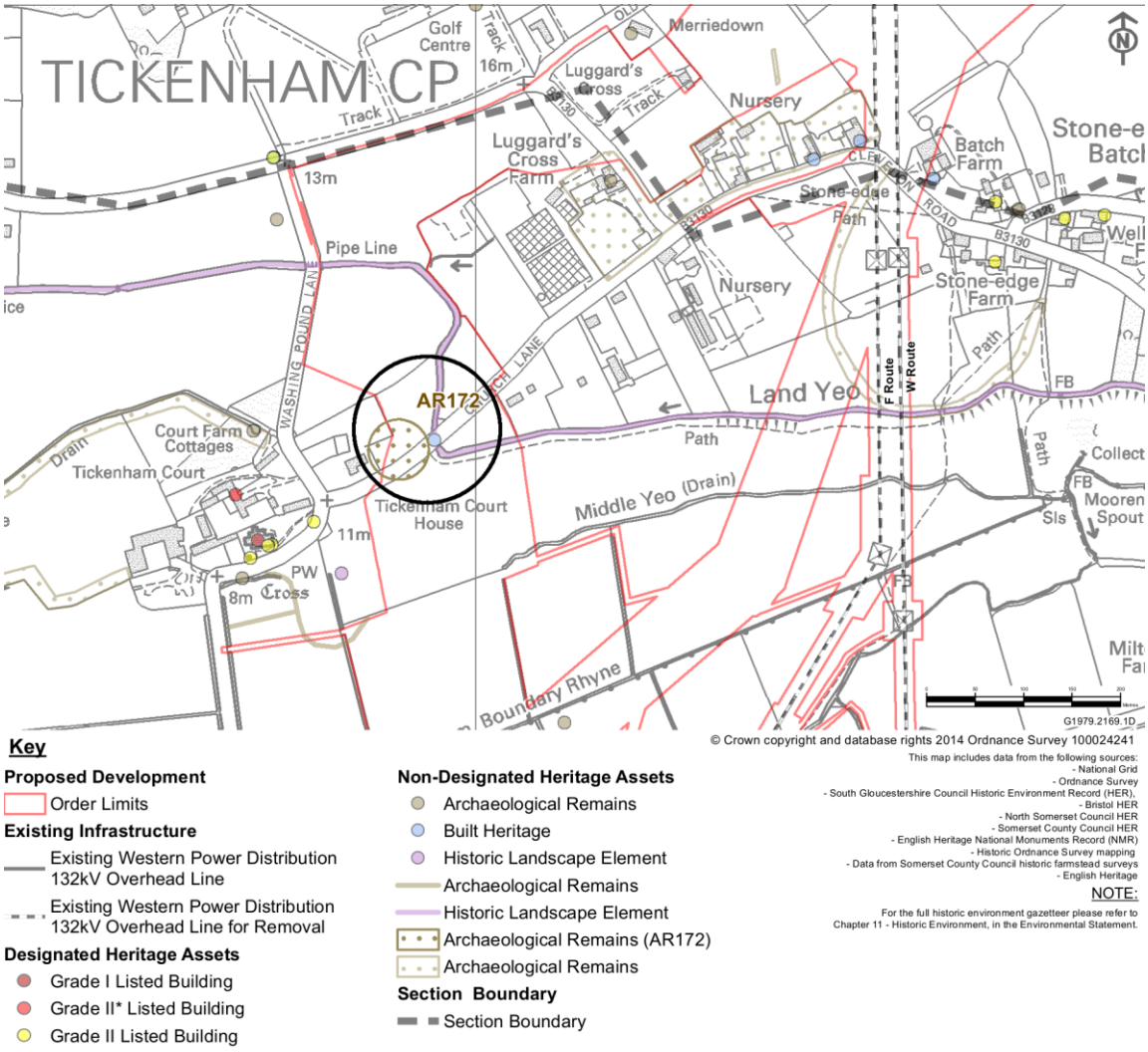
Historic Landscape Element

Historic Landscape Element

Built Heritage

Historic Landscape Element

Inset 11.7: Asset AR172 in Section D



11.5.18 Also, in Section D, a direct physical impact is predicted in relation to the site of Stone-batch Edge medieval village (AR175), an asset of high heritage significance. The predicted magnitude of effect is low (relating to one pylon location only) and the overall significance of effect is therefore **moderate adverse**. A **moderate adverse** significance of effect is also predicted in relation to assets ID AR141, the site of Roman activity including recorded kilns indicating pottery production. This asset is of moderate heritage significance and the predicted magnitude of effect is moderate.

11.5.19 The possible boundary to a former Bishop's Palace (AR101), and a possible building platform (HL416) are assets of low heritage significance where a high magnitude of effect is predicted, and therefore the predicted significance of effect in relation to these assets is **moderate adverse**.

11.5.20 Within Section E, asset ID HL409 is a possible barrow (prehistoric burial mound) identified during the FRS. This asset is of moderate heritage significance and the predicted magnitude of effect is high. The significance of effect is therefore **major adverse**. Asset ID HL63 is the remains of lynchets and terracing that may be associated with Roman or Iron Age agricultural activity. This asset is of high heritage significance and the predicted magnitude of effect is moderate. The significance of effect is therefore **major adverse**.

11.5.21 Also within Section E, asset AR195, another possible Roman or Iron Age field system, is of moderate heritage significance and the predicted magnitude of effect is moderate. The significance of effect is therefore **moderate adverse**. Geophysical survey anomalies within Section E interpreted as probably field boundaries are of low heritage significance but as the predicted magnitude of effect would be high the significance of effect is **moderate adverse**.

11.5.22 In Section G the proposed W Route underground cable crosses the extension of Mere Bank (asset HL68). The magnitude of effect would be greater for an open cut crossing than for a HDD but with either option the magnitude of effect is predicted to be no greater than moderate. This asset is of moderate heritage significance (although associated with a Scheduled Monument the extension is not as well preserved and is not worthy of designation, or of as high evidential value as the Scheduled section of Mere Bank). The significance of effect is therefore **moderate adverse**.

11.5.23 Also within Section G is the site of a former farmstead (asset AR250) of probable post medieval date which is of low heritage significance. The magnitude of effect in relation to this asset would be high and the significance of effect would therefore be **moderate adverse**.

11.5.24 The significance of effect is predicted to be **minor adverse** in relation to a further 40 heritage assets. These comprise one asset of high significance, seven assets of moderate significance, 26 assets of low significance and six assets of negligible significance. One of the predicted **minor adverse** effects relates only to the alternative route (Option B) and would not occur if the preferred route (Option A) was constructed.

11.5.25 Measures are, however, available to mitigate these effects (described below) and the resulting residual effect is, for the majority of these assets, not significant. This is also recorded below, and a summary of the effects, including the mitigation proposed and the resulting residual effect for all of the assets referenced above is provided in **Table 11.19**. Major adverse effects are equivalent to 'substantial harm' (as described in EN-1 paragraph 5.14), although none of the predicted residual effects are major, as described in section 11.8 below. Moderate and minor adverse effects are equivalent to less than substantial harm.

11.5.26 **Negligible adverse** effects are predicted in relation to a further 24 heritage assets. These effects are not significant.

11.5.27 Construction phase works associated with all aspects of the Proposed Development will also have an adverse effect on the settings of a number of heritage assets. These are indirect effects resulting from temporary noise, light and visual disturbance. These effects are temporary, short-term, being time-limited to the period of construction activities and are reversible on completion of the

construction activities. The loss of heritage significance for the majority of the heritage assets affected is predicted to be of **negligible adverse** significance. These effects are not significant. However, some effects on the settings of heritage assets are significant, and would continue throughout the operational phase of the project. These are discussed under operational effects below.

Operational Effects

11.5.28 The operational phase effects of the Proposed Development relate to works affecting the settings of heritage assets. These effects are assessed as being direct and permanent. Effects would result from:

- the permanent removal of 132kV pylons and overhead lines:
- the 400kV pylons and overhead lines;
- the new Sandford Substation and modified substations; and
- the CSE compounds.

11.5.29 Any maintenance of the connection during the operation phase would be within the Order Limits, and the physical effects on heritage assets within this area will have been mitigated during the construction phase of the project. Therefore, no additional physical impacts on archaeological remains or historic landscape assets are predicted during the operational phase of the project.

11.5.30 Where the existing 132kV F and W Route adversely affect the settings of heritage assets, there would be a beneficial effect on these assets as a result of the removal of these routes within sections of the Proposed Development where new above ground infrastructure is not proposed. These effects are direct, permanent and beneficial.

11.5.31 A **minor significance beneficial** effect is predicted in relation to seven heritage assets, comprising:

- RB1 Battle of Sedgemoor (registered battlefield);
- HL10 Chedzoy potential Conservation Area (not designated);
- LB640 (268846) The Beeches (Grade II);
- LB656 (269525) West End Farmhouse (Grade II);
- LB670 (269440) Manor Farmhouse (Grade II);
- LB767 (268816) Crinkle-crankle wall (Grade II); and
- LB826 (33372) Towerhead House (Grade II).

