



SUNNICA ENERGY FARM

Preliminary Environmental Information Report

Chapter 7: Cultural Heritage

Sunnica Ltd

AUGUST 2020



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7 Cultural Heritage

7.1 Introduction

7.1.1 This chapter presents the findings of a preliminary assessment of temporary and permanent, and short- and long-term impacts on cultural heritage during construction, operation and decommissioning of the Scheme. The chapter considers potential impacts on the following:

- Designated heritage assets, including scheduled monuments, listed buildings, registered parks and gardens and conservation areas; and
- Non-designated heritage assets, including archaeological remains, historic buildings and the historic landscape.

7.1.2 Cultural heritage comprises all aspects of the environment resulting from the interaction and relationships between people and places through time. The above aspects are referred to as heritage assets, i.e. buildings, monuments, sites, places, areas or landscapes identified as having a degree of significance due to their heritage interest that merit consideration in planning decisions. Cultural heritage influences how people relate to places and cultures and can provide a sense of place and stability to a community.

7.1.3 This chapter aims to:

- Detail the requirements of key legislative and policy requirements and describe how the Scheme will consider them;
- Explain how information on the existing and future environment has been collected (through desk-based studies, survey work and stakeholder consultation);
- Describe the understanding of the existing and future baseline environment, based on the baseline information;
- Explain any further information to be obtained through further consultation, desk-based studies, or surveys;
- Describe the potential effects of the Scheme on cultural heritage; and
- Describe potential mitigation measures, if required.

7.1.4 This chapter is supported by the following figures in Volume 3:

- Figure 7-1 (a to h): Non-designated Heritage Assets within the Scheme.
- Figure 7-2 (a to c): Designated Heritage Assets Sunnica East.

7.2 Legislation and Planning Policy

7.2.1 Legislation identifies the requirement for the Secretary of State to have regard to the desirability of preserving listed buildings, Scheduled Monuments and the character of conservation areas. National planning policy identifies the requirement for consideration of the conservation of the historic environment. Conservation is an active process of maintenance and managing change. Where changes are proposed, the National Policy

Statements and the National Planning Policy Framework (NPPF) (Ref. 7-11) sets out a clear framework for both plan-making and decision-taking to ensure that heritage assets are conserved, and where appropriate enhanced, in a manner which is consistent with their significance and thereby achieving sustainable development.

7.2.2 Local planning policies identify the need to protect, conserve, and seek opportunities to enhance local heritage assets and their setting. New development should respect, enhance, and reinforce where appropriate the local character and distinctiveness of the area in which it would be situated. Where impacts cannot be avoided, a programme of conservation appropriate to a heritage asset's significance should be undertaken.

7.2.3 Legislation, planning policy and guidance relating to cultural heritage and pertinent to the Scheme is outlined below.

Legislation

- Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref. 7-1);
- Infrastructure Planning (Decisions) Regulations 2010 (Ref. 7-2);
- Planning Act 2008 (Ref. 7-3);
- Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref. 7-4) (excluding normal planning procedures, which are disapplied by the DCO, which if granted, would encompass all of the normal consents); and
- Ancient Monuments and Archaeological Areas Act 1979 (Ref. 7-5) (amended by the National Heritage Act 1983 (Ref. 7-6) and 2002 (Ref. 7-7)) (excluding normal planning procedures, which are disapplied by the DCO, which if granted, would encompass all of the normal consents).

National Planning Policy

- National Policy Statements (NPS) EN-1 (Ref. 7-8) with particular reference to Section 5.8 in relation to the significance, impact and recording of the historic environment;
- NPS EN-5 (Ref. 7-10) with particular reference to paragraph 2.8.9 in relation to the archaeological consequences of electricity line installation and considering undergrounding; and
- National Planning Policy Framework (NPPF) (Ref. 7-11) with particular reference to Section 16: Conserving and Enhancing the Historic Environment.

National Guidance

- Planning Practice Guidance, Conserving and enhancing the historic environment (Ref. 7-12);
- Historic Environment Good Practice Advice in Planning Note 2. Managing Significance in Decision Taking in the Historic Environment. Historic England (Ref. 7-13);

- Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets. Historic England (2nd edition, 2017) (Ref. 7-14); and
- Historic England Advice Note 12 Statements of Heritage Significance: Analysing Significance in Heritage Assets (2019) (Ref 7-21).
- Chartered Institute for Archaeologists, Code of Conduct and Standards and Guidance for Historic Environment Desk-based Assessment (Ref. 7-19).

Local Planning Policy

- East Cambridgeshire District Council Local Plan Adopted April 2015 (Ref. 7-15), with particular reference to:
 - Policy ENV11: Conservation Areas;
 - Policy ENV 12: Listed Buildings;
 - Policy ENV13: Local Register of Buildings and Structures;
 - Policy ENV14: Sites of archaeological interest;
 - Policy ENV15: Historic parks and gardens; and
- East Cambridgeshire District Council Supplementary Planning Documents (SPD) Renewable Energy Development (Commercial Scale) October 2014 (Ref. 7-16), with particular reference to Section 4: Heritage Assets;
- Forest Heath District Council Core Strategy Adopted 2010 (Ref. 7-17), with particular reference to Policy CS3 in relation to Landscape Character and the Historic Environment; and
- Forest Heath and St Edmundsbury Local Plan: Joint Development Management Policies Document (last updated February 2015) (Ref. 7-18), with particular reference to:
 - Policy DM15: Listed Buildings;
 - Policy DM16: Local Heritage Assets and Buildings Protected by an Article 4 Direction;
 - Policy DM17: Conservation Areas;
 - Policy DM19: Development Affecting Parks and Gardens of Special Historic or Design Interest;
 - Policy DM20: Archaeology; and
 - Policy DM21: Enabling Development.
- Fordham Neighbourhood Plan (made December 2018) with reference to policy 7.

7.3 Assessment Assumptions and Limitations

- 7.3.1 This chapter forms a preliminary assessment which has been based on available information at the time of preparing the PEI Report, and represents a realistic worst case and precautionary approach based on the Scheme parameters as outlined in the Parameter Plans presented in Figure 3-1 and 3-2 and the maximum likely extents of land take required for its

construction and operation shown on those plans. The assessment will be developed and refined following the statutory consultation and as additional information becomes available, including visualisations and the results of trial trenching data, with a final assessment presented within the ES.

- 7.3.2 It is assumed that data provided by third parties is accurate at the time of reporting.
- 7.3.3 The information presented in this preliminary chapter is based on information available at the time of writing the report and based on a developing design for the Scheme set out in the Parameter Plans at Figures 3-1 and 3-2 and the maximum likely extents of land take required for its construction and operation shown by the proposed Scheme boundary on those plans. The assessment takes into account embedded mitigation from the design of the Scheme to minimise effects on heritage assets.
- 7.3.4 The baseline is drawn from historic environment desk-based assessments produced for the Scheme in 2018 and updated in 2019 (***PEI Report Volume 2: Appendix 7A***). At the time of writing these assessments, Historic Landscape Characterisation (HLC) data was not available from the Cambridgeshire Historic Environment Record (HER) and as such an assessment of this has not been included within this document. A detailed assessment of the historic landscape will be undertaken upon receipt of updated HLC data (where available), along with the geophysical survey results (Ref. 7-20) and transcription of aerial photography and LiDAR data. This has been agreed with the planning archaeologists for Suffolk County Council (SCC) and Cambridgeshire County Council (CCC). This will be included within the Environmental Statement (ES) as part of the DCO application. This document includes a summary of the Suffolk Historic Landscape Characterisation which has been used to inform an initial view on likely effects.
- 7.3.5 Archaeological evaluation in the form of geophysical survey has been undertaken (Ref. 7-20), and the preparation for a subsequent programme of trial trenching is on-going at the time of writing. The results of the geophysical survey have been incorporated into this assessment and the results of the trial trenching works will be incorporated into the ES. In the event that access for trial trenching surveys is not possible in selected areas, the assessment of archaeological potential will be based on the available data and professional judgement.
- 7.3.6 The findings of the preliminary assessment may be subject to change as the design of the Scheme is developed and refined through the EIA and consultation processes, and as further research and investigative surveys are undertaken to fully understand its potential effects.

7.4 Assessment Methodology

Study Area

- 7.4.1 The study area for this assessment extends predominantly to 1km from the boundary of the Scheme (See Figure 7-1). Designated heritage assets of the highest significance (as defined in the NPS and NPPF, namely Scheduled Monuments (SMs), Grade I, Grade II* listed buildings or Registered Parks and Gardens) are also considered outside of the 1km

study area, within an area up to 5km beyond the Scheme boundary. Conservation Areas are excluded from this group, taking into consideration their relative significance, the character of the asset in this area and the landscape topography. Highly graded assets within conservation areas have been individually considered. Where SMs comprise below ground features, or features where the setting is not considered to contribute to the significance of the asset, these have also been excluded. Assets within this area are only discussed where the wider landscape forms a key contributing factor in their heritage significance, in accordance with Historic England guidance, and where this has the potential to be affected by the Scheme. Cross-reference has been made to the Zone of Theoretical Visibility (ZTV) to highlight any potential intervisibility between the Scheme and the assets; however, this assessment also takes into consideration the fact that setting goes beyond visual relationships. This will ensure that the assessment is proportionate, in accordance with the requirements of the NPPF (Ref. 7-11). A number of viewpoints will be prepared as part of the Landscape and Visual Impact Assessment for the Environmental Statement. The conclusions outlined in this assessment will be validated for these viewpoints. Locations of proposed viewpoints are shown on Figure 10-11 and agreed with relevant consultees.

- 7.4.2 Assets with grouped significance are considered together. This includes historic buildings (designated and non-designated) located within conservation areas where they have been assessed for the contribution that they make to the historic and architectural interest of that area. Those assets which have significance that transcends the wider grouping have been discussed separately.
- 7.4.3 The purpose of the study area is for data capture, encompassing heritage assets, both designated and non-designated, including archaeological sites and monuments, historic buildings, conservation areas and registered parks and gardens, together with the relevant historic landscape characterisation. All of the captured data has been reviewed (***PEI Report Volume 2: Appendix 7A***), and those assets potentially affected by the Scheme have been taken forward into this preliminary impact assessment.

Sources of Information

Desktop Research

- 7.4.4 Sources of information consulted include:
- National Heritage List for England (NHLE);
 - Cambridgeshire Historic Environment Record (HER);
 - Suffolk County Council Historic Environmental Record (HER);
 - East Cambridgeshire District Council for information on Conservation Areas and Local List;
 - West Suffolk Council for information on Conservation Areas;
 - Portable Antiquities Scheme (PAS);
 - The Cambridgeshire and Suffolk Record Offices;
 - Aerial photographs (Historic England);

- LIDAR (Environment Agency);
- Published and unpublished literature in relation to the archaeological and historical record for the Scheme and study area;
- British Geological Survey (BGS) Geology of Britain Viewer; and
- Online bibliographic resources such as the Archaeological Data Service (ADS) and the British and Irish Archaeological Bibliography (BIAB).

Field walkover

7.4.5 An initial site walkover survey was undertaken on the 27th and 28th November 2018 to record the survival, extent, condition, setting and significance of cultural heritage assets within the DCO Site Boundary. This was followed by another site visit and visual assessment on 5th December 2018. The latter aimed to identify potentially affected historic buildings and related assets including listed buildings, conservation areas and registered parks and gardens within the study area. The setting of these heritage assets was also identified, and potential Scheme impacts were assessed.

Field Investigation

7.4.6 Field investigations have been and continue to be undertaken to refine and augment the desk-based data, including geophysical surveys and trial trenching. The scope and specification of each field investigation have been set out in a Written Scheme of Investigation (WSI), which have been submitted for approval to the County Archaeologists for Cambridgeshire and Suffolk. The first phase of this, comprising geophysical (fluxgate gradiometer) survey, as agreed with the Cambridgeshire and Suffolk County Archaeologists has been undertaken (Ref. 7-20) and the results of this (along with any subsequent phases of evaluation) are summarised below (see Section 7.6). The results of all phases of the field investigations will also be incorporated within the preparation of the cultural heritage chapter in the final ES. Copies of fieldwork reporting will be included as Appendices to the ES.

Impact Assessment Methodology

Assessment Criteria

7.4.7 This preliminary environmental assessment has been undertaken following relevant elements of key guidance, including:

- Historic England Good Practice Advice Note GPA3, The Setting of Heritage Assets (Ref. 7-14);
- Historic England Advice Note 12 Statements of Heritage Significance: Analysing Significance in Heritage Assets (2019) (Ref 7-21); and
- Chartered Institute for Archaeologists, Code of Conduct and Standards and Guidance for Historic Environment Desk-based Assessment (Ref. 7-19).

Scope and Level of Assessment

7.4.8 This section sets out the approach to the assessment of the potential impacts of the Scheme on designated and non-designated heritage assets (including archaeological remains, historic buildings, conservation areas and historic landscapes). The objective of this assessment is to identify any

effects upon cultural heritage receptors that are likely to arise from construction, operation and decommissioning of the Scheme.

- 7.4.9 Identified cultural heritage assets are numbered with their National Heritage List for England (NHLE) numbers or their Historic Environment Record (HER) numbers, issued by Suffolk County Council (SCC) and Cambridgeshire County Council (CCC) respectively. These refer to the assets illustrated on Figure 7-1 and the list of all identified sites listed in ***PEI Report Volume 2: Appendix 7A***.
- 7.4.10 The principles of the impact methodology rest upon independently evaluating the significance of the cultural heritage resources and the magnitude of impact upon that significance. By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the effect can be determined. The effect significance can be beneficial or adverse.
- 7.4.11 The cultural heritage assessment includes an assessment of the heritage significance of potentially affected assets, in line with the NPS EN-1 (Ref. 7-8). This requires the provision of information sufficient to enable adequate understanding of the potential impacts on the significance of any heritage asset (paragraph 5.8.10). This is consistent with the requirements of the NPPF (Ref. 7-11). Both documents also require this assessment to take account of changes to both the physical asset and its setting.
- 7.4.12 The NPS defines, under the IPC (now Planning Inspectorate) decision making, the value of heritage assets as “*the value of a heritage asset to this and future generations because of its heritage interest,*” (Ref. 7-8). The NPPF sets out criteria which should be considered when assessing the significance of cultural heritage assets, which include archaeological, architectural, artistic and historic interest (Ref. 7-11). These criteria have been used in the assessment of significance for each affected asset and this information, in conjunction with professional judgement, have been used to assess the value of heritage assets.
- 7.4.13 Both documents relate impacts affecting the value of heritage assets with harm. There is a requirement to determine whether the level of harm amounts to ‘substantial harm’ or ‘less than substantial harm’. The NPS and NPPF make it clear that substantial harm to, or loss of, a Grade II designated asset would be exceptional and that to a Grade II* or I asset, or Scheduled Monument, should be ‘wholly exceptional’ (Ref 7-8). Although there is no direct correlation between the significance of effects identified through the EIA process and the level of harm caused to heritage significance, the assessment of harm arising from the impact of the Scheme will be reported within the ES and determined using professional judgement, and with regard to the following considerations:
- A major (significant) effect on a heritage asset would more often be the basis by which to determine that the level of harm to the significance of the asset would be substantial. However, substantial harm is considered to be a high test and a case-by-case assessment should be made.
 - A moderate (significant) effect is unlikely to meet the test of substantial harm and would therefore more often be the basis by which to

determine that the level of harm to the significance of the asset would be less than substantial.

- A minor or negligible (not significant) effect would still amount to less than substantial harm.
- A neutral effect would be classified as having no harm.

7.4.14 A formal assessment of harm will be undertaken as part of the ES and each asset will be assessed on an individual basis. For example, some moderate effects may cross the threshold into substantial harm.