11.5.32 The operational phase of the Proposed Development would also result in loss of significance of heritage assets resulting from the permanent presence of modern infrastructure in the settings of heritage asset. The loss of significance occurs where the part of the setting affected by the Proposed Development makes a positive contribution to understanding and appreciating the significance of the asset. A detailed analysis of the settings of heritage assets is provided in **Volume**

5.11.2, Appendix 11B. These effects are direct, permanent (although these effects would be reversed if the infrastructure was removed) and adverse.

11.5.33 No major significance adverse effects are predicted in relation to any heritage assets, resulting from development within the assets setting.

11.5.34 A **moderate adverse** significance of effects is predicted in relation to three designated heritage assets, comprising:

- SM45 (1020438) Horsey medieval village site;
- LB85 (33759) Grade I listed Church of St. Quiricus & St. Julietta at Tickenham; and
- SM87 (1006226) Pixie's Mound round cairn ('Wick Barrow').

11.5.35 Asset ID SM45, Horsey Deserted Medieval Settlement is an archaeological site with above-ground earthworks. It is not prominent or dominant in the surroundings in which it is experienced and the significance of the asset is derived from the evidential and historical heritage values of the asset, primarily, with some significance derived from the landscape setting that includes the area of the proposed 'Bridgwater Tee'. This component of the Proposed Development is capable of harming the significance of the asset as it increases the amount of modern infrastructure in views of and from the asset, where those views in part make a positive contribution to understanding and experiencing the significance of the asset. The effect relates to the setting of the asset only. The evidential value of the asset will not be harmed. The Scheduled Monument description for Horsey medieval settlement states that the asset is:

"*represented by well-defined earthworks which mark the locations of houses, the site of a chapel and other village features. The site displays evidence of medieval agricultural activity which is associated with the settlement and its relationship with the settlement is an important factor in understanding the site, which will retain evidence of the lives of the inhabitants of the village and their farming practices*".

11.5.36 The village lies within an area of 'recently enclosed land' according to the historic landscape characterisation project for Somerset. This landscape provides time-depth in terms of understanding and appreciating the significance of the asset but does not retain the character of the medieval landscape that was more directly associated with the village; this lack of evidential association lessens the degree to which the surrounding landscape contributes to the evidential value of the asset. However, the contemporaneous settlement site at Crook has an evidential, historical and possibly communal association with Horsey DMV and the Proposed Development would interrupt the visual relationship between these two assets. The setting of Horsey DMV will be changed by the Proposed Development and that change will harm the significance of the asset and ability to understand and appreciate that significance. The asset is of very high heritage significance. The magnitude of change to the significance of the asset will be low adverse, given that the evidential value of the asset will be largely unaltered. The heritage significance of the asset is very high and the significance of effect is therefore **moderate adverse**.

Inset 11.8: Photomontage VPA9 (on completion) Horsey

(Viewpoint VPA9): Anticipated view north from Horsey Lane (south of Receptor A1.H1 Manor Farm) of the 400kV overhead line including the proposed Bridgwater Tee connection and associated CSE compounds on completion (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.3**)

11.5.37 Asset ID LB85, the Grade I listed church of St Quiricus and St Julietta will not be physically affected by the Proposed Development but the setting of this asset makes a positive contribution to its significance and would be altered by the Proposed Development. The primary reason for designation of the Church is its architectural heritage interest and in terms of its heritage values the evidential value of the fabric of the building, contributed to in part also by its landscape position and prominence, its communal value, historical value and aesthetic value, to which again, setting makes a positive contribution. The proposed above ground infrastructure within the setting of the Church would be visible in views of, to and from the Church. These pylons replace existing pylons within the baseline conditions but are closer to the Church and would be more prominent in some views. Therefore the significance of the asset, and ability to appreciate that significance, would be adversely affected by the Proposed Development. However, the church forms part of a group of assets (comprising Tickenham Hall and assets within the church's curtilage) and the Proposed Development would not affect this immediate or intimate setting, from which there are only limited views to the surrounding landscape. Furthermore, the relationship between the church and its landscape setting, including intervisibility with other churches in the vicinity which makes a positive contribution to the significance of Tickenham Church, would be altered but would be discernible. The ability to understand and appreciate the contribution made by setting to the significance of the asset would be altered but the reason for designation of the asset and its heritage significance as a whole would be largely unharmed. The magnitude of effect is low and therefore, given that this asset has very high heritage significance, the significance of affect is **moderate adverse**.

Inset 11.9: Photomontage VPD23 (on completion) Tickenham

(Viewpoint VPD23): Anticipated view from the car park layby on Causeway south of Tickenham Church, looking south across Nailsea Moor towards the F Route and W Route on completion (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.3**)

11.5.38 Pixie's Mound (SM87) is a Scheduled Monument with above ground earthworks but is not particularly prominent in the landscape and is not the most dominant feature in the landscape in which it is experienced, as the baseline conditions include Hinkley Point A and B power stations and a number of existing overhead lines. The reconfiguration of the Hinkley line entries would, however, introduce additional infrastructure into the surroundings in which the asset is experienced. The primary reason for designation of the asset is its evidential value, and the landscape position of the asset does make a positive contribution to that. However, the magnitude of effect that would result from the Hinkley line entries would be low and the significance of effect would be **moderate adverse**.

11.5.39 A **minor adverse** significance of effect is predicted in relation to 43 heritage assets, comprising two grade I listed buildings, three grade II* listed buildings, 27 grade II listed buildings, four Scheduled Monuments and seven non-designated heritage assets (of which six are of high heritage significance, three are of moderate heritage significance). Two of the predicted **minor adverse** effects, including the negligible harm predicted in relation to the setting of Grade I listed St Mary's Church at Portbury, relate only to the preferred route (Option A) and would not occur if the alternative route (Option B) was constructed.

11.5.40 All of the predicted effects arising from development within the settings of heritage assets are equivalent to less than substantial harm (EN-1, paragraph 5.8.14). Minor adverse effects are considerably less than substantial. Also, as these effects result from a negligible magnitude of effect, where the predicted effect is in relation to a listed building, the special architectural or historical interest of the listed building would be preserved. A summary of the effects for all of the assets referenced above is provided in **Table 11.19**.

11.5.41 A further four **negligible adverse** effects are predicted in relation to non-designated heritage assets resulting from development within the assets' settings. However, these effects are not significant and are not harmful to the assets' heritage significance.

Historic Landscape Character

11.5.42 The construction and operation of the Proposed Development will also affect historic landscape character.

11.5.43 A number of hedgerows have been identified that relate to specific heritage assets, coincide with historic parish boundaries and coincide with boundaries depicted on Tithe maps. In addition, a number of extant hedgerows are present that are elements of historic landscape character zones that predate the Enclosure Acts. These hedgerows are listed in **Volume 5.11.2, Appendix 11A**. Not all of these hedgerows will necessarily meet the criteria of the hedgerow regulations as 'important' hedgerows, but these hedgerows hold some heritage significance either through association with a specific heritage asset or as part of an historic field pattern. A number of these hedgerows would be breached during construction and where the breach is not replanted this would have an ongoing effect during the operational phase of the Proposed Development The significance of this effect in terms of historic landscape is **negligible adverse**. This is because the hedgerow breaches, before mitigation, would not be extensive and the historic field pattern (as it is now, rather than that recorded on historic mapping) would remain discernible.

11.5.44 The visual appearance of modern infrastructure within the historic landscape would also have an adverse effect on historic landscape character. This is particularly relevant where that character is preserved through discernible field patterns associated with medieval and post medieval enclosure. The assessment of the effect of the Proposed Development on landscape character is provided in **Volume 5.6.1** (Landscape). In terms of the historic attributes of the landscape, this varies throughout the area affected by the Proposed Development. Some areas retain a greater degree of historic landscape integrity than others. The removal of the existing 132kV overhead lines, without replacement by new infrastructure, within areas where the predominant historic landscape character is that of ancient, medieval or early post medieval enclosure would have a beneficial effect. These historic landscape character zones have moderate to low heritage significance, the magnitude of effect is low and therefore the significance of effect in these areas is **minor beneficial**.

11.5.45 The construction and operation of the proposed 400kV overhead line, substations and CSE compounds within areas where the predominant historic landscape character is that of medieval or early medieval enclosure would have an adverse effect. These historic landscape character zones have moderate to low heritage significance, the magnitude of effect is low and therefore the significance of effect in these areas is **minor adverse**.

11.5.46 Overall, it is therefore predicted that the operation of the Proposed Development would result in some loss of appreciation of the heritage significance of the historic landscape character of the area affected, and some gain where infrastructure is permanently removed. The overall significance of effect on historic landscape character is concluded to be **negligible adverse**. This is not a significant effect.

Indicative Access for Future Maintenance

11.5.1 National Grid would require infrequent access to ensure the Proposed Development could be appropriately maintained. The access would typically be made by foot, 4x4 or tractor and trailer and would not typically require any new temporary accesses; however access to tension pylons may require temporary stone roads or aluminium trackway to be laid. Upon completion of any maintenance works, surfaces would be restored to their condition at the commencement of the works. The indicative accesses for future maintenance are shown at **Volume 5.3.3, Figure 3.5 – 3.6**.

11.5.2 The effect of some of these accesses on heritage assets with archaeological interest could occur during the construction phase and for these accesses measures are proposed to mitigate those effects prior to and during the construction phase works. No additional effects will result from the use or maintenance of these accesses during the operational or decommissioning phases of the Proposed Development, in relation to historic environment receptors.

11.5.3 Some of the identified future maintenance routes may not be created until the operational or decommissioning phases of the Proposed Development. In these cases, the routes are within the Order Limits and will be included in pre-construction and construction phase archaeological mitigation measures to ensure that when used, these accesses do not adversely affect any heritage assets with archaeological interest.

Decommissioning Effects

11.5.4 For the purpose of this assessment, it is assumed that on decommissioning, underground cables would normally be left in the ground; pylon foundations would be removed to a depth of approximately 1m and subsoil and topsoil reinstated. In exceptional circumstances the underground cables and the entire pylon foundations may be removed It is assumed that any areas required for ground works during decommissioning (e.g. removal of equipment) will be within the Order Limits and would therefore have been assessed and mitigated during the construction phase of the project. Therefore no additional direct physical impacts on archaeological remains or historic landscape features are predicted during the decommissioning phase.

11.5.5 The beneficial effects of removal of the existing 132kV F Route and W Route overhead lines discussed above would continue throughout the decommissioning phase.

11.5.6 The predicted adverse effects on heritage assets and historic landscape character described above would be fully reversible on decommissioning, assuming the removal of above ground infrastructure associated with the Proposed Development.

Climate Change Effects

11.5.7 When assessing the heritage significance of assets within the baseline conditions described above, the vulnerability to climate change of the various heritage assets assessed was taken into account, in line with the predicted effects of climate change on the historic environment outlined by English Heritage in their guidance on the Historic Environment and Climate Change. The sensitivity of some

receptors, particularly palaeo-environmental assets, is reflected in the heritage significance attributed.

11.5.8 For the historic environment topic, the effects most likely to be relevant in relation to climate change (taken from the South West Climate Change Group list of potential effects) are:

- the drying of important peatlands as a result of increased drought, endangering ecosystems and public water supplies; and
- increased soil erosion and runoff from agricultural land and any land exposed through construction activities.

11.5.9 The potential effects of the project, in combination with future scenarios relating to climate change, has been taken into account in the assessment of effects and is reflected in the proposed mitigation measures outline below.

11.5.10 For the majority of receptors within the baseline on which the Proposed Development has a predicted effect, the mitigation will reduce the significance of effect to **negligible or neutral** and these measures are resilient to climate change scenarios. That is, after mitigation the evidential value of the asset is retained through a record, rather than the physical remains, and this would not be altered by climate change. Measures proposed in relation to geoarchaeology and palaeo-environmental deposits do not just mitigate the direct impact of the Proposed Development on those deposits, which is negligible taking those deposits as a whole (e.g. the Siger River system covers an area of square kilometres and only a few direct effects within the associated palaeo-channels are predicted). The measures proposed below will also provide a 'point in time' record of the deposits, as they survive and assuming that they could deteriorate as a result of climate change, which could be used in future research, including research into climate change models.

11.5.11 Other predicted effects of the Proposed Development relate to changes within the settings of heritage assets, and not to any physical change to the assets themselves. These predicted affects would not alter (either adversely or positively) as a result of any climate change scenarios anticipated to occur during the lifespan of the Proposed Development.

Construction Programme Sensitivity Analysis

11.5.12 The assessment of the potential effects of the Proposed Development on the historic environment provided above assumes a construction programme as outlined in **Volume 5.3.1, Table 3.3** (i.e. that construction will commence in 2015 and be completed in 2019).

11.5.13 National Grid recognises, however, that this could vary (see **Volume 5.5.1,** section 5.6) and that other programme scenarios could be implemented:

- Programme 1: commence construction March 2016; completion October 2019.

- Programme 2: commence construction October 2018; completion October 2022.
- Programme 3: commence construction March 2016; completion October 2022.

11.5.14 The effects of the Proposed Development on heritage assets are not sensitive to changes in construction date, and would not alter should any of the above programme scenarios be implemented. Relevant to the historic environment topic is the ability to deliver pre-construction mitigation measures outlined in section 11.7 below. This assumes that there would be a period of time between the DCO being granted and the construction programme commencing. In the programme scenarios outlined above, and in the programme outlined at **Volume 5.3.1,** section 3.2, there is sufficient time to ensure that the pre-construction archaeological mitigation can be implemented.

11.6 Inter-Relationship of Potential Effects

11.6.1 The effects on the historic environment, and any works that are carried out to mitigate those effects, could lead to effects on environmental factors considered by other disciplines. Mitigation works for other disciplines may also affect historic environment assets.

11.6.2 Effects on hedgerows discussed above will often be common to the historic environment, biodiversity and landscape topics. Where the design of any new hedgerows and woodland re-planting is required, options have been considered to ensure compatibility with or enhancement to the historic landscape character. Consideration has also been given to any possible effects that ecological and landscape mitigation might have on archaeological remains.

11.6.3 There may be additional physical effects on biodiversity and landscape and views as a result of archaeological mitigation works. There may also be additional temporary, indirect effects on land use and from noise and traffic, resulting from archaeological mitigation works that take place outside the main construction phase, as it is proposed to commence these works prior to construction. However, these works will take place within areas that would be stripped as part of the construction works, so there would be no resulting increase in magnitude of effect in those areas, and the effects on landscape, views and biodiversity are as assessed by those topic specialists at **Volumes 5.6, 5.7 and 5.8**.

11.6.4 The measures proposed in terms of landscape mitigation (on site mitigation described in **Volume 5.7.1**, the OSPES) (see **Volume 5.25**) and in the Biodiversity Mitigation Strategy (**Volume 5.26.3**) have been checked against the historic environment baseline. The effect of the mitigation proposed in relation to biodiversity would be neutral, with the exception that the measures proposed to mitigate effects on hedgerows would also mitigate historic environment effects. The on-site planting has the potential to impact on as yet unknown buried archaeology and where this is the case, it is identified in the Outline WSI (**Volume 5.26.4**) that the measures proposed to mitigate the effects of the Proposed Development should include areas of on-site planting. The OSPES also has the potential to adversely affect archaeological remains. **Volume 5.25.4**, the mitigation schedule, identifies the measure predicted to have an adverse effect on archaeological remains and

advises that these are discussed with the relevant consultees in the event the proposed planting is implemented.

11.6.5 The on-site and off-site planting strategies also have the potential to reduce the predicted adverse effect on some heritage assets, where it has been designed to lessen the visibility of the Proposed Development. Although these measures are not taken into account when determining the residual effect of the Proposed Development on the historic environment (below), it is noted in the Offsite Planting Scheme mitigation schedule and in the table of effects on the settings of heritage assets (**Volume 5.26.4**, the Outline WSI).

11.7 Mitigation

11.7.1 This section describes the proposals for measures designed, in consultation with the relevant statutory and non-statutory consultees, to mitigate, compensate for or offset the predicted adverse impacts of the Proposed Development.

11.7.2 An Outline WSI has been prepared and is provided at **Volume 5.26.4**. This identifies bespoke mitigation specific to an asset where an adverse effect has been predicted, and to the type of effect the Proposed Development would have on that asset. The Outline WSI also provides an overarching approach to the different methods of mitigating the predicted effects of the Proposed Development on heritage assets with archaeological interest. Some methods are proposed to provide additional information about the archaeological interest of a known heritage asset, or as part of an iterative process of identifying and mitigating effects on as yet undiscovered heritage assets with archaeological interest. As such the Outline WSI will be updated and additional more detailed methods statements provided for specific archaeological works, both pre- and during construction.

11.7.3 The measures provided in the Outline WSI will be agreed in writing with the relevant Local Authority and will be secured by DCO Requirement.

11.7.4 The mitigation measures that would be adopted in different locations are also summarised in **Table 11.19**, along with the residual effects after those measures have been implemented.

Mitigation Embedded in the Design

11.7.5 Mitigation of effects on heritage assets through design has been achieved principally through avoiding the sites of known archaeological remains, built heritage and historic landscape features, and their settings.

11.7.6 Consideration has been given during the design process to alteration of the layout and micro-siting of cabling and pylons, as part of an on-going dialogue between designers and historic environment specialists. This has reduced or completely negated certain effects on heritage assets that would otherwise have occurred as a result of earlier design proposals.