Assessment of Value

7.4.15 The value (also referred to as its 'heritage significance') of a heritage asset is derived from its heritage interest which may be archaeological, architectural, artistic or historic. The significance of a place is defined by the sum of its heritage values. Taking these criteria into account, each identified heritage asset can be assigned a level of heritage value in accordance with the criteria set out in Table 7-1.

Table 7-1: Criteria for Determining the Value of Heritage Assets

Heritage Value	Criteria
High	Assets of international importance, such as World Heritage Sites Grade I and II* listed buildings Grade I and II* registered historic parks and gardens Registered battlefields Scheduled monuments Non-designated archaeological assets of schedulable quality and importance
Medium	Grade II listed buildings Grade II listed registered historic parks and gardens Conservation areas Locally listed buildings included within a conservation area Non-designated heritage assets of a regional resource value
Low	Non-designated heritage assets of a local resource value as identified through consultation Locally listed buildings Non-designated heritage assets whose heritage values are compromised by poor preservation or damaged so that too little remains to justify inclusion into a higher grade

7.4.16 When professional judgement is considered, some sites may not fit into the specified category presented in Table 7-1 above. Each heritage asset is assessed on an individual basis and considers regional variations and individual qualities of sites, including the contribution made by its setting.

Magnitude of Impact

- 7.4.17 Having identified the heritage value of the heritage asset, the next stage in the assessment is to identify the level and degree of impact to an asset arising from the Scheme. Potential impacts are defined as a change resulting from the Scheme which affects a heritage asset. The impacts of a development upon heritage assets can be positive or negative; direct or indirect; long term or temporary and/or cumulative. Impacts may arise during construction or operation. Impacts can occur to the physical fabric of the asset or affect its setting. Direct physical impacts are considered permanent and result in the total, or partial, loss of a heritage asset. These impacts are not reversible. Impacts to setting are split between those resulting from construction activities which are short-term, and those considered to last for the duration of the development. These are considered to be long-term, but can be reversed upon decommissioning.
- 7.4.18 The level and degree of impact (impact rating) is assigned by reference to a four-level scale as set out in Table 7-2 below. The level of impact takes account of mitigation measures which have been embedded within the Scheme as part of the design development process (embedded mitigation, see Section 7.7).

Table 7-2: Criteria for Determining the Magnitude of Impact on Heritage Assets

Magnitude of impact	Description of impact
High	Change such that the heritage significance of the asset is totally altered or destroyed through physical impact. Comprehensive change to setting affecting its heritage significance, resulting in a serious loss in our ability to understand and appreciate the asset.
Medium	Change such that the heritage significance of the asset is affected, but not destroyed, through physical change (including partial loss). Noticeably different change to setting affecting significance, resulting in erosion in our ability to understand and appreciate the asset.
Low	Change such that the heritage significance of the asset is slightly affected through physical alteration. Slight change to setting affecting its heritage significance resulting in a change in our ability to understand and appreciate the asset.
Very low	Changes to the asset that hardly affect heritage significance. Minimal change to the setting of an asset that have little effect on its heritage significance resulting in no real change in our ability to understand and appreciate the asset.

- 7.4.19 An assessment to classify the effect, having taken into consideration any embedded mitigation, is determined using the matrix at **Chapter 5: EIA Methodology** which takes account of the significance (heritage value) of the asset (Table 7-1) and the magnitude of impact (Table 7-2).
- 7.4.20 This chapter considers that major or moderate effects are significant for the purposes of the EIA Regulations, in accordance with standard EIA practice.

7.5 Stakeholder Engagement

- 7.5.1 Statutory and non-statutory bodies have been consulted as part of the assessment process to obtain background data, information and records concerning cultural heritage assets within defined study areas, and to develop the assessment scope.
- 7.5.2 Consultation has been carried out with the Planning Archaeologists at SCC and CCC regarding geophysical surveys and archaeological investigations between 4th May 2019 and 7th May 2020.
- 7.5.3 Consultation meetings have also been held with Historic England between 10th May 2019 and 20th August 2019, to discuss scheduled monument consent, geophysical surveys, Scheme design and the scope of the EIA.
- 7.5.4 Consultation to date has been outlined in Table 7-3. This includes post-scoping consultation responses by CCC and SCC, East Cambridgeshire District Council (ECDC), West Suffolk Council (WSC) and Historic England.

Table 7-3: Engagement Undertaken

Consultee	Summary of main matter raised	How has the matter been addressed	Location of response in chapter
Planning Inspectorate	Effects of Grid Connection Routes A and B on the setting of heritage assets. The ES should assess impacts on the setting of heritage assets from the grid connection where significant effects are likely to occur.	Where significant effects are likely to occur, impacts on the setting of heritage assets will be included as part of the construction stage assessment.	Section 7.8
Planning Inspectorate	Study Area: The Scoping Report does not justify the chosen study area	The Study Area has been determined in conjunction with the LVIA and has been discussed and agreed with relevant stakeholders within workshops undertaken for the Scheme.	Section 7.4
Planning Inspectorate	Scheduled Monuments: The Scoping does not clearly address the Scheduled Monuments within the 1km study area.	All Scheduled Monuments have been described in the baseline section.	Section 7.6
Planning Inspectorate	Potential Effects and Mitigation: The ES should provide details of the surveys used to inform the assessment.	A geophysical survey has been undertaken and a trial trenching survey will be undertaken to inform the ES.	Section 7.4
ECDC and	A Historic	An overarching WSI will be	Section 7.8

Consultee	Summary of main matter raised	How has the matter been addressed	Location of response in chapter
CCC	Environmental Management Plan Should be developed for the ES.	produced. It is not proposed that a HEMP will be prepared.	and 7.9
ECDC, Historic England, Suffolk County Council/WSC and CCC	Physical evaluation of the Scheme and desk-top data including PAS	A geophysical survey has been undertaken and a trial trenching survey will be undertaken to inform the ES. PAS data has been used to inform the assessment.	Section 7.6 and 7.8
ECDC and Suffolk County Council/WSC	Additional viewpoints from Chippenham Hall and gardens and the top of St Margaret Church should be included.	These viewpoints will be incorporated into the ES.	N/A
Historic England	Where relevant, the cultural heritage should be cross-referenced to other chapters or technical appendices; for example noise, light, traffic and landscape.	Noted, where relevant cross-references have been made.	Section 7.8
Historic England	The EIA should consider the impact upon both designated and non-designated heritage assets. This should include the impact upon the setting of the heritage assets within the surrounding area.	The impact on designated and non-designated assets has been considered.	Section 7.8
Historic England	We would also expect the Environmental Statement to consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest.	The impact, where relevant is considered.	Section 7.8
Historic England	There is also potential for undesignated buried archaeological remains within the proposed development site as the scheme occupies a large area	A geophysical survey has been undertaken and a trial trenching survey will be undertaken to inform the ES. PAS data has been used to inform the assessment.	Section 7.6 and 7.8

Consultee	Summary of main matter raised	How has the matter been addressed	Location of response in chapter
	which has largely not been subject to previous archaeological study.		
Historic England, ECDC, CCC and Suffolk County Council/WSC	Assessment of setting should not be restricted to visual impact, but should also consider other environmental factors such as noise, traffic and lighting, where relevant. The assessment should be carried out in accordance with established policy and guidance, including the National Planning Policy Framework	Assessment of setting has included all relevant environmental factors and has been undertaken in line with established policy and guidance.	Section 7.8
CCC	Assessment of Harm	An assessment of Harm will be undertaken within the ES.	Section 7.4
ECDC (District Councillor for Burwell)	Do not understand why no mention is made of the visual impact on the scheduled ancient monument "Devil's Dyke"	This has been considered within the PEI Report	Section 7.6
Historic England	Scheduled Monument consent (SMC) for geophysical survey of a bowl barrow on Chalk Hill, approximately 380m west of the Chalk Hill cottages (NHLE 1018097).	SMC granted and geophysical survey works undertaken.	N/A
Cambridgeshire County Council	Archaeological Evaluation strategy for the Site as detailed in the Evaluation Brief.	Geophysical survey works undertaken. A suitable programme of evaluation trenching works will be drafted in a WSI.	N/A
Suffolk County Council	Approval of WSI for Sunnica East Site geophysical survey.	Geophysical survey works undertaken.	N/A
CCC, SCC and Historic England	Scheme design, Site-wide archaeological evaluation strategy and approach for cultural heritage input into the	Geophysical survey works undertaken. A suitable programme of evaluation trenching works will be drafted in	N/A

Consultee	Summary of main matter raised	How has the matter been addressed	Location of response in chapter
	ES.	a WSI.	
Historic England	Potential impacts of the Scheme upon Scheduled Monuments both in the Site and within the Study Area.	Assessment of impacts upon the scheduled monuments and listed buildings has been included within this chapter.	See Section 7.8 of this Chapter
Historic England	Scheduled Monument consent (SMC) for geophysical survey of the four bowl barrows north of the A11/A14 Junction, part of the Chippenham Barrow Cemetery, (NHLE 1015246).	SMC granted and geophysical survey works undertaken.	N/A
Historic England	Specialist assessments to support the ES requested: LiDAR and aerial photography, geophysical and geoarchaeological	Geophysical survey works undertaken to date. Evaluation trenching works to be carried out prior to ES submission. The findings of the evaluation trenching works will be included in the ES. LiDAR and aerial photography transcription works are ongoing.	N/A
Historic England, West Suffolk Council and East Cambridgeshire District Council	Landscape and Built Heritage Workshop. Heritage Viewpoints	Viewpoints have been agreed and visualisations/photomontages are currently being prepared for inclusion in the ES.	N/A. The visualisations will be included in the ES.

7.6 Baseline Conditions

7.6.1 The Scheme occupies a large area which has largely not been subject to previous archaeological study. Desk based assessments detailing the heritage baseline, including a statement of significance for each site are included in **PEI Report Volume 2: Appendix 7A**. Designated and non-designated heritage assets are shown on Figure 7-1 and Figure 7-2.

7.6.2 Throughout the baseline, assets of the highest significance (value), including Grade I and II* listed buildings and Scheduled Monuments, located outside the 1km study area but within the wider 5km study area, which have the potential to be affected by changes in their setting have been identified. These were examined to establish their current and historic setting in order to understand whether changes from the Scheme would affect the ability to understand and appreciate their setting and, thus, affect their heritage significance, given their particular nature of that heritage significance. The setting of these assets was reviewed through a combination of site survey, research and professional judgement and the

ZTV prepared by the Landscape and Visual Impact Assessment (LVIA) team was consulted. This can be found in **Chapter 10: Landscape and Visual Amenity**, Figure 10-11.

Existing Baseline

Sunnica East Site A

Designated Assets

- 7.6.3 There are 31 designated heritage assets within 1km from the Sunnica East Site A. These are outlined in the sections below.

Scheduled monuments

- 7.6.4 There are no scheduled monuments within the Sunnica East Site A.
- 7.6.5 The 1km study area includes two scheduled monuments; the remains of Freckenham Castle (NHLE 1006070) and the lime kilns on the east side of Isleham High Street (NHLE 1006871). Additional scheduled monuments within 5km of the Sunnica East Site A include the Hurst Fen Neolithic site, several Bronze Age barrows, a Roman villa, the find-spot of the late Roman Mildenhall Treasure, and Isleham Priory Church. All Scheduled Monuments are considered to be of high value.

Listed buildings

- 7.6.6 There are no listed buildings within the Sunnica East Site.
- 7.6.7 There are 29 listed buildings within the 1km study area. These are concentrated in the villages of Freckenham, Isleham and the hamlet of Badlingham, with additional buildings to the south of West Row. The Church of St Andrew (NHLE 1126475) in Isleham is Grade I listed, while the Church of St Andrew (NHLE 1037614) and the Manor House (NHLE 1037615) in Freckenham are both listed at Grade II*. These are considered to be of high value. The remaining buildings within the 1km study area are listed at Grade II and are of medium value.
- 7.6.8 Within 5km a further six Grade I listed and four grade II* listed churches were identified for consideration, including those within the settlements of Mildenhall, Tuddenham, Isleham (two buildings), Chippenham, Fordham, Kentford, Kennett, Barton Mills and Herringswell. The setting of these assets was reviewed and assessed to be largely associated with their settlement and does not extend into the development area. Two assets, the churches of St Mary in Barton Mills (Grade II*, NHLE 1351305) and the parish church of St Margaret in Chippenham (Grade I, NHLE 1161953) were considered further within the baseline due to their proximity to the Scheme, increasing the potential for a greater intrusion into their setting (**PEI Report Volume 2: Appendix 7A**). While both have prominence within the landscape, it was not considered that this would be adversely affected by the proposals for Sunnica East (Sites A and B) as their function as markers for the settlements would not be diminished

Registered parks and gardens

- 7.6.9 There are no registered parks and gardens within the Sunnica East Site A or the 1km study area.

- 7.6.10 Chippenham Hall Registered Park and Garden (RPG) lies approximately 2.5km to the south of the Sunnica East Site A (RPG Grade II; NHLE 1000615). Chippenham Hall RPG includes 19th century pleasure grounds surrounded by a park laid out at the beginning of the 18th century and subsequently landscaped in the 1790s by William Emes and Samuel Lapidge. The RPG is set around The Hall, a Queen Anne revival country house (Grade II listed building; NHLE 1331778). The former 18th century main entrance drive extends approximately 3.2 km southwards from the Grade II* lodges and gateway (NHLE 1126376). The formal parkland is defined by its brick boundary walls, with the south drive extending towards Newmarket. While the wider rural landscape is not visible from within the park, it does form part of its setting, revealing evidence of the impact landowners had on the landscape, and forming part of the informal parkland context. The RPG, including the Hall also have an important relationship with the village of Chippenham to the north and this influence is visible within the arrangement of buildings and the predominant architectural style.
- 7.6.11 Additional listed buildings are located within the RPG to the north of the Hall, including the Grade II* Stable Block (NHLE 1126375). The RPG is of medium value, containing listed buildings of high (the lodges, gateway and Stable Block) and medium (The Hall) value. The setting of these buildings is defined by the formal parkland, functioning as a discrete group associated with the hall.
- 7.6.12 There are no other registered parks and gardens within the 5km area of consideration.

Conservation areas

- 7.6.13 There are two conservation areas that fall within the 1km study area; Freckenham Conservation Area and Isleham Conservation Area. The Freckenham Conservation Area consists of two parts, to the north and south of the village of Freckenham. The northern part encompasses mainly early 19th century farm buildings, while the southern section incorporates former manor buildings as well as a medieval church, rectory and the remains of the Freckenham Castle. The conservation area contains nine listed buildings, located along Church Lane, Elms Road and North Street, including the Grade II* Listed Manor House (NHLE 1037615). The setting of the conservation area is rural with open fields separating it from the nearby villages of Chippenham and Worlington. The character of the landscape changes from west to east, with that towards the Scheme largely defined by flat open fields broken up by belts of trees. Despite this flatness, there is little appreciation of the settlement within long distance due to the abundance of vegetation within it. Both conservation areas are considered to be of medium value.
- 7.6.14 The Isleham Conservation Area is located in the village of Isleham, centred on Church Street, Pound Lane and Mill Street and includes more than 30 listed buildings (16 of which fall within the study area) and two scheduled monuments (one of which falls within the study area). Historic buildings in the village date to the late post-medieval period and prominent building materials include clunch and pebble, ragstone and brick. The conservation area is focussed on the historic core of the settlement, with later development extending to the east and west. There is, therefore, little

appreciation of the conservation area from the surrounding landscape, despite its flat, rural character. The conservation area is of medium value.