11.7.7 The design of temporary works has likewise taken account of historic environment constraints.

11.7.8 The significance of effect on historic hedgerow has been reduced by minimising the size of breaches through important hedgerows, where possible.

Embedded Mitigation of Effects on Heritage Assets

11.7.9 The following adverse effects are predicted in relation to archaeological remains and historic landscape assets:

- ten major adverse effects;
- 14 moderate adverse effects; and
- 40 minor adverse effects.

11.7.10 These are direct, physical impacts which can be mitigated through a proportionate programme of archaeological work. Detail of the archaeological work proposed is provided in the Outline WSI (**Volume 5.26.4**). The proposed works include:

- further field evaluation to provide additional, more detailed archaeological information which would help to establish the precise nature, extent and condition (the heritage significance) of buried archaeology within the development footprint, and allow for asset-specific appropriate mitigation strategies to be determined;
- the identification of archaeological remains through archaeological controlled strip;
- the identification of archaeological remains through archaeological watching brief;
- the mitigation of effects on archaeological remains through archaeological excavation;
- the mitigation of effects on archaeological remains through preservation in situ;
- the mitigation of effects on palaeo-environmental and geo-archaeological evidence that would be disturbed during construction;
- the mitigation of effects on historic landscape assets; and
- a procedure for the assessment, analysis, and public dissemination of the results of the programme of archaeological work.

11.7.11 Throughout the works identified above a dialogue will be maintained with the relevant consultees to ensure that the strategy for each identified heritage asset is proportionate and appropriate. This will include the option of considering preservation in situ for assets with high heritage significance. This would be achieved within the Order Limits through:

- minor amendments to the development footprint (within the LoD, and engineering and other environmental constraints permitting);
- establishing ‘exclusion zones’ within the working area, where archaeological remains are fenced and signed and no below ground works undertaken; and
- establishing alternatives to topsoil stripping to protect archaeological remains in situ.

11.7.12 A record of identified archaeological remains that are not preserved in situ will be secured by excavation and each area of archaeological remains will be excavated in accordance with a site specific or asset specific method statement that takes account of the relevant research aims and is proportionate to the nature and level of the asset's significance and the extent of the loss of significance.

11.7.13 All archaeological work will be subject to an appropriate programme of post excavation assessment, analysis, review and publication.

11.7.14 On completion of the cable works the working width will be reinstated to the pre-construction conditions. Reinstatement measures will not include ripping or other intrusive activities in areas of known buried archaeology, where preservation in situ has been used to mitigate any adverse effects. Any such areas will be identified on reinstatement plans. The reinstatement of archaeological earthworks such as ridge and furrow will follow the pre-construction contours unless otherwise agreed with the relevant statutory consultee.

11.7.15 Where possible, the permanent loss of historic hedgerow will be mitigated through replanting to reduce or completely negate any such effects on the historic landscape.

Enhancement Measures

11.7.16 The predicted effects resulting from development within the setting of the heritage assets cannot be readily mitigated, and no embedded mitigation is proposed in relation to these effects.

11.7.17 The OSPES (**Volume 5.25**) has been developed by the landscape specialist, in relation to effects on landscape and views. However, there is cross reference between this document and the historic environment and the OSPES includes proposals that would address some of the predicted adverse effects on the settings of heritage assets.

11.7.18 The OSPES includes:

- plans illustrating suggested locations and the type of enhancement measures proposed;
- a schedule detailing the justifications and implications of each enhancement proposal and the method and measures required to implement each proposal;
- plant species and specifications to be used; and
- landscape maintenance schedules detailing the maintenance activities to be undertaken during the establishment period.

11.7.19 The implementation of the OSPES is dependent on securing agreements on proposed planting with landowners and others with an interest in land. For this reason it is not taken into account as providing mitigation for any of the predicted

effects of the Proposed Development on the historic environment and is not included in the assessment of residual effects provided below.

11.7.20 National Grid has identified costs for the OSPES and will enter into agreements with the relevant Local Authorities to fund landscape mitigation including costs for Local Authorities to negotiate and implement the proposals. Where it is not possible for a Local Authority to implement works identified in the OSPES, for example because a landowner is not willing to allow planting, National Grid will commit to providing the equivalent funding to Local Authorities to implement similar proposals elsewhere in the local area.

11.8 Residual Effects

11.8.1 The mitigation measures outlined above and detailed in **Volume 5.26.4** (the Outline WSI) in relation to the effects of the Proposed Development on archaeological remains and historic landscape assets have been taken into account in determining the residual effect in relation to the predicted effects on heritage assets.

11.8.2 **Table 11.19** summarises the predicted effects of the Proposed Development on the known heritage assets, the predicted significance of effect prior to mitigation, the proposed mitigation measures (where relevant) and the predicted residual significance of effect. Effects that are of negligible significance (prior to mitigation) are not significant and are not recorded below, but are included in summary form in the Outline WSI (**Volume 5.26.4**).

11.8.3 In relation to the historic environment, two sources of direct effect have been identified: harm to the significance of a heritage asset resulting for a direct, physical impacts and harm to the significance of heritage assets resulting from development within their settings.

Predicted Direct Physical Residual Effects

11.8.4 No direct physical effect is predicted in relation to any designated heritage assets. A significant direct physical effect is predicted in relation to 64 non-designated heritage assets.

11.8.5 Before mitigation the adverse significance of effect is predicted to be;

- major in relation to ten assets;
- moderate in relation to 14 assets; and
- minor in relation to 40 assets.

11.8.6 In many cases there is only a partial loss of significance, and a record will advance understanding of the heritage asset, while much of its significance is retained. Also, it is the case for the majority of the assets where a direct physical effect is predicted that the asset's heritage significance is primarily derived from its evidential value (Ref. 11.6). For these assets, following mitigation the residual effect is **neutral**.

11.8.7 For some assets, while a record would mitigate the loss of evidential value, the magnitude of change is such that other values derived from the physical presence of the asset would be lost. In these cases, while the record would advance

understanding of the significance of the heritage asset, it would not be as valuable as retaining the asset and a **negligible adverse** residual effect is predicted.

11.8.8 There is also predicted to be loss of significance resulting from the ongoing presence of the Proposed Development within the setting of some of these assets. In these cases the residual effect after mitigation reflects this, and is predicted to be **minor adverse**.

11.8.9 After mitigation, the adverse significance of effect is predicted to be:

- minor in relation to 3 assets;
- negligible in relation to 23 assets; and
- neutral in relation to the remaining 38 assets.

11.8.10 Therefore, following mitigation only 3 significant adverse effects are predicted in relation to non-designated heritage assets, which would occur during the construction phase of the development from physical loss of all or part of the asset. Although significant, these effects are less than substantial (Ref. 11.1 and 11.3). The three assets where (after mitigation) an adverse residual effect is predicted are listed in the table below.

Table 11.16 Overall Significance of Physical Residual Effects

Asset ID	Name/Description	Overall Significance of Physical Residual Effect
AR020	Horsey deserted village, Manor Farm	Minor adverse
AR023	Crook deserted village, Crandon	Minor adverse
HL063	Lynchets and terraces interpreted as a pre-medieval field system	Minor adverse

Predicted Residual Effects on the Settings of Heritage Assets.

11.8.11 It is predicted that the construction and operation of the Proposed Development within the settings of heritage assets will result in adverse direct effects to the significance of 46 heritage assets of which 39 are designated heritage assets.

11.8.12 These effects are predicted to be minor in relation to 43 assets (of which 36 are designated and seven are non-designated), and moderate in relation 3 designated heritage assets.

11.8.13 As the implementation of the OSPES is dependent on securing agreements on proposed planting with landowners and others with an interest in land it has not been taken into account in determining the residual effect in relation to the predicted effects on the settings of heritage assets.

11.8.14 Therefore the residual significant effects are predicted to be the same as those listed above. The heritage assets where a significant effect is predicted comprise:

- moderate adverse effects in relation to two SMs (Horsey DMV and Pixies Mound) and one Grade I listed building (the Church of St Quiricus and St Julietta, Tickenham);
- minor adverse effects in relation two Grade I listed buildings (Church of St Saviour at Puxton and Church of St Mary at Portbury – although this would only occur in relation to Option A);
- minor adverse effects in relation to three Grade II* listed buildings (Church of St John the Baptist at Biddisham, Church of St John the Evangelist at Ken and Tickenham Court;
- minor adverse effects in relation to 27 Grade II listed buildings;
- minor adverse effects in relation to four Scheduled Monuments (Brent Knoll, Gout House Farm DMV, Nye Farm Moat and Mere Bank); and
- minor adverse effects in relation to seven non-designated heritage assets.

11.8.15 These effect, while significant, are not substantial (Ref. 11.1, paragraph 5.8.14, and Ref. 11.3) and the key elements of the special architectural or historic interest of these assets are preserved.

11.8.16 In relation to Mere Bank, the effect is to the setting of the asset and does not include any works described by Section 2 (2) of the 1979 Act (Ref. 11.2).