Non-designated Assets

- 7.6.15 The baseline, as derived from the HER databases (and detailed within the DBAs), comprises assets (both features and discrete artefacts/material culture scatters) dating from the Palaeolithic to the modern periods.
- 7.6.16 Within the 1km study area, finds are unevenly distributed, with concentrations around Worlington/Barton Mills, Freckenham, Red Lodge, and in lesser densities, in the swathe of land either side of the River Kennett between Freckenham and Red Lodge.
- 7.6.17 In outline, the non-designated archaeological assets baseline includes 274 records for the Sunnica East Site A and the 1km study area. Three of these assets are located within the Sunnica East Site A. Table 7-4 (below) provides a summary of non-designated assets within Sunnica East Site A.

Historic Landscape

- 7.6.18 The 1km study area for Sunnica East Sites A and B combined, which were initially assessed in the DBA as a single study area, contains, or intersects with 124 character areas, as defined within the Suffolk Historic Landscape Characterisation (HLC). Land categorised as 18th century and later enclosure accounts for 70% of ground within the 1km study area, including the vast majority of both of the Sunnica East Sites; most is classified as having been created from former common arable or heath, with a small percentage from a former warren. Woodland accounts for 5% of the study area, present mainly as small copses or linear screens within the agricultural environment; this is all classified as modern plantation on former common arable or heath. Meadow or managed wetland accounts for a further 6%.
- 7.6.19 Collectively, these elements contribute to a landscape character that is predominantly a later post medieval and modern agricultural landscape, which has largely erased the previous landscape pattern. Built up areas account for 9% of the landscape, encompassing the major settlements of Mildenhall and Red Lodge, together with the smaller villages. Industry accounts for 5%, with communications, horticulture, post-medieval park/leisure (all modern) and an ancient monument collectively making up the remaining 5% of the landscape.

Geophysical Survey – Zone A

- 7.6.20 The Geophysical Report is included in ***PEI Report Volume 2: Appendix 7B***. Zones are shown within the figures in this report. Zone A is located immediately southeast of Isleham and is bounded by further fields to the north, Lee Brook to the east and the village Isleham to the north-west. The village of Freckenham is located approximately 500m to the south. The survey was undertaken across six fields covering an area of approximately 130ha. In the centre of Zone A, a large-scale (over 5.5ha), multi-phase complex was detected, comprising linear and rectilinear anomalies creating orthogonal formations. Straight trackways to the north, south, and west extend from a complex of rectilinear anomalies interpreted as a large productive site such as a villa or a farmstead. The trackways, as well as the

cellular structure of the archaeological complex, are interpreted as indicative of an origin in the Roman period. Findspots recorded within the limits of, and in close proximity to this complex, include Roman, early medieval, medieval and post-medieval artefacts. A ring ditch was identified within one of the larger rectilinear enclosures in the north, suggesting a prolonged occupation, with multiple phases of activity predating the Roman period. Outside the main area of activity, approximately 140m to the east, a large circular feature with a 50m diameter likely relating to a hengiform monument was identified.

- 7.6.21 Multiple linear anomalies, some of which appear to form a regular, large field system, were identified in the northeast of Zone A. Numerous anomalies in this area also overlap, indicating multiphase activity, and do not correspond with field boundaries recorded on available historic maps, suggesting an origin predating available mapping.
- 7.6.22 A section of the former Cambridge and Mildenhall Branch railway was detected in the centre of Zone A. The varying strength and type of magnetic signal along the length of the former railway indicates that removal was more complete in the east. Two former field boundaries recorded to the north and south of the railway line are shown on historic mapping.
- 7.6.23 Ploughing trends and drainage features associated with modern agricultural activity were identified across the majority of Zone A.

Geophysical Survey – Zone B

- 7.6.24 Zone B is located approximately 1km south-west of West Row and is bounded by River Lark to the north, Lee Brook to the west, further fields to the east and Beck Road to the south. The survey was undertaken across two fields covering an area of approximately 107ha. Approximately 71.1ha was not able to be surveyed due to heavy furrows, waterlogging, overgrown vegetation and to the presence of pigs. It is intended for the majority of this area will be surveyed prior to submission of the ES, and the results included within the assessment. Small areas that remain unable to be surveyed due to ground conditions are not considered to be a limitation to the understanding of the baseline.
- 7.6.25 Zone B exhibits a relative absence of archaeological anomalies, in contrast with other Zones within the geophysical survey area. This is likely attributable to limited land use in fenland areas due to waterlogging without the implementation of field drainage and waterlogging generally inhibiting the magnetic enhancement of soils. However, it is very difficult to state with certainty whether this primarily indicative of an absence of archaeological features, or limited magnetic contrast between features and surrounding soils.
- 7.6.26 In the northwest of the Zone, a group of curved anomalies have been interpreted as being alluvial in nature.
- 7.6.27 A circular ditch-like anomaly measuring approximately 30m in diameter was identified in the south-west of Zone B, likely indicating a ring ditch through which the Cambridge and Mildenhall Branch railway cuts directly through the middle of. It has similar dimensions to scheduled bowl barrows recorded

at the A11/ A14 junction to the south (NHLE 1015246), and at Chalk Hill to the east (NHLE 1018097).

- 7.6.28 A broad ferrous anomaly detected in the south of Zone B corresponds with the location of the Cambridge and Mildenhall Branch railway. The varying strength and type of the magnetic signal along the length of the former railway indicates the removal of the trackway was more complete in its western and eastern extent than in the central section.
- 7.6.29 Agricultural activity is evident in the form of ploughing trends and drains, and modern activity is evident in the form of magnetic disturbance and agricultural trends related to dismantled and extant pig paddocks across the centre-south and southeast of Zone B.

Table 7-4: Summary of non-designated assets within Sunnica East Site A

Asset reference number	Name	Period	Value (Significance)	Summary
MCB9234	Barnwell Junction to Mildenhall railway (disused)	Post-medieval-modern	Low	Opened in June 1884 but was never very successful and it was closed to passengers on 18/061962
MSF35054	Cambridge to Mildenhall Railway	Post-medieval-modern	Low	Cambridge to Mildenhall Railway
MSF19960	Medieval silver half groat, NW of Fourcross Bridge	Unknown	Low	Metal detected fragment of a silver half groat, Edward III, 4th coinage, 1351-77, French title, London Mint.
-	Geophysics: Multi-phase complex (villa or farmstead)	Prehistoric-Roman	High	Large-scale (over 5.5ha), multi-phase complex was detected, linear and rectilinear anomalies creating orthogonal formations, Straight trackways to the north, south, and west, ring ditch, large circular feature 140m to the east likely relating to a hengiform monument.
-	Geophysics: linear anomalies	Unknown	Medium	Multiple linear anomalies, regular, large field system, multiphase activity, predating available mapping
-	Geophysics: circular ditch anomaly	Unknown	Medium	Circular ditch-like anomaly likely indicating a ring ditch through which the Cambridge and Mildenhall Branch railway cuts directly through the middle of, similar dimensions to scheduled bowl barrows.

Sunnica East Site B

Designated Assets

7.6.30 There are 17 designated heritage assets within 1km from the Sunnica East Site B. These are outline in the sections below.

Scheduled monuments

7.6.31 There are no scheduled monuments within the Sunnica East Site B. There is a single scheduled monument immediately adjacent to the Sunnica East Site B. This is a Bronze Age bowl barrow on Chalk Hill, 380m north west of Chalkhill Cottages (NHLE 1018097).

- 7.6.32 Additional scheduled monuments within 5km of the Sunnica East Site B include the Hurst Fen Neolithic site, several Bronze Age barrows, a Roman villa, the find-spot of the late Roman Mildenhall Treasure, and Isleham Priory Church.
- 7.6.33 All the scheduled monuments are considered to be of high value.

Listed buildings

- 7.6.34 There are no listed buildings within the Sunnica East Site B.
- 7.6.35 There are 16 listed buildings within the 1km study area. These are concentrated in the village of Worlington and the hamlet of Badlingham, with additional buildings to the south-west of Barton Mills. The Church of All Saints (NHLE 1037585) in Worlington is Grade I listed and of high value. The remaining buildings are listed at Grade II and of medium value.
- 7.6.36 Within 5km a further six Grade I listed and four grade II* listed churches were identified for consideration, including those within the settlements of Mildenhall, Tuddenham, Isleham (two buildings), Chippenham, Fordham, Kentford, Kennett, Barton Mills and Herringswell. The setting of these assets was reviewed and assessed to be largely associated with their settlement and does not extend into the development area.

Registered parks and gardens

- 7.6.37 There are no registered parks and gardens within the Sunnica East Site B or the 1km study area.
- 7.6.38 Chippenham Hall Registered Park and Garden lies approximately 1.9 km to the southwest of the Sunnica East Site B (RPG Grade II; NHLE 1000615). Chippenham Hall RPG includes 19th century pleasure grounds surrounded by a park laid out at the beginning of the 18th century and subsequently landscaped in the 1790s by William Emes and Samuel Lapidge. The RPG is set around The Hall, a Queen Anne revival country house (Grade II listed building; NHLE 1331778). The former 18th century main entrance drive extends approximately 3.2 km southwards from the Grade II* lodges and gateway (NHLE 1126376). The formal parkland is defined by its brick boundary walls, with the south drive extending towards Newmarket. While the wider rural landscape is not visible from within the park, it does form part of its setting, revealing evidence of the impact landowners had on the landscape, and forming part of the informal parkland context. The RPG, including the Hall also have an important relationship with the village of Chippenham to the north and this influence is visible within the arrangement of buildings and the predominant architectural style.
- 7.6.39 Additional listed buildings are located within the RPG to the north of the Hall, including the Grade II* Stable Block (NHLE 1126375). The RPG is considered to be of medium value, while the listed buildings within it are of medium (the Hall) and high (the lodges, gateway and Stable Block) value. The setting of these buildings is defined by the formal parkland, functioning as a discrete group associated with the hall.
- 7.6.40 There are no other registered parks and gardens within the 5km study area.

Conservation areas

- 7.6.41 There are no conservation areas that fall within the 1km study area.

Non-designated Assets

- 7.6.42 The baseline, as derived from the HER databases (and detailed within the DBAs), comprises assets (both features and discrete artefacts/material culture scatters) dating from the Palaeolithic to the modern periods.
- 7.6.43 Within the Sunnica East Site B, the majority of recorded assets are located north of the B1102 and outside of the Scheme, between Worlington and Freckenham. The remainder of the Sunnica East Site B is largely devoid of recorded assets. Within the 1km study area, finds are also unevenly distributed, with concentrations around Worlington/Barton Mills, Freckenham, Red Lodge, and in lesser densities, in the swathe of land either side of the River Kennett between Freckenham and Red Lodge.
- 7.6.44 Nineteen previous archaeological investigation (events) are recorded in the Sunnica East Site B study area, again largely north of the B1102. These comprise test pits approximately 750m north-west of the Sunnica East Site B which identified pottery from the Iron Age to the post-medieval periods. A total of 12 archaeological trial trench evaluations are also recorded, which have identified prehistoric pits and Roman pottery 670m west of the Sunnica East Site B, Anglo-Saxon features approximately 480m north-west of the Sunnica East Site B, and Roman tile with medieval features 830m north-west of the Sunnica East Site B. Additionally, a single excavation, located approximately 830m west of the Sunnica East Site B, identified medieval and post-medieval structures. A programme of aerial photography assessment, and a programme of fieldwalking and metal detector survey along a proposed water pipeline between Isleham and Mildenhall are also recorded. The latter identified pottery, CBM, flint and metalwork throughout the route, but found no particular concentration. A single geophysical survey, and programme of archaeological monitoring at New Park Farm (ESF24183) recorded no features or finds.
- 7.6.45 In outline, the non-designated archaeological assets baseline includes 274 records for the Sunnica East Site and the 1km study area. Five of these assets are located within the Sunnica Site B Site and these are summarised in Table 7-5 below.

Historic Landscape

- 7.6.46 The 1km study area for Sunnica East Sites A and B combined, which were initially assessed in the DBA as a single study area, contains, or intersects with 124 character areas, as defined within the Suffolk Historic Landscape Characterisation (HLC). Land categorised as 18th century and later enclosure accounts for 70% of ground within the 1km study area, including the vast majority of the Sunnica East Sites; most is classified as having been created from former common arable or heath, with a small percentage from a former warren. Woodland accounts for 5% of the study area, present mainly as small copses or linear screens within the agricultural environment; this is all classified as modern plantation on former common arable or heath. Meadow or managed wetland accounts for a further 6%.

- 7.6.47 Collectively, these elements contribute to a landscape character that is predominantly a later post medieval and modern agricultural landscape, which has largely erased the previous landscape pattern. Built up areas account for 9% of the landscape, encompassing the major settlements of Mildenhall and Red Lodge, together with the smaller villages. Industry accounts for 5%, with communications, horticulture, post-medieval park/leisure (all modern) and an ancient monument collectively making up the remaining 5% of the landscape.

Geophysical Survey – Zone C

- 7.6.48 Zone C is located directly to the south-west of the village of Worlington, and bounded by B1102 to the north, fields to the east, Heath Farm to the south and further fields and Rectory Farm to the west. Survey was undertaken across 18 fields under arable use and one field under pasture use covering approximately 199ha. It was not possible to survey approximately 21.2ha due to the presence of horses and pigs, approximately 0.4ha due to waterlogging and overgrown vegetation, and approximately 0.2ha due to the presence of pig pens.
- 7.6.49 As in Zone B, Zone C lies within a formerly waterlogged fenland area, which may have led to limited land-use and/or impacted magnetic enrichment of soils associated with archaeological activity. Numerous distinctive bands of strongly enhanced material were identified across the northern and central sections of Zone C as naturally occurring dissolution features caused by seasonal flooding and water flow.
- 7.6.50 A long, linear anomaly was detected crossing five of the fields surveyed in the centre and south of Zone C following a north-east to south-west alignment for approximately 730m, before turning north and continuing for approximately 650m, and likely relates to past landscape organisation. No corresponding feature has been recorded on historic maps, and it does not follow the alignment of any former or current field boundaries.
- 7.6.51 Further activity is limited to weak modern ploughing trends and some drainage features. Other magnetic disturbance, which may mask underlying features if any are present, relates to three large buried services in the northern and central parts of Zone C, a smaller service detected in the south of Zone C, and an extant electric fence in the centre-east of Zone C.
- 7.6.52 Several undetermined anomalies have been detected across Zone C, which may be anthropogenic or natural in origin.

Geophysical Survey – Zone D

- 7.6.53 Reporting Zone D is located immediately southeast of the village of Worlington and bounded by Golf Links Road to the north, the A11 to the east, and further fields to the south and west. Survey was undertaken across eight fields, seven of which were under arable cultivation and one was undifferentiated grassland, covering approximately 113.11ha. It was not possible to survey approximately 0.37ha due to crop cover, approximately 0.61ha being used as an environmental set aside area and containing various ferrous obstacles, and approximately 0.41ha in due to large tractor ruts and multiple mounds of manure. It is intended for the majority of this area to be surveyed prior to submission of the ES, and the results included

within the assessment. Small areas that remain unable to be surveyed due to ground conditions are not considered to be a limitation to the understanding of the baseline.

- 7.6.54 The scheduled monument, Bowl Barrow on Chalk Hill (NHLE 1018097), is present within Zone D, located at the top of a hill within this area. The monument itself could not be surveyed due to vegetation and the steeply sloping sides of the mound. Two further ring ditch anomalies were detected 660m north and 630m north-west of the monument, measuring approximately 25m and approximately 28m in diameter respectively, and may be part of a wider cluster of bowl barrow monuments.
- 7.6.55 Two long linear anomalies were detected on a northeast-southwest orientation in the north-west of Zone D. As no corresponding feature has been recorded on historic maps, they have been interpreted as having a possible archaeological origin.
- 7.6.56 Two partial inner and outer rings, with a further central anomaly with a strong signature, were identified in near the centre of Zone D, extending beyond the southern boundary of the field. This is suggestive of a further ring ditch, possibly with a central feature and an inner ditch.

Table 7-5: Summary of non-designated assets within Sunnica East Site B

Asset reference number	Name	Period	Value (Significance)	Summary
MCB9234	Barnwell Junction to Mildenhall railway (disused)	Post-medieval-modern	Low	Opened in June 1884 but was never very successful and it was closed to passengers on 18/06/1962
MSF35054	Cambridge to Mildenhall Railway	Post-medieval-modern	Low	Cambridge to Mildenhall Railway
MSF16531	Red Lodge Warren	Medieval-post-medieval	Medium	Area of Red Lodge Warren, evidence since 1249 into the post-medieval period.
MSF10199	Single ring ditch of unknown date	Unknown	Low	Single ring ditch, circa 30m diameter on 1956 aerial photograph (possibly linked to A585 which is thought to be the same cropmark, identified on LiDAR as more likely to be an extractive pit)
MSF11615	Chalk Hill, Bay Farm	Unknown	Medium	Human bones, remains of two individuals found during construction work
-	Geophysics: linear anomaly	Unknown	Low	Long, linear anomaly, likely relates to past landscape organisation, does not follow

Asset reference number	Name	Period	Value (Significance)	Summary
				the alignment of any former or current field boundaries.
-	Geophysics: linear anomalies	Unknown	Low	Two long linear anomalies, possible archaeological origin.
-	Geophysics: ring ditch?	Unknown	Low	Possible ring ditch, possibly with a central feature and an inner ditch.

Sunnica West Site A

Designated Assets

7.6.57 There are 25 designated heritage assets within 1km from the Sunnica West Site A. These are outline in the sections below.

Scheduled Monuments

7.6.58 There are five scheduled monuments within the 1km study area for Sunnica West Site A, one of which falls within the Sunnica West Site A. This comprises four bowl barrows north of the A11/A14 junction, part of the Chippenham barrow cemetery (NHLE 1015246). The additional four scheduled monuments include a Howe Hill bowl barrow (NHLE 1015011); a bowl barrow 630m south east of Waterhall Farm, part of the Chippenham barrow cemetery (NHLE 1015243); the Rookery bowl barrow, part of the Chippenham barrow cemetery (NHLE 1015243), 250m south of Waterhall Farm (NHLE 1015244); and the Hilly Plantation bowl barrow, part of the Chippenham barrow cemetery, 500m south west of Waterhall Farm (NHLE 1015245). The scheduled monuments are of high value.

Listed buildings

7.6.59 There are no listed buildings within the Sunnica West Site A.

7.6.60 There are 18 listed buildings within 1km of the Sunnica West Site A. These reflect development in the medieval and post-medieval periods. They include four Grade II* listed buildings, the parish Church of St Peter (Grade II*, NHLE 1331773); The Old Rectory (Grade II*, NHLE 1331772); and the Lodges, gateway and railings (Grade II*, NHLE 1126376) and Stable Block (Grade II*, NHLE1126375) in Chippenham Hall park. These are of high value. Chippenham Hall itself is Grade II listed and of medium value. The agricultural history of the area is illustrated by a number of farmhouses, within the village of Snailwell but also scattered in the countryside including the Waterhall farmhouse (Grade II, NHLE 1126383) and the Park Farmhouse (Grade II, NHLE 1162059). These are considered to be of medium value.

- 7.6.61 There are four Grade I and 15 Grade II * listed buildings within 5km from the Sunnica West Site A. The setting of these assets has been reviewed and the ZTV prepared by the LVIA team was consulted; this can be found in **Chapter 10: Landscape and Visual Amenity**. Due to the flat topography of the area, existing woodland that provides screening and the location of some of the assets within settlements, having a more sub-urban setting, it is considered unlikely that their setting will be affected by the Scheme and the construction of Sunnica West Sites, therefore they are not discussed further in this assessment.

Registered parks and gardens

- 7.6.62 There is one registered park and garden that falls within the 1km study area and partly within the Sunnica West Site A. This comprises Chippenham Hall (RPG, Grade II, NHLE 1000615), of medium value. Chippenham Hall RPG includes 19th century pleasure grounds surrounded by a park laid out at the beginning of the 18th century. The RPG is set around The Hall (Grade II, NHLE 1331778), a Queen Anne Revival country house, located to the north of the 1km study area. The former 18th century main entrance drive extends approximately 3.2 km to the south of the Grade II* lodges and gateway (NHLE 1126376) to the south of the park and bisects the Sunnica West Site A. Additional listed buildings are located within the RPG to the north of the Hall, including the Grade II* Stable Block (NHLE 1126375). The RPG is of medium value, containing listed buildings of high (the lodges, gateway and Stable Block) and medium (The Hall) value.
- 7.6.63 The formal parkland is defined by its brick boundary walls, with the south drive extending towards Newmarket. While the wider rural landscape is not visible from within the park, it does form part of its setting, revealing evidence of the impact landowners had on the landscape, and forming part of the informal parkland context. The RPG, including the Hall also have an important relationship with the village of Chippenham to the north and this influence is visible within the arrangement of buildings and the predominant architectural style.

Conservation areas

- 7.6.64 There is one conservation area that falls within the 1km study area. This is the Snailwell Conservation Area. Snailwell is a small village located to the south-west of Chippenham Hall RPG. All but a very small number of properties are included within the conservation area. The village follows a linear arrangement with buildings focussed onto the street, with the Church of St Peter located off the main street to the west, nestled within an area of woodland. To the north, south and west, the village is largely surrounded by bands of woodland which give it its enclosed character, while to the east are open fields which extend to Chippenham Hall RPG, following the tree-lined Chippenham Road. The conservation area includes 10 listed buildings, most of them located to the west of The Street around Church Lane. The conservation area is of medium value with the majority of listed building of medium value, with the exception of the Grade II* listed Old Rectory (NHLE 1331772) and Church of St Peter (NHLE 1331773) which are of high value.
- 7.6.65 Newmarket Conservation Area is located approximately 1.5km to the south of the Sunnica West Site A. It lies on the south western end of the Breckland, an area once of sandy heaths and rabbit warrens. It is

surrounded by an open and gently undulating grassland landscape laid out as gallops, stud farms and the historic racecourses on Newmarket Heath in the west. The special character of Newmarket derives from the overlay of the horse breeding, training and racing activities, the medieval layout of the market town with 19th century Regency Victorian and Edwardian buildings that rarely exceed three storeys.

Non-designated Assets

- 7.6.66 There are a total of six non-designated heritage assets that fall within the boundary of Sunnica West Site A as outlined in Table 7-6 below. There are no non-designated extant buildings within the study area.

Historic Landscape

- 7.6.67 In Cambridgeshire, the historic landscape is characterised by enclosed arable land, small pockets of woodland and several concentrations of ancient monuments (including scheduled barrows). Built up areas, encompassing a number of settlements, including the villages of Chippenham and Snailwell and the hamlet of Fordham. The historic park of Chippenham Hall (RPG, Grade II, NHLE 1000615), is prominent in the landscape, extending to the north of the Sunnica West Site A.
- 7.6.68 At the time of preparing the DBA baseline upon which this is based, no HLC was available for Cambridgeshire. No detailed discussion of HLC is therefore included within this baseline summary. Following consultation with planning archaeologists, and receipt of updated Cambridgeshire HLC data, along with the geophysical survey results and transcription of aerial photography and LiDAR data, a detailed assessment of the Cambridgeshire historic landscape will be included within in the full ES chapter.

Geophysical Survey – Zone E

- 7.6.69 Zone E located approximately 1.3km west of Kennett, and is bounded by the B1085 to the north, fields to the east, the A14 to the south and La Hogue Road to the west and bisected by the A11 on a north to south alignment. The survey was undertaken across eight fields under arable cultivation covering an area of approximately 135.59ha.
- 7.6.70 Evidence of possible settlement activity has been identified in the form of a concentration of small enclosures with other associated anomalies located in the north-west corner of Zone E, uphill from the former marshy landscape. Linear ditch-like features have been detected which respect local topography towards the fenland were detected further east within the same field.
- 7.6.71 Broad bands of strongly enhanced natural deposits were identified crossing the northern end of Zone E from east to west, as well as in the southernmost area. There is a comparatively higher density of Neolithic finds in these fields, suggesting an erosive environment exposing material for detection at the surface.
- 7.6.72 A positive linear anomaly was identified in the western half of Zone E, running 218m in a northeast to southwest alignment before turning north and extending a further 216m. The feature appears to extend beyond the survey extent. A linear anomaly on the same alignment is present

approximately 260m southwest in the northeast field of Zone F (see below). While a clear connection between the two anomalies was not possible to establish due to the un-surveyed field between them, a projected course of the ditches suggests a correlation. Historic maps show no corresponding feature for either of the anomalies, suggesting that they are archaeological in origin.

- 7.6.73 An area of short linear positive anomalies forming possible enclosures appears to be contained within a rectilinear boundary covering a 1.7ha area, located approximately 360m to the west of the long, linear ditch anomaly. The boundary surrounding the area is incomplete but has a possible double ditch element to its southwestern extent. A smaller potential enclosure measuring approximately 34m x 33m was identified inside or potentially abutting the ditch of the outer enclosure, with multiple fragmentary linear and curvilinear anomalies and discrete positive anomalies which may be pits within this area.
- 7.6.74 In the eastern and southern areas, two former extraction pits were identified, along with the infill material from a former pond, corresponding to locations identifiable on 1885 OS mapping.
- 7.6.75 Trends relating to modern ploughing and drainage have been detected across Zone E, as well as three buried services and a wide band of magnetic material running through the centre of the area, likely related to the spreading of modern green waste material.

Geophysical Survey – Zone F

- 7.6.76 Reporting Zone F is located approximately 0.5km east of Snailwell and is bounded by further fields to the north, La Hogue Road to the east, the A11 and A14 to the south and by a farm track to the west. Survey was undertaken across seventeen fields, eight of which were under arable cultivation, three left fallow, and six pasture or undifferentiated grassland, covering an area of 304.1ha. The former RAF Snailwell was located, in part, in the southern extent of the Zone. Concentrated areas of ferrous and debris spread correspond with features associated with RAF Snailwell and demolished farms recorded on historic OS maps. The scheduled Chippenham barrow cemetery (NHLE 1015246) extends into the northeast part of Zone F.
- 7.6.77 A series of ditches, large rectangular enclosures, and small rectilinear enclosures were detected abutting the field edge immediately south of Foxburrow Plantation, corresponding with undated enclosures recorded in the HER database interpreted from cropmarks. Some of the northwest-southeast aligned ditches appear to extend through the copse into the field to the south, where further multi-phase archaeological activity has been identified in the form of a series of linked rectilinear enclosures with overlapping features, associated pits and field system components covering an area of at least 5ha. The impact of the airfield is relatively minimal, limited primarily to a curving band of ferrous debris spread across the northern, eastern, and western end of this field.
- 7.6.78 Some of the ditches and enclosures in the northern part of the field appear to continue into the field further south, which abuts the former avenue leading to the pleasure grounds associated with Chippenham Hall. These

appear to form or are incorporated within a larger wider field system continuing into the southern part of Zone F where a drove or trackway is evident.

- 7.6.79 A smaller series of enclosures (MCB10819) was detected in the northernmost corner of Zone F, situated next to an area of background patterning similar to those identified in the southwest end of Zone F. The similarities in size and form suggests later Prehistoric settlement activity, covering approximately 1ha.
- 7.6.80 A series of parallel, regularly spaced linear anomalies in the southern and south-eastern parts of Zone F indicate historic agricultural activity, possibly strip fields or widely spaced ridge and furrow. These occur on a different alignment to a potential irregularly shaped enclosure defined by very narrow ditches. At the eastern end of this topographically dependant flow-based patterning is a single isolated ring ditch measuring approximately 19m in diameter. Its isolated nature suggests a funerary origin, rather than domestic. This possible barrow is located approximately 650m to the southwest of a larger barrow, measuring approximately 28m in diameter, which is part of the Chippenham barrow cemetery (NHLE 1015246) in the north-eastern part of Zone F. A second isolated ring ditch measuring approximately 13m in diameter in the neighbouring field immediately to the northwest was identified as being another possible barrow.
- 7.6.81 One of the known barrows associated with the scheduled Chippenham barrow cemetery (NHLE 1015246) was detected as a clear circular anomaly with comparatively wide ditches. No further similar anomalies correlated with the relative location of the other scheduled barrows in this area. Further positive anomalies to the north of the barrow are indicative of ditches, forming possible enclosures abutting a trackway-like feature.
- 7.6.82 Two further circular anomalies were detected approximately 860m to the north-west of the Chippenham barrow cemetery (NHLE 1015246) in the northern end of Zone F. The northern of the two circular anomalies measures approximately 29m in diameter, similar in size to one of the Chippenham barrows to the southeast, suggesting another funerary monument. The southern circular anomaly is larger, measuring approximately 37m in diameter, and appears to be contained within a rectangular enclosure which measures approximately 57m x 47m in size. This rectangular enclosure occurs on a similar alignment to a curvilinear ditch immediately south, which extends northwest to southeast through the centre of the northern part of Zone F, where it appears to link up to two parallel ditches indicative of a trackway within a field system. The relative phasing of these features is uncertain. The enclosed larger circular anomaly also has closely associated discrete positive anomalies interpreted as probable pits.
- 7.6.83 The survey area also includes further long linear anomalies, only a few of which can be associated with mapped former boundaries. To the north of the former RAF Snailwell, a long negative anomaly was detected that extends on a northwest-southeast alignment, corresponding with a broad cropmark identified as medieval furlong boundaries. An isolated ditch on a north-west to south-east alignment was detected in the west of Zone F, but was difficult to discern against the surrounding fluvial geology.

Table 7-6: Summary of non-designated assets within Sunnica West Site A

Asset reference number	Name	Period	Value (Significance)	Summary
MCB12139	Neolithic flint scatter, Chippenham	Neolithic	Low	Flint scatter marked on SMR map. No further information.
MCB 12140	Neolithic flint scatter, Chippenham	Neolithic	Low	Flint scatter marked on SMR map. No further information.
MCB12141	Neolithic arrowhead, Kennett	Neolithic	Low	Neolithic arrowhead find spot marked on SMR map. No further information.
MCB12181	Fieldwalking finds, Kennett	Prehistoric	Low	Fieldwalking produced 9 worked flints, mainly blades from prepared cores, and three fire-cracked flints, clearly indicating an area of prehistoric activity.
MCB12182	Prehistoric flints, Chippenham	Prehistoric	Low	Rapid preliminary fieldwalking (30 minutes) produced 9 worked flints, including one core, clearly indicating an area of prehistoric activity.
MCB23370	Sand Pit, Kennett. Illustrated on 2nd edition Ordnance Survey map dated to 1901	Modern	Low	Site of a sand pit illustrated on the 2nd edition Ordnance Survey map dated to 1901. The sand pit is marked as 'old' on the map
MCB5261	Roman pottery sherds and bronze age worked flint, Chippenham	Bronze Age-Roman	Low	A scatter of several worked lithics including fire-cracked flint and Roman sherds, mostly grey wares.
MCB9544	Neolithic flint scatter, Chippenham	Neolithic	Low	A widespread site falling into 3 main areas. At the national grid reference given was also a large laurel-leaf arrowhead.
MCB9044	Neolithic-Bronze Age flint knapping site, Dane Hill, Kennett	Dane Hill, Kennett Early Neolithic to Late	Medium	Flint knapping site, worked and struck flakes of black flint. Dense widespread scatter along A11 road.