11.8.17 In addition, there would be a **minor beneficial** residual effect in relation to seven designated heritage assets resulting from the decommissioning of development within their settings.

11.9 Cumulative Effects

11.9.1 The cumulative assessment is provided at **Volume 5.17** and includes potential cumulative effects of the Proposed Development together with other major development proposals.

11.9.2 For the historic environment topic the cumulative effects assessment also includes an assessment of the cumulative effect of the Proposed Development on multiple heritage assets and in combination with other modern changes to the historic landscape character. This assessment is made because both the formal and informal consultation responses received in relation to the historic environment request that this is included in the assessment of effects on the historic environment.

11.9.3 English Heritage Guidance on Settings, at paragraph 4.5, provides additional advice on cumulative change. This advises that in order to assess the implication of serious cumulative effects on the settings of heritage assets, Local Planning Authorities should have regard to the impacts of earlier development (the cumulative effect of the Proposed Development together with other major development proposals) and to recognise that the cumulative effect of previous permissions and new development needs assessing to determine whether it has

reached a tipping-point beyond which further development results in substantial harm.

11.9.4 All of the predicted adverse effects on designated heritage assets would result from development within the setting of the asset. None of the predicted effects are equivalent to substantial harm and only three **moderate adverse** effects are predicted. 36 **minor adverse** effects are also predicted in relation to the effect of the Proposed Development on the settings of designated heritage assets.

11.9.5 The design of the Proposed Development has taken account of the potential to affect historic environment receptors and adverse effects have been reduced as far as reasonably possible. The Proposed Development would not therefore have a significant adverse effect in relation to the historic environment, when considering the effect of the scheme either in relation to multiple heritage assets or in combination with other recent changes within the area affected.

11.9.6 Of the developments identified as having the potential for cumulative effects on the historic environment 83 were scoped out and are described in **Volume 5.17.2, Appendix 17D**, 16 were assessed as having potential cumulative effects.

11.9.7 These include one significant potential cumulative effect. This relates to the effect of a possible mixed use residential scheme at Nailsea, in combination with the proposed overhead line, within the setting of listed buildings at Tickenham. The predicted potential residual cumulative effect on the significance of the assets at Tickenham is moderate adverse. This is the same as the predicted effect of the Proposed Development individually.

11.9.8 The other predicted potential residual cumulative effects are of minor or negligible significance or are neutral, following mitigation. None of the predicted cumulative effects are greater than the predicted effect of the Proposed Development, given that the categories of predicted effects provide a range within which the effects are assessed by professional judgement (that is a moderate cumulative may be marginally greater than a moderate non-cumulative, but both are within the moderate spectrum within the matrix).

11.9.9 The exception is the predicted cumulative effect in relation to Pixies Mound which is predicted to be lower than the effect of the Proposed Development, given that the decommissioning of Hinkley Point A and Point B would better reveal the significance of that SM. The predicted potential residual cumulative effect on the significance of this asset is **minor adverse**, whereas the predicted effect of the Proposed Development individually is moderate adverse.

11.10 Summary of Significant Historic Environment Effects

11.10.1 Effects in relation to historic environment assets that are of minor, moderate or major significance are considered in the above assessment to be ‘significant

effects'. Effects of negligible or neutral significance are not. This includes both predicted beneficial and adverse effects arising during the construction and operational phases of the project.

11.10.2 The significant beneficial effects are summarised in **Table 11.18** below. The significant adverse effects, the mitigation proposed to mitigate effects where possible, and the resulting residual effect is summarised in **Table 11.19** below. **Table 11.17** provides a key to **Tables 11.18 and 11.19.**

Table 11.17 Key to Summary of Significance Effects Tables

Abbreviation	Definition	Abbreviation	Definition
LPA	Local Planning Authority (describes the relevant consultee organisation)	SGC	South Gloucestershire Council
		BCC	Bristol City Council
		NSC	North Somerset Council
		SCC	Somerset County Council
Sect.	Section (describes the Section of the Proposed Development in which the asset is located)	A	
		B	
		C	
		D	
		E	
		F	
		G	
		H	
Fig	Figure (describes the figure at Volume xx that the asset can be located on)	e.g. 11.2.2	Figure 11.2, sheet 2
ID	Unique identifier (describes the unique reference used to identify assets on the figures and in the text and gazetteers)	AR	Archaeological remains (non-designated)
		HL	
		BH	
		PE	
		LB	
		SM	
		RPG	
		RB	
		CA	
Status	Identifies the status of the asset in terms of designation	LBI	Grade I Listed Building
		LBII*	Grade II* L:isted Building
		LBII	Grade II Listed Building
		NDHA	Non-designated heritage asset (including archaeological remains, built heritage and historic landscape)
Name/ Description	Provides a brief description of the assets (see gazetteer in appendix 11A, ordered by asset ID, for more detail)	C	Construction Phase
Her Sig	Heritage Significance (see Table 11.5 for descriptions)	O	Operational Phase
P	Project phase	D	Decommissioning Phase
		P	Permanent effect (including effects that are permanent but reversible)
		T (st)	Temporary, short-term effect (typically 2-3 years)
D	Duration	T (mt)	Temporary, medium-term effect (up to 10-15 years)

Abbreviation	Definition	Abbreviation	Definition
		T (lt)	Temporary, long-term effect (several decades)
		P	Direct physical effect to heritage asset
		S	Effect relates to development within the setting of a heritage asset
P/S	Physical/ Setting	P	Direct physical effect to heritage asset
		S	Effect relates to development within the setting of a heritage asset
Proj. C	Project component (see project component below)		
MoE	Magnitude of Effect (see **Table 11.7** for descriptions)		
SoE	Significance of Effect before mitigation (see Table 11.8 for descriptions		

Project Component	Description
400kV OHL	Construction of a 400kV overhead line between a CSE compound at Bridgwater Tee and a CSE compound adjacent the M5; also, construction, presence, and subsequent removal of a 400kV overhead line from a substation at Sandford to Seabank Substation
Bridgwater UGC	Installation of 400kV underground cables between two proposed CSE compounds near Bridgwater to allow the circuits to pass beneath existing overhead lines
Mendip Hills UGC	Installation of 400kV underground cables from a proposed CSE compound south of the Mendip Hills to a proposed substation adjacent to Nye Road, Sandford
South of Mendip Hills CSE	Construction of a 400kV CSE compound south of the Mendip Hills
Bridgwater CSEs	Construction of two 400kV CSE compounds at Horsey Level
HPC Line Entries	Modifications to existing overhead lines in the vicinity of the proposed Hinkley Point C Power Station, their presence during the lifetime of the infrastructure and subsequent removal
Sandford SS	Construction of a substation at Nye Road, Sandford
AT Route connection	Construction of a 132kV overhead line between the proposed Sandford Substation and the existing AT Route
AT Route	Removal of a section of the existing 132kV AT Route overhead line
AT Route connection UGC	Construction of a 132kV underground cable connection between the proposed Sandford Substation and the proposed overhead line connecting to the AT Route
N Route	Removal of a section of the existing 132kV N Route overhead line and replacement with an overhead connection with Sandford Substation
F Route	Removal of an existing 132kV overhead line between Bridgwater Substation and Portishead Substation
G Route	Removal of an existing 132kV overhead line between south of Nailsea and Avonmouth Substation
W Route OHL	Removal of an existing 132kV overhead line between Nailsea and Portishead Substation
W Route UG	Installation of 132kV underground cable between Nailsea and Portishead Substation

Project Component	Description
BW Route OHL	Removal of an existing 132kV overhead line (the BW Route) at Portishead/Avonmouth
BW Route UG	installation of 132kV underground cable at Portishead/Avonmouth
G Route (Avnmth.) OHL	Removal of an existing 132kV overhead line between Avonmouth Substation and 132kV pylon G32
G Route (Avnmth.) UG	installation of 132kV underground cable between Avonmouth Substation and pylon G32
Seabank SS	Extension of the existing Seabank Substation and modifications to accommodate the G, DA and BW Route 132kV underground cables connections
Seabank SS OHL	Removal of three existing 132kV overhead lines (the G, DA and BW Routes) at Seabank Substation
Seabank SS UG	Installation of three underground cables (for the G, DA and BW Routes) at Seabank Substation
Churchill SS	Installation of additional equipment at Churchill Substation to accommodate W and Y Route connections
W Route-Churchill OHL	Construction of a 132kV overhead line connection from the existing W Route to Churchill Substation
Y Route-Churchill UG	Installation of a single circuit 132kV underground cable connection from the existing Y Route to Churchill Substation
Portishead SS	Installation of additional equipment at Portishead Substation to accommodate the new W Route underground cable connection
Avonmouth SS	Installation of additional equipment at Avonmouth Substation to accommodate the new G Route underground cable connection
Access	Construction of temporary access roads and highway works during the construction phase
Compound	Construction of compound sites during the construction phase