Bronze
Age

MCB9546	Possible barrow, Kennett	Bronze Age	Low	First identified by the Fenland Survey in 1981. However CCC investigations in 1992 suggest that the feature is natural. The barrow is therefore not recommended for scheduling
MCB9547	Prehistoric settlement site, Kennett	Mesolithic – Bronze Age	Low	Evidence of Mesolithic, Neolithic and Bronze Age activity through flint artefacts recovered through fieldwalking, , although no below-ground investigation carried out. The geophysical survey (2020) did not identify and probable or possible archaeological anomalies related to potential settlement activity on the site or immediate vicinity
MCB9033	Bronze Age flint implement, Snailwell	Neolithic	Low	Bronze Age material recovered including burnt flint. Some gravel, also dark area.
MCB8998	Iron Age and Roman pottery scatter, Snailwell Fen	Bronze Age	Medium	Site spanning the Iron Age and Roman periods, with dark areas and pottery finds. The Site has the potential for well-preserved remains. A few bronze Age flints were also recovered.
MCB8999	Roman bead, brooch, coins and sherds, Snailwell Fen	Bronze Age	Low	Fibula, blue glass bead, pottery inc. Horningsea ware.
MCB9001	Rectilinear enclosure cropmarks, Snailwell	Bronze Age	Low	A series of faint cropmarks were observed on Google Earth aerial photography, 430m directly northeast of the Scheduled Monument, Snailwell Roman villa
MCB9002	Fordham Abbey	Medieval	Low	Gilbertine priory founded before 1227 and dissolved in 1538. There were probably never more than 4 or 5 canons here. A hospital was founded before 1279 for 14 poor persons.

MCB5260	Barrow, Chippenham	Bronze Age	High	Bronze Age barrow. Surface find. Damaged. 43.5m diameter and approximately 0.9m high. Some flints but no fire-cracked material.
MCB14733	Late Iron Age coins, Foxburrow Plantation	Iron Age	Low	Found 1996, reported 'night hawking'.
MCB14737	Roman votive axe find, Chippenham	Roman	Low	A Roman bronze votive axe found through metal detecting in 1997.
MCB14706	Roman pottery, Chippenham	Roman	Low	Miscellaneous Roman sherds, both abraded & fresh. Between 2nd and 4th century. On field surface.
MCB12268	Furlong boundary, Chippenham	Medieval	Medium	Probable furlong boundary
MCB12221	Furlong boundaries, Snailwell	Medieval	Medium	Furlong boundaries
MCB15150	RAF Snailwell	Modern	Low	World War Two (WW2) airfield, army co-operation; now agriculture & A14.
MCB10819	Enclosures, Snailwell	Unknown	Low	No finds, possibly geological
-	Geophysics: possible settlement activity, linear features	Unknown	Low	Evidence of possible settlement activity, uphill from the former marshy landscape
-	Geophysics: enhanced natural deposits	Possibly Neolithic	Low	Comparatively higher density of Neolithic finds, suggesting an erosive environment exposing material for detection at the surface
-	Geophysics: linear anomalies, (continuous?)	Unknown	Low	Positive linear anomaly, linear anomaly on the same alignment, a projected course of the ditches suggests a correlation. Historic maps show no corresponding feature for either of the anomalies.
-	Geophysics:	Unknown	Low	Short linear positive

possible
enclosures

anomalies forming possible enclosures appears to be contained within a rectilinear boundary, possible double ditch, smaller potential enclosure identified inside or potentially abutting the ditch of the outer enclosure, multiple fragmentary linear and curvilinear anomalies and discrete positive anomalies which may be pits.

-	Geophysics: Post-extraction pits	Post-medieval	Low	Two former extraction pits, infill material from a former pond, identifiable on 2 nd edition OS mapping
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Sunnica West Site B

Designated Assets

- 7.6.84 There are 19 designated heritage assets within 1km from the Sunnica West Site B. These are outlined in the following sections.

Scheduled Monuments

- 7.6.85 There is a single scheduled monument located within the 1km study area for the Sunnica West Site B, although none within the Scheme boundary. This is the Roman villa south of Snailwell Fen (NHLE 1006868) of high value.

Listed Buildings

- 7.6.86 There are 16 listed buildings that fall within 1km of Sunnica West Site B. Ten of these are also included within the Sunnica West Site A baseline and have been mentioned in the section above. This includes four Grade II* listed buildings, the parish Church of St Peter (Grade II*, NHLE 1331773); The Old Rectory (Grade II*, NHLE 1331772); and the Lodges, gateway and railings (Grade II*, NHLE 1126376) and Stable Block (Grade II*, NHLE 1126375) in the Chippenham Hall Park, farmhouses in Snailwell, Waterhall farmhouse (Grade II, NHLE 1126383) and Park Farmhouse (Grade II, NHLE 1162059). The six remaining listed buildings are all Grade II listed and of medium value, located in the village of Fordham. The exception, with regards to location, is Phantom Cottage (Grade II, NHLE 1126385), which is located to the west of Chippenham Hall RPG.

Registered Parks and Gardens

- 7.6.87 There is one RPG that falls within the Sunnica West Site B. This is Chippenham Hall (RPG, Grade II, NHLE 1000615) which also falls within Sunnica West Site A and is described under the relevant section above. The RPG is of medium value.

Conservation Areas

- 7.6.88 There is one conservation area that falls within 1km from the Sunnica West Site B. This is the Snailwell Conservation Area which also falls within 1km from the Sunnica West Site A and is described under the relevant section above.

Non-designated heritage assets

- 7.6.89 There are a total of 16 non-designated heritage assets that fall within the boundary of Sunnica West Site B. These are detailed in Table 7-7 below. There are no non-designated extant buildings within the study area.
- 7.6.90 As covered within the DBAs (***PEI Report Volume 2: Appendix 7A***), the majority of archaeological sites and finds are generally located near areas of recent development within and around the Sunnica West Site B, reflecting the findings of developmental archaeological works. While this may suggest a concentration of human activity, it may be more indicative of an investigation bias, with undiscovered archaeological evidence potentially present in areas that have not been recorded or investigated as extensively. The location, extent and character of archaeological activity will be characterised in detail following the completion of the ongoing geophysical survey, and the subsequent trial trench evaluation which will be based on the results of this. The results of both these investigations will be incorporated within the full ES chapter.

Historic Landscape

- 7.6.91 In Cambridgeshire, the historic landscape is characterised by enclosed arable land, small pockets of woodland and several concentrations of ancient monuments (including scheduled barrows). Built up areas, encompassing a number of settlements, including the villages of Chippenham and Snailwell and the hamlet of Fordham. The historic park of Chippenham Hall (RPG, Grade II, NHLE 1000615), is prominent in the landscape, extending to the north of the Sunnica West Site.
- 7.6.92 At the time of preparing the DBA baseline upon which this is based, no HLC was available for Cambridgeshire. No detailed discussion of HLC is therefore included within this baseline summary. Following consultation with planning archaeologists, and receipt of updated Cambridgeshire HLC data, along with the geophysical survey results and transcription of aerial photography and LiDAR data, a detailed assessment of the Cambridgeshire historic landscape will be included within in the full ES chapter.

Geophysical Survey – Zone G

- 7.6.93 Reporting Zone G is located approximately 700m north-west of Snailwell and is bounded by the River Snail to the west, Fordham Road to the south, farm tracks to the east and a small wooded area bordering further fields to the north. Survey was undertaken across seven fields, five of which were pasture or undifferentiated grassland, and two of which were arable at the time of survey, covering an area of approximately 60.5ha. It was not possible to survey approximately 2.1 ha due to overgrown vegetation, waterlogging and the presence of young trees. It is intended for the majority of this area to be surveyed prior to submission of the ES, and the results included within the assessment. Small areas that remain unable to be

surveyed due to ground conditions are not considered to be a limitation to the understanding of the baseline.

- 7.6.94 A complex area of multi-phase, late prehistoric to Roman activity was identified on a slight rise near the centre of Zone G, covering approximately 5 ha. Given the fen characteristics of the zone immediately north of this complex, it is possible that these features extend into the fen area but may not have sufficient contrast for detection due to waterlogging inhibiting the magnetic enhancement of the sediments.
- 7.6.95 The east-west aligned activity towards the centre part of the Zone G is characterised by a concentrated core of settlement activity, which is defined by very strong discrete and linear anomalies, interpreted as pits and ditches, with linear anomalies extending to the north, south, and east defining an associated field system or less intensively used features.
- 7.6.96 The archaeological activity on the north-south alignment is situated more towards the eastern and southern parts of Zone G and covers approximately 1 ha. There is no clear link between the multi-phase prehistoric settlement described above and this group of anomalies, and the size and scale of the enclosure features within this north-south group are slightly smaller. The morphology of the enclosures is suggestive of medieval croft and tofts, although the results were not clear, and the anomalies in this area were fragmentary. These anomalies appear to be situated around a long ditch-like anomaly extending into the north-eastern part of Zone G, and two different trackways appear to lead into the location of this anomaly cluster.
- 7.6.97 A buried service has been identified running approximately east to west across the south of Zone G, causing a strong overwhelming magnetic response which will obscure any weaker underlying signals that may be present. No intrusive works will be permitted in the immediate vicinity of the service, but evaluation trenching works will be carried out as close as can be permitted to these areas to characterise any remains that may have been obscured by the magnetic signal.

Table 7-7: Summary of non-designated assets within Sunnica West Site B

Asset reference number	Name	Period	Value (Significance)	Summary
MCB9357	Iron Age and Roman find scatter, Snailwell	Iron Age-Roman	Medium	Iron Age and Roman material was recovered from a site measuring approximately 5ha. The material recovered included Iron Age and Roman sherds. Some gravel, part earthwork, dark area. Condition damaged.
MCB9358	Iron Age and Roman	Iron Age-Roman	Medium	Site spanning the Iron Age and Roman periods, with

Asset reference number	Name	Period	Value (Significance)	Summary
	pottery scatter, Snailwell Fen			dark areas and pottery finds. The Site has the potential for well-preserved remains. A few bronze Age flints were also recovered.
MCB8981	Roman bead, brooch, coins and sherds, Snailwell Fen	Roman	Medium	Fibula, blue glass bead, pottery inc. Horningsea ware.
MCB20063	Rectilinear enclosure cropmarks, Snailwell	Iron Age-Roman	Low	A series of faint cropmarks were observed on Google Earth aerial photography, 430m directly northeast of the Scheduled Monument, Snailwell Roman villa
MCB14463	Gardens and park at Fordham Abbey	Post-Medieval	Low	Gardens and park at Fordham Abbey known from documentary sources
-	Geophysics: multi-phase activity	Late Prehistoric-Roman	Medium	Complex area of multi-phase, late prehistoric to Roman activity identified on a slight rise, covering approximately 5 ha.

Grid connection Routes and Burwell National Grid Substation Extension

7.6.98 The Scheme will connect to the existing Burwell National Grid Substation. The cable route corridor for Grid Connection Route A, between the Sunnica East Site A and Sunnica West Site A, and Grid Connection Route B, between the Sunnica West Site A and the Burwell National Grid Substation are discussed separately in terms of their heritage baselines.

Grid Connection Route A

Designated Assets

7.6.99 There are no designated heritage assets within the Grid Connection Route A. The Grid Connection works will comprise below-ground works only, and as such, no impact (physical or setting) is anticipated upon designated assets located within the wider study area.

Non-designated Assets

7.6.100 There are two non-designated heritage assets recorded within the Grid Connection Route A. These comprise the post-medieval landscape of Chippenham Park (MCB8994) and the remnants of the WW2 Snailwell Airfield (MCB15150).

Historic Landscape

- 7.6.101 At the time of preparing the DBA baseline upon which this is based, only a small proportion of the 1km study area for Grid Connection A lies within land currently subject to HLC. This land comprises a roughly 1km section at the north-eastern end of Grid Connection A, plus another roughly 1km section to the north-west of Sunnica West Site A. These sections lie within Suffolk. The remainder of the Grid Connection A study area is within Cambridgeshire, for which an HLC was not currently available at the time of DBA and PEI Report preparation. Following consultation with planning archaeologists, and receipt of updated Cambridgeshire HLC data, along with the geophysical survey results and transcription of aerial photography and LiDAR data, a detailed assessment of the Cambridgeshire historic landscape will be included within the full ES chapter.
- 7.6.102 At its north-eastern end, the land is predominantly characterised as 18th century and later enclosure, with small parcels defined for industry and built up ground. In the section to the north-west of the Sunnica West Site A, the ground is again dominated by 18th century and later enclosure, with minor elements of woodland and built up land

Non-designated Assets

- 7.6.103 The following is a list of the non-designated heritage assets (there is considerable overlap with the Sunnica East Site A and B and Sunnica West Site A).

Geophysical Survey

- 7.6.104 It is anticipated that a geophysical survey of Grid Connection Route A will be undertaken and reported in the ES.

Table 7-8: Summary of non-designated assets within Cable Route A

Asset reference number	Name	Period	Value (Significance)	Summary
MCB8994	Chippenham Park	Post-Medieval	Low	Documentary evidence for ornamental canal and lake, arboretum, tree avenue, dovecote, walled garden and hothouse
MCB15150	RAF Snailwell	Modern	Low	WW2 airfield, army co-operation; now agriculture & A14.

Grid Connection Route B

Designated Assets

- 7.6.105 There are no designated heritage assets within the Grid Connection Route B.

Scheduled Monuments

- 7.6.106 There are two scheduled monuments that fall within 1km from the Grid Connection Route B. These comprise a moated site (NHLE 1003800) in the parish of Exning. The second scheduled monument is a Roman villa south

of the Snailwell Fen (NHLE 1006868) that also falls within the study area for Sunnica West Site A, although not within the DCO Site or Scheme footprint itself.

Listed Buildings

7.6.107 There are 41 listed buildings within 1km from the Grid Connection Route B. Four of these listed buildings are located in the village of Fordham and are mentioned under Sunnica West Site B. 34 of these assets are located in the village of Burwell while three are located in the village of Exning. There is one Grade II* listed building; the Church of St Nicholas (NHLE 1162203), in the village of Exning, while the rest of the listed building within 1km of the Grid Connection Route B are Grade II listed.

Registered Parks and Gardens

7.6.108 There are no Registered Parks and Gardens within 1km of the Grid Connection Route B.

Conservation Areas

7.6.109 Burwell North Street Conservation Area is located within 1km of the Grid Connection Route B. Burwell is a long linear Fen edge village that initially developed around the Church of St Mary (Grade I, NHLE 1126396) and the High Street. Burwell North Street Conservation Area encompasses the historic settlement that was developed to the north of the village's High Street. It is composed of two medieval planned settlements; Newnham and North Street and is characterised by long narrow plots with a direct relationship to the waterways (western side) or traditional medieval form of a main street with a back lane (eastern side).

Non-designated Assets

Geophysical Survey

7.6.110 It is anticipated that a geophysical survey of Grid Connection Route B will be undertaken and reported in the ES.