Table 11.18 Summary of Predicted Beneficial Effects

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/S	Project C	Magnitude of Effect	Significance of Effect	Mitigation	Residual Effect
SCC	A	11.1.1	RB1	RB	Battle of Sedgemoor	High	C & O	P	S	F Route removal	Negligible	Minor	N/a	Minor beneficial
SCC	A	11.2.1	HL10	CA	Chedzoy potential Conservation Area	Moderate	C & O	P	S	F Route removal	Negligible	Minor	N/a	Minor beneficial
SCC	A	11.1.1	LB640 (268846)	LB II	The Beeches. Mid-19th century house	High	C & O	P	S	F Route removal	Negligible	Minor	N/a	Minor beneficial
SCC	A	11.1.1	LB656 (269525)	LB II	West End Farmhouse	High	C & O	P	S	F Route removal	Negligible	Minor	N/a	Minor beneficial
SCC	A	11.1.2	LB670 (269440)	LB II	Manor Farmhouse	High	C & O	P	S	F Route removal	Negligible	Minor	N/a	Minor beneficial
SCC	C	11.1.7	LB767 (268816)	LB II	Crinkle-crankle wall	High	C & O	P	S	F Route removal	Negligible	Minor	N/a	Minor beneficial
SCC	C	11.1.8	LB826 (33372)	LB II	Towerhead House	High	C & O	P	S	F Route removal	Negligible	Minor	N/a	Minor beneficial

Table 11.19 Summary of Predicted Adverse Effects

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
SCC	A	11.2.01	AR11	NDHA	Cursus	Moderate	C	P	P	F Route (access tracks Pylons 2 – 9)	Negligible	Minor	Watching brief during topsoil strip for access track (if any proposed)	Neutral

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
SCC	A	11.2.02	AR19	NDHA	Roman settlement	Moderate	C	P	P	F Route (access track at Pylon16)	Negligible	Minor	Watching brief during topsoil strip for access track (if any proposed)	Neutral
SCC	A	11.1.02	LB662 (507077)	LB II	Horsey Manor Farm	High	C & O	P	S	400kV OHL; Bridgwater Tee	Negligible	Minor		Minor adverse
SCC	A	11.2.02	AR20	NDHA	Remains associated with Horsey DMV (see also setting effects on SM45)	High	C & O	P	P & S	Bridgwater CSEs & UG; 400kV OHL ('Bridgwater Tee'), landscape mitigation	Moderate	Major	Earthwork survey; Excavate in advance of construction	Minor adverse (Includes effects on setting)
SCC	A	11.2.02	AR23	NDHA	Crook medieval settlement	High	C & O	P	P & S	Bridgwater CSEs & UG; 400kV OHL ('Bridgwater Tee'), landscape mitigation	Moderate	Major	Earthwork survey; Excavate in advance of construction	Minor adverse (Includes effects on setting)
SCC	A	11.2.02	AR28	NDHA	Cropmarks of linear features inc. the River Parrett	Low	C	P	P	400kV OHL (pylon ZGA2); Access	Low	Minor	Watching brief during construction; include provision for palaeo-environmental sampling	Neutral
SCC	A	11.2.02	AR29	NDHA	Crandon Bridge possible location of a Roman port	High	C	P	P	Access track and pylon ZGA3	Low	Minor	Controlled strip of working area (where topsoil stripping is necessary to construction)	Neutral