7.6.111 The following is a list of the non-designated heritage assets within the footprint of Cable Route B.

Table 7-9: Summary of non-designated assets within Cable Route B

Asset reference number	Name	Period	Value (Significance)	Summary
MCB16948	Prehistoric remains, Fordham Bypass	Neolithic-Iron Age	Medium	Settlement evidence comprising wells, a midden, pits, a burnt mound and an enclosure.
MCB14997	Prehistoric features, Fordham Bypass Site 1	Neolithic-Iron Age	Medium	Settlement evidence comprising a crouched inhumation, a pit, a field system, a quarry and shaft, a post-built structure, a fence and a

				buried land surface.
MCB16947	Prehistoric and Roman remains, Fordham Bypass	Iron Age-Roman	Medium	Settlement evidence comprising artefact scatters, a post-hole and a post-built structure, field system, burnt mount and ditch.
MCB16946	Roman to Medieval remains, Fordham Bypass	Roman-Medieval	Medium	Settlement evidence comprising a road, a ditch, an inhumation, a hollow, a post-hole and headland.
MCB8084	Ridge and furrow, Burwell	Medieval	Low	Cultivation remains. The common fields of the parish were enclosed in 1817 by Act of Parliament.
MCB8994	Chippenham Park	Post-Medieval	Low	Documentary evidence for ornamental canal and lake, arboretum, tree avenue, dovecote, walled garden and hothouse
MCB14998	Post-medieval enclosure, Fordham Bypass Site 2	Post-Medieval	Low	Ditched enclosure
MCB13044	Boundary, Fordham	Unknown	Low	Cropmark of a previous river boundary

Geophysical Survey – Zone H

- 7.6.112 Reporting Zone H is located approximately 0.9km northeast of Snailwell and is bounded by fields and woodland to the north, east and west, with the three fields of Zone H continuing to the south. The survey was undertaken across three fields under arable cultivation, covering an area of approximately 11.5ha.
- 7.6.113 Infilling processes are recorded in the south of Zone H but are also partly overlapping dissolution anomalies in the north. Groups of linear positive anomalies have been identified across Zone H, in some cases with associated discrete positive anomalies, and interpreted as ditches and pits respectively. The linear ditches follow different orientations and partly intersect each other. No corresponding features have been recorded on historic maps, and they have therefore been interpreted as being of possible archaeological origin. Weak positive, parallel linear anomalies and an alignment of discrete anomalies correspond with the location of an extant trackway in the centre-north of Zone H, shown on the 2nd edition OS map of the area.
- 7.6.114 Three sets of ridge and furrow trends were recorded, with variation in signal strength between the two weaker sets in the north and the stronger set in the centre.

- 7.6.115 Agricultural activity is evident in the form of ploughing trends and tractor tracks across Zone H. A large buried service has been detected in the centre-south of Zone H.

Burwell National Grid Substation Extension

Designated Heritage assets

Scheduled Monuments

- 7.6.116 There are no scheduled monuments within 1km from the Burwell National Grid Substation Extension.
- 7.6.117 Additional scheduled monuments within 5km of the Burwell Substation Site include Devil's Ditch, Reach to Woodditton (NHLE 1003262), located approximately 1.5km south-west of the Burwell Substation Site, within the ZTV. However, due to the distance of the asset from the Burwell Substation Site, and the scale and nature of the Scheme, comprising an extension to the large, already existing Burwell National Grid Substation, it is considered that there will be no impact to the setting of this asset.

Listed buildings

- 7.6.118 There are 24 listed buildings within 1km of the Burwell National Grid Substation, all of which are located in the village of Burwell and the Burwell North Street Conservation Area. These listed buildings also fall within 1km from the Grid Connection Route B.

Registered Parks and Gardens

- 7.6.119 There are no Registered Parks and Gardens within 1km of the Burwell National Grid Substation Extension.

Conservation Areas

- 7.6.120 Burwell North Street Conservation Area is located within 1km of the Burwell National Grid Substation Extension. Burwell North Street Conservation Area also falls within the Grid Connection Route B study area and is described under the relevant section.

Non-designated Assets

- 7.6.121 There are no currently known non-designated heritage assets within the preferred substation location or the two alternative site locations. The geophysical survey or DBA within these areas did not identify any features of potential archaeological origin. This aspect of the baseline will be reviewed following completion of the trial trench evaluation, and the results of this investigation will be incorporated within the full ES chapter.

Future Baseline

- 7.6.122 The baseline cultural heritage details as presented above are not anticipated to change in the absence of the Scheme.

7.7 Embedded Design Mitigation

- 7.7.1 This section contains the mitigation measures relevant to this chapter that are already incorporated into the design, as described in **Chapter 3: Scheme Description**. It forms part of the Framework Construction

Environmental Management Plan (CEMP) (see *PEI Report Volume 2: Appendix 16C*), summarised in Table 7-10.

- 7.7.2 Embedded archaeological mitigation measures proposed, informed by the results of the geophysical survey, include the removal of nine areas of significant (high value) archaeological activity (totalling approximately 90 ha) from the developable area of the Site, and designated as 'Native Grassland Planting within Archaeological Mitigation Areas'. These are further detailed within Table 7-10 and shown on Figures 3-1 and 3-2.
- 7.7.3 With regard to built heritage and historic landscape assets, appropriate and sensitive screening has been developed and implemented to minimise the visual intrusion of the Scheme, while avoiding obscuring or intruding upon views and relationships between heritage assets (preliminary embedded design is shown on the Parameter Plans, see Figures 3-1 and 3-2 and the Outline Landscape and Ecology Management Plan (*PEI Report Volume 2: Appendix 10I*)). Any mitigation planting has taken into consideration the surrounding landscape character and hedge planting has been favoured over tree planting where appropriate. Planting as mitigation to screen views is limited to avoid the creation of new impacts; however, it has been used to enhance existing screening and/ or futureproof against the loss of existing planting as appropriate.
- 7.7.4 Appropriate setbacks have also been incorporated into the scheme design, limiting visibility from key routes through the landscape. In addition, buffer areas have been included around settlements to ensure that settlements remain isolated within the landscape. This also applies to Chippenham RPG, with no development taking place adjacent to the formal park boundary. With specific reference to Chippenham Park, additional planting has been incorporated along the Avenue to enhance and reinstate the historic tree-lined avenue.
- 7.7.5 Geophysical survey works have served to establish areas of archaeological potential across the Scheme.
- 7.7.6 Further mitigation measures are also available by way of flexibility in the Scheme design, with options for alterations to construction methodology or placement of panels and infrastructure where significant archaeology is identified and requires preservation in-situ, or where significant effects are anticipated on the setting of assets. The extent and nature of any mitigation by design will be informed by the results of the trial trench evaluation works, which will provide information on the depth and character of any archaeological remains present within the Scheme footprint, and the information provided by detailed visualisation works, to be included within the final ES Chapter.
- 7.7.7 The table below summarises the preliminary embedded design measures shown on the Parameter Plans and within the Construction Environmental Management Plan (CEMP) in regard to minimising or mitigating any construction effects on the cultural heritage resource.

Table 7-10: Summary of mitigation measures for cultural heritage

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
<p>Potential for impact upon previously unrecorded archaeological deposits.</p> <p>Temporary impacts on the setting of below ground scheduled monuments and other built heritage assets during construction associated with increased visual and noise intrusion.</p>	<p>Archaeological Protection Areas</p> <p>Nine areas of significant (high value) archaeological activity (totalling approximately 90 ha) have been removed from the developable area of the Site, and designated as 'Native Grassland Planting within Archaeological Mitigation Areas' (see Figure 3-1 and 3-2), comprising:</p> <ol style="list-style-type: none"> 1. Expansive multi-phase settlement complex of 11ha (likely Roman) in Geophysical Survey Reporting Zone A 2. A single ring ditch (approximately 30m in diameter) in Geophysical Survey Reporting Zone B 3. Two ring ditch anomalies measuring approximately 25m and approximately 28m in diameter respectively in Geophysical Survey Reporting Zone D 4. A concentration of fragmented possible enclosures that appear to be contained within a rectilinear boundary in Geophysical Survey Reporting Zone E 5. An approximately 24ha area of multi-phase settlement activity located in Zone F 6. A series of ditches, large rectangular enclosures, and small rectilinear enclosures abutting the field edge immediately south of Foxburrow Plantation in Geophysical Survey Reporting Zone F 7. A barrow associated with the scheduled Chippenham barrow cemetery along with two further circular anomalies (all previously unknown) to the north-west, which also likely comprise barrows. The three anomalies are each between approximately 20m and approximately 30m in diameter (also located in Geophysical Survey Reporting Zone F) 8. A complex area of multi-phase (likely late prehistoric to Roman period) activity located in the centre of Geophysical Survey Reporting Zone G 	<p>N/A</p>	<p>The preliminary embedded design is shown on the Parameter Plans</p>

9. A single ring ditch approximately 20m in diameter located within Geophysical Survey Reporting Zone F

Potential for impact upon previously unrecorded archaeological deposits, along with those recorded from the geophysical survey.

Temporary impacts on the setting of below ground scheduled monuments and other built heritage assets during construction associated with increased visual and noise intrusion.

General

A programme of archaeological evaluation and associated paleoenvironmental sampling would accompany pre-construction site investigation works. This would allow a more detailed model of the deposits below the Scheme to be developed and paleoenvironmental information gathered;

The archaeological strategy would include provision for dating of deposits and geoarchaeological assessment to provide information on the timeframe of the deposit sequence and the environments in which it was laid down;

The number and spacing of investigation locations would be agreed with Historic England and the Senior Archaeologists for CCC and SCC. This would enable an assessment of the archaeological potential and value of deposits below the Scheme to be made;

The results of this archaeological sampling regime would inform any requirements for archaeological monitoring or excavation during construction;

Archaeological investigations would take an iterative approach to the evaluation of archaeological potential and establishing the requirements for archaeological mitigation work.

Additional evaluation following detailed design would allow for preservation *in situ* of archaeological remains where reasonably practicable. Where not reasonably practicable, it would enable the implementation of strategy for archaeological recording to preserve the remains impacted by record.

No measures are proposed in relation to the impacts on the setting of below ground scheduled monuments and other built heritage assets during construction, as these will be temporary and considered no greater than the setting impacts from the completed development and can be assessed and mitigated in the same way.

The Overarching WSI provided will be submitted with the DCO Application for review to Historic England, CCC and SCC. Once agreed, this document would establish the objectives for the historic environment works and set out the mechanisms for the appointed archaeological contractor to design the investigation, undertake evaluation, analysis, reporting and deposit the archive prior to construction.

To be confirmed in detailed CEMP.

7.8 Assessment of Likely Impacts and Effects

7.8.1 The Scheme as outlined in **Chapter 3: Scheme Description** have been considered in assessing the likely impacts and effects of the Scheme, whilst considering the embedded mitigation measures described in Section 7.7.

7.8.2 The following provides a proportionate assessment of likely effects on the historic environment. As such, only those assets which are considered to experience an impact from the Scheme, as informed by the DBA and professional judgement, are discussed. Those assets which will not experience an impact on their significance (as defined above), either physically or through changes to their setting, are omitted.

Construction (2023)

7.8.3 This section identifies the potential impacts resulting from the Scheme based on the identified methodology presented above.

7.8.4 Construction impacts include those impacts associated with construction activities, such as ground breaking, moving machinery, noise and construction traffic and erecting new structures. Construction works can impact on heritage assets directly, or indirectly by affecting their setting.

7.8.5 With reference to noise, a noise assessment for both the construction and operational of the development has been undertaken (refer to **Chapter 11: Noise and Vibration**). This considered a wide spread of monitoring sites, concluding a significant increase in noise at a single receptor, namely resulting from works to the Burwell Substation. This increase should be seen in the context of the existing substation.

7.8.6 The noise assessment only considers effects of increased noise on human assets; therefore, no specific heritage assets were monitored. This will be reviewed for the formal ES and specific heritage assets identified for monitoring as appropriate. This will focus on those assets where the peaceful character of their setting is a factor in their significance.

7.8.7 The construction works for the Scheme will include levelling fields, constructing and the solar panels and associated infrastructure, plus connecting the panels to the National Grid through new cable routes. Additional construction activities associated with the Scheme that could have an impact on heritage assets include construction traffic and parking, moving of construction equipment and establishment of temporary compound areas. Construction effects include all changes up until opening of the Scheme and, therefore, include the presence of the Scheme itself.

7.8.8 There will be no physical impacts to any built heritage assets.

7.8.9 Construction of the Scheme has the potential to affect heritage assets in the following ways:

- Partial or total removal of heritage assets;
- Compaction of archaeological deposits by construction traffic and structures; and
- Adverse effects on the setting of heritage assets as a result of visual intrusion, noise, severance, access and amenity.

- 7.8.10 With the above in mind, only extant assets have been brought forward to assessment. Those non-designated assets within the baseline that comprise either discrete findspots or metal detector finds are considered to be no longer present within the Scheme and there would therefore be no impact upon them. These have been noted where relevant to provide context to the Site's historical and archaeological record, however, only extant monuments recorded within the Cambridgeshire and Suffolk HER, features or anomalies identified by geophysical (magnetometer) survey, and spreads of finds which may be indicative of the presence of further below-ground remains have been considered for assessment.

Sunnica East Site A

Designated Assets

- 7.8.11 It is not anticipated that there will be any physical impact upon any designated heritage assets during construction. All impacts will, therefore, result from impacts to their setting. The following assessment has been undertaken in consultation with the landscape and visual team to identify the intervisibility between assets; their setting and the Scheme. Viewpoint photomontages will be prepared as part of the ES. Locations are shown on Figure 10-11. This assessment also considers impacts on setting which are not visual, but will affect our ability to appreciate the significance of the asset through changes in land use, noise and landscape character. This has been undertaken through a review of location, use and historic development.
- 7.8.12 Freckenham Conservation Area and associated listed buildings are expected to experience some short- and long-term adverse effects during the construction of the Scheme. Freckenham Conservation Area encompasses an important historic group of buildings including the Manor House, the Old Rectory, the Church of St Andrew, and the remains of Freckenham Castle. The significance of this historic cluster of buildings lies in the historic interest of the buildings that illustrate the medieval history and early development of the settlement. Architectural interest derives from the appreciation of the design of the historic buildings, their style and materials as well as intervening areas of green that contribute to the character and appearance of the area. The setting of the conservation area is defined by its location at the edge of the valley and includes the surrounding countryside. Key views within the Freckenham Conservation Area are along Church Lane, towards the Manor House and the church; and along North Street. Views from the churchyard to the south to the Old Rectory and east to the countryside are also of importance. Additionally, views from the footpath in the meadow to the west of the castle mound, running from the church to the Golden Boar, include the village and the landscape across the valley. Views from the Street to the south of the Golden Boar focus on the church. The tower of the church is also visible in views of the village from the surrounding area, mostly from the south and south-east. The individual buildings are unlikely to experience an effect from the Scheme as their setting is focussed on the settlement; however, effects are anticipated on the conservation area as a whole. Temporary effects are expected due to construction traffic movement and movement of construction equipment that is likely to affect views from the conservation area to the surrounding countryside. Long-term, reversible, impacts are expected due to the

establishment of the Scheme within the setting of the conservation area. The Scheme will be visible in views to the north of the settlement. This will not affect the understanding of the medieval origins of the settlement, but will impact on the appreciation of the settlement within its rural landscape. Due to the size of the Scheme and the distance to the conservation area, the magnitude of impact on the designated area is expected to be **low** affecting views to the north, resulting in a **minor adverse effect** on the significance of this asset of **medium value**. The setting of the conservation area will also be affected by the proposed development of Sunnica East Site B. The impact of this is discussed in the combined effects section below.

- 7.8.13 The Isleham Conservation Area is located in the village of Isleham, centred on Church Street, Pound Lane and Mill Street and includes more than 30 listed buildings (16 of which fall within the study area). There is the potential for the conservation area to be impacted due to its proximity to the scheme. However, the scheme design includes a significant amount of landscape mitigation within its northern parts, limiting the potential for visual impacts. This includes a large area of native grassland which is consistent with the current arrangement. As such, the impact is considered to be **low**, resulting in a **minor adverse effect** on the significance of this asset of **medium value**.
- 7.8.14 Agricultural listed buildings or listed buildings in isolated locations, outside of main settlements are likely to be adversely affected by the construction of the Scheme, due to their rural setting that extends to the Sunnica East Site A. Of these, those assets which have been identified as experiencing an impact are the Popes (Grade II, NHLE 1194463) and Bargate Farmhouse (Grade II, NHLE 1037558). Significance lies in the historic interest of the farm buildings that illustrate the agricultural history of the area while architectural interest derives from the appreciation of the vernacular style and materials. The agricultural landscape is largely uninterrupted as country roads of low impact connect the villages. These assets are likely to experience some temporary visual intrusion due to the construction traffic movement and movement of construction equipment. Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected by the establishment of the solar panels and associated infrastructure. The magnitude of impact on these assets is expected to be no more than **low**, resulting in a **minor adverse effect** on the significance of these assets of **medium value**.

Non-designated Assets

- 7.8.15 The following table details the construction effects to non-designated heritage assets on Sunnica East Site A.
- 7.8.16 Overall, the effects to non-designated heritage assets are **minor adverse**. One asset (an area of archaeological remains identified by geophysical survey) will be significantly affected (**moderate adverse**) which will require archaeological mitigation measures. Further information regarding the character and date of the archaeological remains will be obtained through pre-application trial trenching works with appropriate archaeological mitigation (to be agreed following consultation with Cambridgeshire and Suffolk Councils) proposed following the works (if warranted).

Table 7-11: Summary of Magnitude of Impact and Significance of Effect for Sunnica East Site A

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
MCB9234	Barnwell Junction to Mildenhall railway (disused)	Low	Within the footprint of the solar arrays, asset no longer extant – geophysical survey indicates the removal of the trackway was more complete in its western and eastern extent than in the central section.	Very Low	Negligible	No
MSF35054	Cambridge to Mildenhall Railway	Low	Within the footprint of the solar arrays, asset no longer extant – geophysical survey indicates the removal of the trackway was more complete in its western and eastern extent than in the central section.	Very Low	Minor	No
-	Geophysics: Multi-phase complex (possible villa or farmstead)	High	Within the archaeological mitigation area (embedded design mitigation), asset <i>in situ</i> , no below ground impact	Very Low	Minor	No
-	Geophysics: linear anomalies	Medium	Within the footprint of the solar arrays, asset <i>in situ</i> , will be directly impacted by solar arrays	High	Moderate	Yes

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
-	Geophysics: circular ditch anomaly	Low	Within the archaeological mitigation area (embedded design mitigation), asset <i>in situ</i> , no below ground impact	Very Low	Minor	No

Sunnica East Site B

Designated Assets

- 7.8.17 It is not anticipated that there will be any physical impact upon any designated heritage assets during construction.
- 7.8.18 Immediately adjacent to the Site boundary, the setting of the bowl barrow on Chalk Hill, 380m north west of Chalkhill Cottages (NHLE 1018097) which borders Sunnica East Site B will be affected by the Scheme, as the Scheme, both during construction and as a completed development, will be visible in the landscape and surrounding the barrow complex the asset is situated in (its setting). The asset is considered to be of **high value** due to its scheduled status and the information the asset holds regarding the prehistoric funerary landscape of the area. The asset also holds some group value from its associations with other barrows (and potentially part of a wider barrow cemetery) on the opposing side of the A11. However, the asset is shielded by a barrier of trees to the north and east which provides screening and separation between the asset and the Sunnica East Site B, and it is not considered that there will be further visual or character impact upon the asset in these directions due to the extant screening. There may be an impact on long distance views to the west, however, although an extant solar farm and the Worlington quarry works are already located approximately 330m to the west, and the A11 road to the south has already separated the asset from the landscape to the south, where two further barrows were previously located. With the immediate context of the asset already impacted and taking into consideration the extant screening to the north and east, the impact on the significance of the asset (of **high value**) is, therefore, anticipated to be **very low** resulting in a **minor adverse effect**.
- 7.8.19 Most of the assets in the village of Worlington are not expected to experience any adverse effects as a result of the construction of the Scheme, due to their location within the built-up area of the village. However, it is possible that views from and towards the Church of All Saints (Grade I, NHLE 1037585), which is located to the north-west of the village and especially the tower of the church, will be affected during the construction of the scheme. The church has historic interest as it illustrates the medieval history of the settlement, and architectural and artistic interest that derives from the appreciation of its Gothic style and imposing scale and mass. The setting of the church includes the village of Worlington and

surrounding countryside. The church, with its west tower, was built in order to dominate its surroundings and is most prominent in views from the surrounding countryside to the west and east. Temporary construction effects are expected due to visual intrusion resulting mainly from movement of construction equipment. In terms of long-term construction impacts, these are likely to arise from the establishment of the Scheme within the setting of the asset that extends to the surrounding countryside. However, only part of this asset is going to be affected by the Scheme through changes to its setting, including views from and towards the asset from the east. The magnitude of impact on this asset is expected to be **very low**, resulting in a **minor adverse effect** on the significance of this asset of **high value**. These changes will be reversible; therefore, the effect will last for the duration of the Scheme.

7.8.20 Freckenham Conservation Area and associated listed buildings are expected to experience some short- and long-term adverse effects from the construction works as well as the presence of the completed Scheme. As described above, Freckenham Conservation Area encompasses an important historic group of buildings including the Manor House, the Old Rectory, the Church of St Andrew, and the remains of Freckenham Castle. The setting of the conservation area is defined by its location at the edge of the valley and includes the surrounding countryside. Key views within the Freckenham Conservation Area are along Church Lane, towards the Manor House and the church; and along North Street. Views from the churchyard to the south to the Old Rectory and east to the countryside are also of importance. Additionally, views from the footpath in the meadow to the west of the castle mound, running from the church to the Golden Boar, include the village and the landscape across the valley. Views from the Street to the south of the Golden Boar focus on the church. The tower of the church is also visible in views of the village from the surrounding area, mostly from the south and south-east. While the individual buildings are unlikely to experience an effect from the Scheme, effects are anticipated on the conservation area as a whole. Temporary effects are expected due to construction traffic movement and movement of construction equipment. Long-term construction impacts are expected due to the establishment of the Scheme in the setting of the conservation area. The Scheme will be visible in views to the east of the settlement. This will not affect the understanding of the medieval origins of the settlement, but will impact on the appreciation of the conservation area within its rural landscape which forms part of its setting. Due to the size of the Scheme and the distance to the conservation area, the magnitude of impact is expected to be **low adverse** affecting views to the east. While mitigation ensures that the relationship with Worlington is retained by pulling the scheme back from the road, there remains a **minor adverse effect** on the significance of this asset of **medium value**. These changes will be reversible; therefore, the effect will last for the duration of the Scheme. The setting of the conservation area will also be affected by the development of Sunnica East Site A.

7.8.21 Agricultural listed buildings or listed buildings in isolated locations, outside of main settlements are likely to be adversely affected by the construction of the Scheme, due to their rural setting that extends to the Sunnica East Site B. These assets include Grange Farmhouse (Grade II, NHLE 1037602) and

The Manor (Grade II, NHLE 1037604). Significance lies in the historic interest of the farm buildings that illustrate the agricultural history of the area while architectural interest derives from the appreciation of the vernacular style and materials. The agricultural landscape is largely uninterrupted as country roads of low impact connect the villages. However, the A11 to the east is a dominant feature of modern infrastructure. These assets are likely to experience some temporary visual intrusion due to the construction traffic movement and movement of construction equipment. Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected by the establishment of the solar panels and associated infrastructure. The magnitude of impact on these assets is expected to be no more than **low**, resulting in a **minor adverse effect** on the significance of these assets of **medium value**.

- 7.8.22 To the west of the Scheme is the settlement of Badlingham, including the Grade II listed Badlingham Manor (NHLE 1126373) and The Cottage (Grade II, NHLE 1126374). The manor house has significance as a 16th century building, later modified, established on an earlier foundation. The site has historic interest as evidence for the early establishment of a manor at Badlingham and its associated moat has landscape significance. The manor is currently concealed by established vegetation which forms an important part of its setting, screening it from the surrounding agricultural fields; however, the agricultural landscape remains an important part of its setting. The Scheme will come close to the asset, interrupting the open fields to the east. While screened from the Scheme, the setting of the manor house will be impacted. There is considered to be a **low impact** on an asset of **medium value** resulting in a **minor adverse effect**. The relationship of the Cottage to the agricultural landscape to the east is less marked; therefore there will be a **very low impact** resulting in a **negligible effect**.

Non-designated Assets

- 7.8.23 The following table details the construction effects to non-designated heritage assets at the Sunnica East Site B. Further information regarding the character and date of the archaeological remains will be obtained through trial trenching works with appropriate archaeological mitigation proposed following the works (if warranted).
- 7.8.24 Overall, the effects to heritage assets are **moderate adverse**. One asset (Beacon Hill, Chalk Hill Round Barrow (MSF215; NHLE 1018097)) will be significantly affected (**moderate adverse**) by the location of the solar panels, although this would be reversible in the long term with the future decommissioning of the Scheme.

Table 7-12: Summary of Magnitude of Impact and Significance of Effect for Sunnica East Site B

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
MCB9234	Barnwell Junction to Mildenhall railway (disused)	Low	Within the footprint of native grassland planting	Very Low	Minor	No
MSF35054	Cambridge to Mildenhall Railway	Low	Within the footprint of native grassland planting	Very Low	Minor	No
MSF215 NHLE 1018097	Beacon Hill, Chalk Hill Round Barrow	High	Extant round barrow borders Site boundary for Sunnica East Site A, setting is directly impacted by solar panels (although reversible in the long term)	Medium	Moderate	Yes
MSF216	Microlith found within Chalk Hill Round Barrow	Medium	Within the footprint of the solar arrays, asset no longer within Scheduled Monument bordering the Site.	Very low	Minor	No
MSF10199	Single ring ditch, (approximately 30m diameter) identified from on 1956 aerial photograph	Low	Within the archaeological mitigation area, asset <i>in situ</i> , no below ground impact	Very low	Minor	No
-	Geophysics: linear anomaly	Low	Directly impacted as it is within the footprint of the solar arrays	High	Moderate	Yes

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
-	Geophysics: linear anomalies	Low	Directly impacted as it is within the footprint of the solar arrays	High	Moderate	Yes
-	Geophysics: possible ring ditch	Low	Within the archaeological mitigation area (embedded design mitigation), asset <i>in situ</i> , no below ground impact	Very low	Minor	No

Sunnica West Site A

Designated Assets

- 7.8.25 It is not expected that there will be any physical impact upon any designated heritage assets during the construction phase at Sunnica West Site A. All impacts will, therefore, result from impacts to their setting. The following assessment has been undertaken in consultation with the landscape and visual team to identify the intervisibility between assets and the scheme. Viewpoints will be prepared as part of the ES. Locations are shown on Figure 10-11. This assessment also considers impacts on setting which are not visual.
- 7.8.26 Within the Sunnica West Site A boundary, the setting of the Scheduled Monument (NHLE 1015246) (comprising four bowl barrows north of the A11/A14 junction, part of the Chippenham barrow cemetery) which is within the DCO site and borders the developable area of Sunnica West Site A will be affected by the Scheme, as the Scheme will be visible in the landscape surrounding the Chippenham Barrow cemetery that the asset is situated in. The asset is considered to be of **high value** due to its scheduled status and the information it contains regarding prehistoric funerary practice as part of the wider Chippenham barrow cemetery. However, the asset is already impacted visually by the placement of A1304 road immediately to the south-east of the barrow complex. The impact on the significance of the asset (based on its **high value**) is, therefore, considered to be **medium adverse** resulting in a **major adverse effect**.
- 7.8.27 The barrows here form part of a larger cemetery which included at least ten similar barrows spread over a distance of c. 1.5km to the south of Chippenham Park, and represent funerary monuments that were designed to be prominent and visible within the landscape; therefore, intervisibility is a key factor in their significance. The placement of the Scheme within the landscape of the monument will disrupt this intervisibility, a key aspect of the significance of the asset, and make it difficult to understand the context of this relationship.

- 7.8.28 Three scheduled monuments also forming part of the Chippenham barrow group are located within the 1km study area. These comprise NHLE 1015243; 1015244 and 1015245. These assets are located to the south of the A11, with one asset (NHLE 1015243), located further to the east on the southern side of the A14. These assets are of **high value** due to their scheduled status and the information they hold regarding the prehistoric funerary landscape in the area. Although these assets are part of a contiguous barrow cemetery, their context is much degraded by the presence of the A11 and A14 roads, along with Waterfall Farm (Farmhouse NHLE 1126383), and as such the barrows and the prehistoric funerary landscape they previously formed part of has been significantly impacted. The road embankments, roadside vegetation and the presence of Waterhall Farm largely screen the assets from the Scheme to the north and as such the magnitude of impact of the Scheme will hardly affect the significance. As such, the magnitude of impact upon the setting and character of the assets is considered to be **very low**. Based on a very low magnitude of impact on an asset of **high value**, the overall effect is considered to be **minor adverse**.
- 7.8.29 A further barrow, comprising the Howe Hill bowl barrow (NHLE 1015011) is located approximately 1.1km east of the Scheme, to the east of the A11. This asset is of **high value** due to its scheduled status and the information it holds regarding the prehistoric funerary landscape in the area. This asset is screened entirely from the scheme by the buildings of Dane Hill Farm and the vegetation that surrounds it, along with the embankment of the A11 road itself. The asset will not share any intervisibility with the Scheme and it is not considered that the development of the Scheme will result in any change to the setting or character of the asset.
- 7.8.30 Waterhall Farmhouse (Grade II, NHLE 1126383) is located approximately 105m south-east of the Sunnica West Site A boundary. The building has historic interest as an 18th century farmhouse and architectural interest that derives from the appreciation of its style. The asset is located within spacious grounds and its setting is rural; however, the A11, that runs between Waterhall Farmhouse and the Sunnica West Site A and the A14, that runs to the south of the asset have eroded that rural setting and provide a separation between the asset and the surrounding countryside. These roads have also severed the farmland associated with the farmhouse from it, considerably changing its setting. Waterhall Farmhouse is likely to experience some visual intrusion during the construction of the Scheme. This is going to have a temporary impact on this asset. The erection of the Scheme, including the establishment of the solar panels and associated infrastructure, is going to introduce new structures in agricultural land that was historically associated with the asset. However, the asset is screened from the Scheme by mature trees that do not allow views towards the Scheme. Due to the A11 that runs between the Scheme and the asset, providing a clear separation and the erosion of the setting of this asset this disturbance is not expected to be any more than a **low magnitude** of impact, resulting in a **minor adverse effect** on this asset of **medium value**.
- 7.8.31 Chippenham Hall RPG (Grade II, NHLE 1000615) is likely to experience adverse effects as a result of the Scheme at Sunnica West Site A. The Grade II Chippenham Hall RPG extends to the south of the village of

Chippenham. It has historic interest as an early 18th century ornamental landscape incorporating changes reflecting alterations in taste in parkland design. The different phases of the development of the park are legible in the landscape but also in the surviving buildings. The plantation belts around the park edge, the lake and the sweeping curvilinear drives are all key features of the late 18th century phase of the park. The lodges and triumphal arch (Grade II*, NHLE 1126376) to the south of the park survive from a slightly earlier phase (1745), marking the main entry point at the time. The lodges mark the end of the extensive southwest drive and the start of the parkland. To the southern point of the drive, off the A1304, there are double red-brick piers surmounted by pineapple finials and linked by a wrought-iron screen wall, standing beside the late 19th century red-brick Bury Road Lodge. The drive itself is lined by an avenue of trees, although many of the trees have been lost. While the structures fall outside the development boundary, the southern part of the tree-lined avenue is included. Trees also define much of the parkland boundary, providing screening and a sense of enclosure separating the parkland and associated buildings from the surrounding landscape. However, that rural setting, including the surrounding farmland and small settlements, further contributes to the character of the park and its significance. It is closely associated with Chippenham village to the north while the south drive reinforces its relationship with its rural surroundings and its prominence within the landscape. Architectural and artistic interest derives from the appreciation of the landscape design of the park, its buildings and structures, as well as features such as the lake, plantation, surrounding walls and drives. The 18th century south drive that continues further south of the southern park wall was disused by the end of the 20th century; however, it is still a distinctive feature of the park and the surrounding landscape and contributes to our understanding of the early history of the park. Since the drive became disused, both the drive and trees have been partially lost. Considerable replanting was carried out during the 20th century but the character of the late 18th century park survives. The perimeter brick walls and screening woodland are prominent in views towards the park, as is the 18th century south drive that continues further south of the southern park wall. The Scheme will have short- and long-term, and permanent adverse impacts on this asset. It will introduce new infrastructure elements within the rural setting of the park that although will be screened for its most part, the landscape around the park will be altered. Construction traffic and equipment movement is likely to have a temporary adverse impact on this asset.