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
SCC	A	11.2.02	AR38	NDHA	Blacklands' field name indicative of area of industrial activity	Low	C	P	P	400kV OHL (access to and pylon ZGA7)	Low	Minor	Trenched evaluation prior to construction	Neutral
SCC	A	11.2.02	BH6	NDHA	Knowle Hall	Moderate	C & O	P	S	400kV OHL; F Route	Low	Minor		Minor adverse
SCC	A	11.1.02	SM45 (33729)	SM	Horsey Deserted Medieval Village	Very high	C & O	P	S	400kV OHL; Bridgwater Tee	Low	Moderate		Moderate adverse
SCC	A	11.2.03	AR274	NDHA	Geophysical survey detected a distinct enclosure-like feature	Low	C	P	P	400kV OHL (pylon ZGA11)	Moderate	Minor	Excavate in advance of construction	Neutral
SCC	B	11.2.03	AR41	NDHA	Roman salt mounds (site of)	Moderate	C	P	P	400kV OHL PylonLD3 - 5	Low	Minor	Field evaluation prior to construction	Neutral
SCC	B	11.1.04	LB723 (435138)	LB II	Wainbridge Farmhouse	High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
SCC	B	11.1.05	LB741 (435160)	LB II	Vole House	High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
	B	11.2.05	HL34	NDHA	The Pilrow Cut, Mark/Rooks Bridge	Moderate	C & O	P	S	400kV OHL	Low	Minor		Minor adverse
SCC	B	11.1.06	LB758 (268747)	LB II	Manor Farmhouse	High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
SCC	B	11.1.06	LB760 (268748)	LB II	The Old School, Biddisham	High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
SCC	B	11.1.06	LB264 (268744)	LB II*	Church of St. John the Baptist, Biddisham	Very High	C & O	P	S	400kV OHL; F Route; Access	Negligible	Minor		Minor adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
SCC	B	11.2.06	AR75	NDHA	Tarnock settlement, pre-medieval settlement site	Moderate	C	P	P	Access to Rooks Bridge Compound	Low	Minor	Excavate in advance of construction	Negligible adverse
SCC	B	11.2.06	BH19	NDHA	Tarnock Farmhouse	High	C & O	P	S	400kV OHL; F Route; Access	Low	Minor		Minor adverse
SCC	B	11.2.07	AR276	NDHA	Geophysical survey located a curving ditch-like anomaly at the south end of the field	Negligible	C	P	P	Mendip Hills 400kV UGC	High	Minor	Controlled strip of working area	Negligible adverse
SCC	B	11.2.07	AR77	NDHA	Webbington shrunken settlement	High	C	P	P	Mendip Hills 400kV UGC	Low	Moderate	Controlled strip of working area	Negligible adverse
SCC	B		SM96 (1008248)	SM	Brent Knoll	Very High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
NSC	C	11.2.07	AR277	NDHA	Geophysical survey located two weak linear anomalies, possibly recent former boundaries	Negligible	C	P	P	Mendip Hills 400kV UGC	High	Minor	Watching brief during topsoil stripping	Neutral
NSC	C	11.2.07	AR288	NDHA	Geophysical survey located anomalies corresponding to a rectilinear enclosure, trial trench identified two ditches, both contained IA/ Ro pottery	Moderate	C	P	P	Mendip Hills 400kV UGC	High	Major	Excavate in advance of construction	Negligible adverse
NSC	C	11.2.07	AR78	NDHA	Sub-rectangular enclosure (extant as earthwork)	Moderate	C	P	P	Mendip Hills 400kV UGC	Moderate	Moderate	Controlled strip of working area	Negligible adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	C	11.2.07	AR79	NDHA	Geophysical survey located a possible ditch . Trial trenching identified a pit & ditch, both containing IA pottery	Moderate	C	P	P	Mendip Hills 400kV UGC	Moderate	Moderate	Controlled strip of working area	Negligible adverse
NSC	C	11.2.07	AR82	NDHA	Indistinct cropmarks of enclosures & linear features may indicate a prehistoric or Roman settlement site.	Moderate	C	P	P	Mendip Hills 400kV UGC	Negligible	Minor	Watching brief during topsoil stripping (including access tracks)	Neutral
NSC	C	11.2.07	AR85	NDHA	Ditch or holloway west of Max Mills Farm	Low	C	P	P	Mendip Hills 400kV UGC	Negligible	Minor	Watching brief during topsoil stripping	Neutral
NSC	C	11.2.07	HL48	NDHA	Roman road	Low	C	P	P	Mendip Hills 400kV UGC	Moderate	Minor	Watching brief during topsoil stripping	Neutral
NSC	C	11.2.08	AR278	NDHA	Geophysical survey located a possible ditch	Negligible	C	P	P	Mendip Hills 400kV UGC	High	Minor	Watching brief during topsoil stripping	Negligible adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	C	11.2.08	AR289	NDHA	Multiple Roman buildings near Max Mills. Geophysical survey located a well-defined group of enclosures on both sides of Max Mill Lane. Two trenches identified features and Roman pottery	High	C	P	P	Mendip Hills 400kV UGC	High	Major	Excavate in advance of construction	Negligible adverse
NSC	C	11.2.08	AR290	NDHA	Geophysical survey located enclosures, trial trench located three ditches containing Ro pottery	Moderate	C	P	P	Mendip Hills 400kV UGC	High	Major	Excavate in advance of construction	Negligible adverse
NSC	C	11.2.08	AR291	NDHA	Geophysical survey identified pair of probable enclosures. A trial trench revealed an undated shallow ditch	Moderate	C	P	P	Mendip Hills 400kV UGC	High	Major	Excavate in advance of construction	Negligible adverse
NSC	C	11.2.08	AR91	NDHA	Linear feature visible on LiDAR data: possibly a continuation of Roman road	Low	C	P	P	Mendip Hills 400kV UGC	High	Moderate	Excavate in advance of construction	Neutral
NSC	C	11.2.08	AR97	NDHA	Medieval coin scatter, Banwell	Low	C	P	P	Mendip Hills 400kV UGC	Low	Minor	Watching brief during topsoil stripping	Neutral
NSC	C	11.2.08	AR98	NDHA	Roman pottery find spot	Low	C	P	P	Mendip Hills 400kV UGC	High	Moderate	Excavate in advance of construction	Negligible adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	C	11.2.08	AR411	NDHA	A broad ridge within these ploughed fields of similar form to the Roman Road near Webbington.	Low	C	P	P	Mendip Hills 400kV UGC	Low	Minor	Watching brief during topsoil stripping	Neutral
NSC	C	11.2.08	HL50	NDHA	Ridge and Furrow	Low	C	P	P	Mendip Hills 400kV UGC	Low	Minor	Watching brief during topsoil stripping	Neutral
NSC	C	11.2.09	HL51	NDHA	Towerhead House Garden. A small C18th park with ha-ha	Moderate	C	P	P	Mendip Hills 400kV UGC	Moderate	Moderate	Controlled strip of working area	Negligible adverse
NSC	D	11.2.09	AR101	NDHA	Boundary; possibly associated with Bishop's Palace site AR99	Low	C	P	P	F Route; Mendip Hills 400kV UGC;	High	Moderate	Controlled strip of working area	Neutral
NSC	D	11.2.09	AR107	NDHA	Farmstead associated with Nye Farm moat (SM184)	Moderate	C	P	P	access track near pylon LD43	Low	Minor	Watching brief during topsoil strip for access track (if any proposed)	Neutral
NSC	D	11.2.09	AR279	NDHA	Geophysical survey group of possible pit-like anomalies & one circular anomaly	Moderate	C	P	P	Mendip Hills 400kV UGC	High	Major	Excavate in advance of construction	Negligible adverse
NSC	D	11.2.09	HL416	NDHA	Possible building platform identified by FRS	Low	C	P	P	Mendip Hills 400kV UGC	High	Moderate	Controlled strip of working area	Negligible adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	D	11.2.09	HL426	NDHA	Possible ridge and furrow identified by FRS	Low	C	P	P	Mendip Hills 400kV UGC	Moderate	Minor	Watching brief during construction	Negligible adverse
NSC	D	11.2.09	HL427	NDHA	Possible ridge and furrow identified by FRS	Low	C	P	P	Mendip Hills 400kV UGC	Moderate	Minor	Watching brief during construction	Negligible adverse
NSC	D	11.2.09	HL428	NDHA	Possible ridge and furrow identified by FRS	Low	C	P	P	Mendip Hills 400kV UGC	Moderate	Minor	Watching brief during construction	Negligible adverse
NSC	D	11.1.09	SM183 (22839)	SM	Deserted medieval farmstead 420m south of Gout House Farm	Very High	C & O	P	S	AT Route connection; 400kV OHL	Negligible	Minor		Minor adverse
NSC	D	11.1.09	SM184 1011132	SM	Nye Farm moated site	Very High	C & O	P	S	AT Route connection; 400kV OHL; F Route; Access	Negligible	Minor		Minor adverse
NSC	D	11.1.11	LB66 (33318)	LB I	Church Of St. Saviour, Puxton	Very High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
NSC	D	11.2.11	AR127	NDHA	Site of medieval 'Framptons Tenement'	Low	C	P	P	400kV OHL, near pylon LD55	Low	Minor	Watching brief during topsoil stripping	Neutral
NSC	D	11.2.11	HL55	NDHA	The Meer Wall	Low	C	P	P	F Route access	Low	Minor	Watching brief during topsoil strip for access track (if any proposed)	Neutral
NSC	D	11.2.12	AR129/ 130	NDHA	Possible Medieval enclosure	Low	C	P	P	400kV OHL, near pylon LD58	Low	Minor	Watching brief during topsoil stripping	Neutral
NSC	D	11.2.12	AR141	NDHA	Romano-British site; kiln; pottery scatters	Moderate	C	P	P	400kV OHL, near pylon LD65	Moderate	Moderate	Controlled strip of working area	Negligible adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	D	11.2.12	AR292	NDHA	Linear evident on LiDAR	Low	C	P	P	400kV OHL, near pylon LD61	Low	Minor	Watching brief during topsoil stripping	Neutral
NSC	D	11.2.12	HL57	NDHA	Drove Road & field system near	Low	C	P	P	400kV OHL, near pylon LD56	Low	Minor	Watching brief during topsoil stripping	Neutral
NSC	D	11.1.12	LB957 (33831)	LB II	Lampley Farmhouse, North End	High	C & O	P	S	400kV OHL; F Route	Negligible	Minor		Minor adverse
NSC	D	11.1.12	LB961 (33830)	LB II	Hope Farmhouse, North End	High	C & O	P	S	400kV OHL; F Route; Access	Negligible	Minor		Minor adverse
NSC	D	11.1.12	LB969 (33707)	LB II	Manor Farmhouse, Kenn	High	C & O	P	S	400kV OHL; F Route; Access	Low	Minor		Minor adverse
NSC	D	11.1.13	LB330 (33705)	LB II*	Church of St. John the Evangelist, Kenn	Very High	C & O	P	S	400kV OHL; F Route	Negligible	Minor		Minor adverse
NSC	D	11.1.14	LB85	LB I	Church of St Quiricus St Julietta, Tickenham	Very high	C & O	P	S	400kV OHL	Low	Moderate		Moderate adverse
NSC	D	11.1.14	LB1029 (33760)	LB II	Cross base & shaft in churchyard	High	C & O	P	S	400kV OHL; W Route UGC	Negligible	Minor		Minor adverse
NSC	D	11.1.14	LB1031 (33761)	LB II	Herbert monument & railings, churchyard	High	C & O	P	S	400kV OHL; W Route UGC	Negligible	Minor		Minor adverse
NSC	D	11.1.14	LB1032 (33762)	LB II	Monument, churchyard	High	C & O	P	S	400kV OHL; W Route UGC	Negligible	Minor		Minor adverse
NSC	D	11.1.14	LB1033 (33763)	LB II	Stile & mounting steps, churchyard	High	C & O	P	S	400kV OHL; W Route	Negligible	Minor		Minor adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
										UGC				
NSC	D	11.1.14	LB1052 (33778)	LB II	Stone-edge Farmhouse	High	C & O	P	S	400kV OHL;W Route OHL	Low	Minor		Minor adverse
NSC	D	11.1.14	LB1053 (33776)	LB II	Wellhouse Farmhouse	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	D	11.1.14	LB1054 (33777)	LB II	Wellhouse Farmhouse range	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	D	11.1.14	LB350 (33758)	LB II*	Tickenham Court	Very High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
NSC	D	11.2.14	AR171	NDHA	Tickenham Court Deserted Medieval Village	High	C & O	P	S	400kV OHL;	Negligible	Minor		Minor adverse
NSC	D	11.2.14	AR172	NDHA	Roman buildings, possible settlement site	Moderate	C	P	P	W Route UGC	High	Major	Excavate in advance of construction	Negligible adverse
NSC	D	11.2.14	AR175	NDHA	Stone-edge Batch DMV	High	C	P	P	400kV OHL (pylon LD81)	Low	Moderate	Excavate in advance of construction	Negligible adverse
NSC	D	11.2.14	HL61	NDHA	Mill leat to Tickenham Mill.	Low	C	P	P	W Route UGC	Low	Minor	Watching brief during topsoil strip	Neutral
NSC	E	11.1.15	LB1057 (33775)	LB II	Batch Farmhouse	High	C & O	P	S	400kV OHL;W Route OHL	Low	Minor		Minor adverse
NSC	E	11.1.15	LB1070 (33779)	LB II	Tickenham House	High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
NSC	E	11.1.15	LB1075 (33680)	LB II	Coach house & stable at Naish Farmhouse	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	E	11.1.15	LB1076 (33678)	LB II	Statue of King John, Naish House	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	E	11.1.15	LB1077 (33676)	LB II	Little Naish	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	E	11.1.15	LB1079 (33679)	LB II	Gazebo at Naish House	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	E	11.1.15	LB1082 (33677)	LB II	The Lodge	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	D	11.2.14	AR168	NDHA	Former field boundaries at Tickenham	Negligible	C	P	P	W Route UGC	Low	Minor	Watching brief during topsoil strip	Neutral
NSC	E	11.2.15	AR281	NDHA	Geophysical survey located a small number of anomalies suggestive of a ditch or former boundary and isolated pit-like features.	Low	C	P	P	W Route UGC	Low	Minor	Watching brief during topsoil strip	Neutral
NSC	E	11.2.15	AR186	NDHA	4 flint tools south of Lime Breach Wood	Low	C	P	P	W Route UGC;	Low	Minor	Watching brief during topsoil strip	Neutral
NSC	E	11.2.15	AR195 & HL417	NDHA	Possible pre-medieval field system and settlement (FRS, geophysics and trenching)	Moderate	C	P	P	400kV OHL; W Route UGC; pylon C-LD86	Moderate	Moderate	Excavate in advance of construction	Negligible adverse
NSC	E	11.2.15	AR197	NDHA	Medieval settlement site	Moderate	C	P	P	F Route; Access	Low	Minor	Excavate in advance of construction	Neutral
NSC	E	11.2.15	AR200	NDHA	Possible pond	Negligible	C	P	P	W Route UGC	Moderate	Minor	Watching brief during topsoil strip	Neutral

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	E	11.2.15	AR283	NDHA	Geophysics identified linears, possible boundary	Low	C	P	P	W Route UGC	High	Moderate	Watching brief during topsoil strip	Neutral
NSC	E	11.2.15	BH36	NDHA	Stable & dairy Stone-edge Batch	High	C & O	P	S	400kV OHL; F Route; W Route OHL	Low	Minor		Minor adverse
NSC	E	11.2.15	BH40	NDHA	Hale Farm Cottages	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	E	11.2.15	HL409	NDHA	Probable barrow: a mound within arable field on the north-facing crest of the ridge (FRS)	Moderate	C	P	P	W Route UGC	High	Major	controlled strip of working area	Negligible adverse
NSC	E	11.2.15	HL413	NDHA	Stone lined waterhole	Negligible	C	P	P	W Route UGC;	High	Minor	Watching brief during topsoil strip	Neutral
NSC	E	11.2.15	HL63	NDHA	Lynchets and terraces interpreted as a pre-medieval field system	High	C	P	P	W Route UGC ; 400kV OHL, pylon LD90-93 & 95	High	Major	Earthwork survey; controlled strip in advance of construction	Minor adverse
NSC	F	11.1.16	LB1092 (33572)	LB II	Lower Caswell House	High	C & O	P	S	400kV OHL;W Route OHL	Negligible	Minor		Minor adverse
NSC	F	11.2.16	AR204	NDHA	Ridge and Furrow	Low	C	P	P	400kV OHL (pylon P-LD96)	Low	Minor	Watching brief during topsoil strip	Neutral
NSC	F	11.2.16	AR206	NDHA	Possible post medieval deserted farmstead, includes 13 rectangular enclosures	Moderate	C	P	P	W Route UGC; Access	Low	Minor	Excavate in advance of construction	Neutral
NSC	F	11.1.17	LB129 (33560)	LB I	St Mary's Church Portbury	Very High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
NSC	F	11.1.17	LB1122 (33461)	LB II	Court House Farmhouse	High	C & O	P	S	400kV OHL; BW Route OHL; G Route	Negligible	Minor		Minor adverse
BCC	G	11.1.18	LB1191 (379605)	LB II	Royal Hotel & Nos. 7-26 Gloucester Rd	High	C & O	P	S	400kV OHL	Negligible	Minor		Minor adverse
BCC	G	11.2.18	AR239	NDHA	Enclosures containing ridge & furrow	Low	C	P	P	400kV OHL, pylon LD118/119	Low	Minor	Controlled strip of working area	Neutral
BCC	G	11.2.18	AR249	NDHA	Iron Age settlement site	Moderate	C	P	P	400kV OHL pylon LD125/126	Low	Minor	Trenched evaluation prior to construction	Neutral
BCC	G	11.2.18	BH61	NDHA	No.1 Granary/ CWS Wheat Silo, Avonmouth	Moderate	C & O	P	S	400kV OHL	Low	Minor		Minor adverse
BCC	G	11.2.18	HL68	NDHA	Continuation of Mere Bank Scheduled Monument SM260	Moderate	C	P	P	W Route UGC	Moderate	Moderate	Excavate in advance of construction	Negligible adverse
BCC	G	11.2.18	HL70	NDHA	Ridge and Furrow (possible includes wrongly located AR244)	Low	C	P	P	400kV OHL (pylon LD122)	Low	Minor	Watching brief during topsoil strip	Neutral
BCC	G	11.1.18	SM260 (27988)	SM	Mere Bank	Very High	C & O	P	S	400kV OHL; BW Route; G Route (Avnmth.) OHL; G Route (Avnmth.)	Negligible	Minor		Minor adverse

LPA	Sect.	Fig.	ID	Status	Name / Description	Her Sig	Phase	D	P/ S	Project C	Mag of E	Sig of E	Mitigation	Residual Effect
BCC	G	11.2.19	AR250	NDHA	Former farm site (extent unknown)	Low	C	P	P	400kV OHL pylon LD126	High	Moderate	Trenched evaluation prior to construction	Neutral
BCC	G	11.2.19	AR256	NDHA	Former farm site (extent unknown)	Low	C	P	P	400kV OHL pylon LD129	Moderate	Minor	Trenched evaluation prior to construction	Neutral
SG	G	11.2.19	AR257	NDHA	Former farm site (extent unknown)	Low	C	P	P	Adjacent to 400kV OHL pylon LD130	Low	Minor	Trenched evaluation prior to construction	Neutral
SCC	H	11.1.20	LB700 (265243)	LB II	Wick Pound House	High	C & O	P	S	HPC Line Entries	Negligible	Minor		Minor adverse
SCC	H	11.1.20	LB701 (1175753	LB II	Zine Farmhouse, Wick	High	C & O	P	S	HPC Line Entries	Negligible	Minor		Minor adverse
SCC	H	11.1.20	SM87 (1006226	SM	Round Cairn known as 'Pixie's Mound' (locally, Wick Barrow)	Very high	C & O	P	S	HPC Line Entries	Low	Moderate		Moderate adverse

11.11 Conclusions

11.11.1 The likely residual effects of the Proposed Development on the historic environment are summarised below.

Construction Effects

11.11.2 Direct physical effects are predicted in relation to 64 non-designated heritage assets. Measures are proposed to mitigate these effects prior to and during construction. On completion of the proposed mitigation, of these predicted direct physical adverse effects, 38 would be reduced to **neutral**, 23 to **negligible** and only three adverse effects of **minor significance** are predicted. Effects of minor significance constitute less than substantial harm in terms of paragraphs 5.8.14 and 5.18.15 of EN-1.

Operational Effects

11.11.3 Adverse effects are predicted in relation to development within the settings of 39 designated and seven non-designated heritage assets. Measures are not proposed to mitigate these effects and the OSPES has not been taken into account in predicting the residual effect with regard to the settings of heritage assets. Therefore, the residual effect during the operational phase of the Proposed Development comprises three **moderate adverse** effects relating to the settings of one grade I listed building (Tickenham Church) and two Scheduled Monuments (Horsey medieval village and Pixie's Mound). These effects are not equivalent to substantial harm. There are also 43 **minor adverse** residual effects, also relating to the settings of heritage assets. These effects are also less than substantial, and in relation to all of the predicted adverse effects that relate to the settings of listed buildings, the special architectural or historic interest is preserved.

Decommissioning Effects

11.11.4 Any areas required for ground works during decommissioning (e.g. removal of equipment) will be within the Order Limits and would therefore have been assessed and mitigated during the construction phase of the project. Therefore no residual effects on archaeological remains or historic landscape assets are predicted during the decommissioning phase.

11.11.5 The beneficial effects of removal of the existing 132kV F Route and W Route overhead lines on seven designated heritage assets would continue throughout the decommissioning phase.

11.11.6 The predicted adverse effects on 39 designated heritage assets and 7 non-designated heritage assets would be fully reversible on decommissioning, assuming the removal of above ground infrastructure associated with the Proposed Development.

11.1 Department for Energy and Climate Change (DECC), 2011. National Policy Statement for Energy (EN-1).

11.2 Ancient Monuments and Archaeological Areas Act 1979

11.3 National Planning Practice Guidance: http://planningguidance.planningportal.gov.uk/blog/guidance/conserving-and-enhancing-the-historic-environment/

11.4 Somerset County Council (SCC), 2011. Heritage Service Archaeological Handbook.

11.5 Highways Agency, 2007. Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 2, HA 208/07: Cultural Heritage.

11.6 English Heritage, 2008. Conservation Principals; Policy and Guidance for the Sustainable Management of the Historic Environment.

11.7 English Heritage, 2011. The Setting of Heritage Assets.

11.8 Department for Communities and Local Government, 2010. PPS5 Planning for the Historic Environment Historic Environment Practice Guide

11.9 English Heritage, 2008. Climate Change and the Historic Environment

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11.11 Department for Communities and Local Government, 2012. National Planning Policy Framework (NPPF), Annex 2: Glossary.

11.12 Aldred, A., 2001. Somerset and Exmoor National Park Historic Landscape Characterisation project, 1999-2000

11.13 Chapman, M., 1998. Avon Historic Landscape Characterisation, 1995-8