- 7.8.32 The Scheme has been designed to respect the parkland boundary with offsets bringing development away from the boundary walls. In addition, the development is delineated by existing vegetation which will provide screening. This will be enhanced by additional planting which matches the existing in order to enhance the screening, but avoiding any new impact from unsympathetic planting. It is therefore, considered, that the Scheme will not affect the formal park; however, the RPG will be impacted along the south drive. The southern part of the drive is included within the scheme boundary. While there will be no development along the drive, it does extend on both sides. Impacts have been limited through enhancement planting of the drive. This has been designed to supplement what is already there and reinstate vegetation which has been lost. Nevertheless, the

Scheme will change the character of the wider parkland which forms the setting of the RPG and may be visible along the former main drive. As such, the Scheme is likely to have a **medium magnitude** of impact, resulting in a **moderate adverse effect** on this asset of **medium value**.

- 7.8.33 The setting of the listed buildings and structures within Chippenham Hall RPG is defined by their location within the formal park. Their significance lies mainly in their relationship with the park which is not going to be lost due to the construction of the Scheme. However, the setting of the lodges and triumphal arch lodges (Grade II*, NHLE 1126376) to the south of the park is likely to be affected by the Scheme. This is due to their location at the southern end of the park, marking one of its main entrance points, overlooking the surrounding countryside and reinforcing the relationship of the park with its surroundings. Construction traffic and equipment movement is likely to have a temporary adverse impact on this asset. The establishment of the solar panels and associated infrastructure is going to affect views from this asset to the surrounding countryside and change its setting; however, the relationship to the driveway and the appreciation of the asset as a gateway will not be lost. The Scheme is likely to have a **low** magnitude of impact, resulting in a **moderate adverse effect** on this asset of **high value**. This change will be reversible; therefore, the long-term effect will last for the duration of the Scheme.
- 7.8.34 Snailwell Conservation Area has special historic and architectural interest concentrated on main historic core of the village, developed around the Church of St Peter dating from the 11th century. Farm buildings dating from the 16th to the 19th century and the Old Rectory contribute to the character and appearance of the area and illustrate its agricultural history. Late 19th and early 20th century development in the village has respected its character although it differs from the historic development being concentrated within planned sites, set back from the street, behind aligned front gardens. The setting of the village is predominantly rural, surrounded by woodland and agricultural fields. Although views from within the conservation area to the south, west and north are limited due to the topography of the area, being mainly level within the village, views towards the east extend to the surrounding countryside. The Scheme will introduce infrastructure elements in the setting of this asset that are likely to affect the ability to understand and appreciate the asset as a rural settlement. Views along Chippenham Road towards the park have been maintained. Before maturation of the mitigation planting there will be a **low impact** on the significance of the asset. As an asset of **medium value** this will result in a **minor adverse effect**.
- 7.8.35 In terms of the Newmarket Conservation Area, the special historic and architectural interest of the area derives from a number of features, most importantly, the medieval layout of the town, the buildings and areas associated with the long history of horseracing in Newmarket, including training yards and stables, but also 19th century Regency Victorian and Edwardian buildings. The town lies in a shallow depression surrounded by a gently undulating chalk grassland and woodland landscape. Outside Newmarket, the land is occupied by racehorse studs, with pastures set among woodland belts often enclosed by post and rail fences. The training establishments are concentrated in the north and south-western edges of

the town close to the gallops on the wide-open grassland heaths which they adjoin. Exercise and training gallops were laid out at Long Hill, and Warren Hill to the east and on Bury Hill. To the north of the town, on Snailwell Road is the British Horse Racing School adjacent to the A14. The trunk road is on embankment and in cuttings, obstructing views of Newmarket from the north and severing the historic relationship of Newmarket with Exning. There are high quality views from each end of the High Street, particularly looking north-east where the hills and gallops of Long Hill are visible above the roof tops of the High Street. Currently, a viewpoint is being produced from the gallops towards the Scheme and it will be included and assessed in the EIA. The A14 provides a clear separation between the Scheme and the Conservation Area. Due to the A14 with its embankment and cuttings and associated tree screening, there are no views from the conservation area to the Scheme. Therefore, it is preliminary considered that the Scheme will have no impact on this asset.

Non-designated Assets

- 7.8.36 The following table details the construction effects to non-designated heritage assets at the Sunnica West Site A.
- 7.8.37 Overall, the effects to heritage assets are **minor adverse**. However, 10 assets will have significant effects that are **moderate adverse** which will require archaeological mitigation. Further information regarding the character and date of the archaeological remains will be obtained through trial trenching works with appropriate archaeological mitigation proposed following the works (if warranted).

Table 7-13: Summary of Magnitude of Impact and Significance of Effect for Sunnica West Site A

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
NHLE 1015243; 1015244 and 1015245	Three scheduled barrows forming part of the Chippenham barrow group	High	Within 1km study area	Very low	Minor	No
NHLE 1015011	Howe Hill bowl barrow	High	Within 1km study area	No change	No change	No
MCB9033	Bronze Age material recovered including burnt flint. Some gravel, also dark area.	Low	Within Scheme Boundary for Sunnica West Site B, asset no longer extant	Very low	Minor	No
MCB9032	Iron Age	Low	Within the	Very low	Minor	No

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
	and Roman find scatter, Snailwell		footprint of the solar arrays, asset no longer extant			
MCB8998	Iron Age and Roman pottery scatter, Snailwell Fen	High	Within Scheme Boundary for Sunnica West Site B	Low	Moderate	Yes
MCB8999	Roman bead, brooch, coins and sherds, Snailwell Fen	High	Within Scheme Boundary for Sunnica West Site B	Low	Moderate	Yes
MCB9001	Rectilinear enclosure cropmarks, Snailwell	High	Within Scheme Boundary for Sunnica West Site B	Low	Moderate	Yes
MCB9000	Gardens and park at Fordham Abbey	High	Within Scheme Boundary for Sunnica West Site B, evidence no longer extant	Very low	Minor	No
MCB5260	Bronze Age barrow. Surface find. Damaged. 43.5m diameter and approximately 0.9m high. Some flints but no fire-cracked material.	Medium	Within Scheme Boundary for Sunnica West Site B, only surface evidence remains	Low	Minor	No
MCB8995	Chippenham Barrow Cemetery (scheduled)	High	Within Scheme Boundary for Sunnica West Site B	Low	Moderate	Yes
MCB14706	Roman pottery spread, Chippenham	Medium	Within the footprint of the solar arrays, asset no longer extant	Very low	Minor	No

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
MCB12268	Furlong boundary, Chippenham	Low	Within the footprint of the solar arrays	High	Moderate	Yes
MCB12221	Furlong boundaries, Snailwell	Low	Within the footprint of the solar arrays	High	Moderate	Yes
MCB8994	Chippenham Park	Low	Within Scheme Boundary for Sunnica West Site B, evidence no longer extant	Very low	Minor	No
MCB15150	RAF Snailwell. WW2 airfield	Low	Within Scheme Boundary for Sunnica West Site B, evidence no longer extant	Very low	Minor	No
MCB10819	Enclosures, Snailwell	Low	Within the footprint of the solar arrays, possibly of natural origin	Very low	Minor	No
MCB9547	Prehistoric settlement site, Kennett	Low	Within the footprint of the solar arrays	High	Major	Yes
MCB23370	Sand Pit, Kennett. Illustrated on 2nd edition Ordnance Survey map dated to 1901	Low	Within the footprint of the solar arrays, evidence no longer extant	Very low	Minor	No
-	Geophysics: possible settlement activity, linear features	Low	Within the archaeological mitigation area (embedded design mitigation), asset <i>in situ</i> , no below ground impact	Very low	Minor	No
-	Geophysics: enhanced natural deposits	Low	Directly impacted as it is within the footprint of the	High	Moderate	Yes

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
			solar arrays			
-	Geophysics: linear anomalies, (possibly continuous)	Low	Directly impacted as it is within the footprint of the solar arrays	High	Moderate	Yes
-	Geophysics: possible enclosures	Low	Directly impacted as it is within the footprint of the solar arrays	High	Moderate	Yes

Sunnica West Site B

Designated Assets

- 7.8.38 It is not expected that there will be any physical impact upon any designated heritage assets during construction.
- 7.8.39 The construction of the Scheme at Sunnica West Site B will have an adverse impact on a number of designated heritage assets.
- 7.8.40 A scheduled monument, comprising a Roman Villa south of Snailwell Fen, now preserved below farmland (NHLE 1006868), is located immediately west of the proposed location of Sunnica West Site B, although outside the Scheme boundary. The asset is of **high value** due to its scheduled status and the information it holds regarding rural Roman settlement in East Anglia. The asset is well screened to the east by an extant belt of woodland at its eastern edge. There may, however, be fleeting views from the northern boundary of the asset onto the proposed Sunnica West Site B to the north east, which could impact upon the current setting and character of the asset. However, the asset has been degraded to the south, north and west by the presence of modern industrial buildings, and although the area of the proposed Scheme to the east is still in agricultural use (the landscape which would have been contemporary to the villa's use), the landscape characterisation is largely that of post-medieval enclosed fields. The landscape immediately to the east of the asset has been further degraded by the development of the WW2 Snailwell airfield, of which hardstanding, some ruined buildings and access routes remain. The impact from the Scheme upon the setting and character of the asset is not considered to severely impact upon the interpretation of the asset, and as such the magnitude of impact is considered to be **very low**. Based on a **very low** impact on an asset of **high** value, the overall effect is considered to be **minor adverse**. These changes will be reversible; therefore, the effect will last for the duration of the Scheme.
- 7.8.41 Chippenham Hall RPG (Grade II, NHLE 1000615) is likely to experience adverse effects as a result of the Scheme at Sunnica West Site B. The Grade II registered Chippenham Hall Park (described above) extends to the south of the village of Chippenham which forms its northern boundary,

surrounded on all other sides by agricultural fields and woodland. The construction of the Scheme will have short- and long-term adverse impacts on this asset. The construction of the Scheme will introduce new infrastructure elements within the wider parkland and, therefore, the setting of the RPG. However, development within Sunnica West B is minimal with much of the area being used for grassland planting. The construction of the Scheme at Sunnica West Site B is likely to have a **low** magnitude of impact, resulting in a **minor adverse effect** on this asset of **medium value**. There will be a resulting combined effect with the works at Sunnica West A, but this will not raise the effect above that of moderate adverse, as identified from Sunnica West A. both effects are considered to be long-term and reversible upon decommission of the Scheme.

7.8.42 Snailwell Conservation Area has special historic and architectural interest deriving from the main historic core of the village, developed around the Church of St Peter dating from the 11th century. Farm buildings dating from the 16th to the 19th century and the Old Rectory contribute to the character and appearance of the area and illustrate its agricultural history. The setting of the village is predominantly rural, surrounded by woodland and agricultural fields. Views from within the conservation area to the south, west and north are limited due to the topography of the area, being mainly level within the village, views towards the east extend to the surrounding countryside. The Scheme will introduce modern elements within the setting of this asset; however, these are limited with much of the area being used for mitigation grassland planting, consistent with the current use of the land. The construction of the Scheme at Sunnica West Site B is, therefore, likely to have a **low** magnitude of impact, resulting in a **minor adverse effect** on this asset of **medium value**. These changes will be reversible; therefore, the effect will last for the duration of the Scheme.

7.8.43 Isolated farm buildings dispersed within the study area or within hamlets such as Fordham and Landwade are also likely to experience adverse effects due to the construction of the Scheme at Sunnica West Site B. These assets include the Park Farmhouse (Grade II, NHLE 1162059) and the Phantom Cottage (Grade II, NHLE 1126385), to the west of Chippenham Park. Movement associated with the construction activities at the Sunnica West Site B is likely to introduce a temporary visual intrusion at these assets. The establishment of the Scheme will also change the rural setting of these assets resulting in a **low** magnitude of impact, resulting in a **minor adverse effect** on the significance of these assets of **medium value**. These changes will be reversible; therefore, the effect will last for the duration of the Scheme.

Non-designated Assets

7.8.44 The following table details the construction effects to non-designated heritage assets at the Sunnica West Site B.

7.8.45 Overall, the effects to non-designated heritage assets are **minor adverse**. Further information regarding the character and date of the archaeological remains will be obtained through trial trenching works with appropriate archaeological mitigation proposed following the works (if warranted).

Table 7-14: Summary of Magnitude of Impact and Significance of Effect for Sunnica West Site B

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
NHLE 1006868	Roman Villa south of Snailwell Fen	High	Located within 1km study area	Very low	Minor	No
MCB9356	Bronze Age material recovered including burnt flint. Some gravel, also dark area	Low	Within the footprint of the solar arrays, asset no longer extant	Very low	Minor	No
MCB9357	Iron Age and Roman find scatter, Snailwell	Medium	Within the footprint of the solar arrays, asset no longer extant	Very low	Minor	No
MCB9358	Iron Age and Roman pottery scatter, Snailwell Fen	Medium	Within the footprint of the solar arrays, asset no longer extant	Very low	Minor	No
MCB8981	Roman bead, brooch, coins and sherds, Snailwell Fen	Medium	Within the footprint of the solar arrays, asset no longer extant	Very low	Minor	No
MCB20063	Rectilinear enclosure cropmarks, Snailwell	Low	Within the footprint of the solar arrays, asset not investigated	Medium	Minor	No
-	Geophysics: possible settlement activity, linear features	Low	Directly impacted as it is within the footprint of the solar arrays	High	Moderate	Yes
-	Geophysics: enhanced natural deposits	Low	Directly impacted as it is within the footprint of the	High	Moderate	Yes

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
			solar arrays			
-	Geophysics: linear anomalies, (possibly continuous?)	Low	Directly impacted as it is within the footprint of the solar arrays	High	Moderate	Yes
-	Geophysics: possible enclosures	Low	Directly impacted as it is within the footprint of the solar arrays	High	Moderate	Yes

Combined Effects on Receptors

Designated Assets

- 7.8.46 The construction of the Scheme at Sunnica East Sites A and B and Sunnica West Sites A and B is likely to have some combined effects on a number of designated heritage assets.
- 7.8.47 These include settings impacts on a single scheduled monument located within the Scheme boundary of Sunnica East Site B, although outside the footprint of the physical impact, along with a further scheduled monument immediately adjacent to the Scheme boundary of Sunnica West Site A. These are both of **high value**, and comprise the bowl barrow on Chalk Hill, approximately 380m west of the Chalk Hill cottages (NHLE 1018097), which will likely be subject to a **minor adverse effect**, and four bowl barrows north of the A11/A14 Junction, part of the Chippenham Barrow Cemetery, (NHLE 1015246), which will likely be subject to a **major adverse effect**.
- 7.8.48 A combined effect has also been identified on Freckenham Conservation Area. The setting of the conservation area will be affected by the proposed development of Sunnica East Site A and Sunnica East Site B. The presence of both Sites will affect a larger section of the asset's setting; however the effect remains **minor adverse**.
- 7.8.49 Snailwell Conservation Area will be impacted by both Sunnica West Site A and B. The development of both sites will erode more of the assets agricultural setting. The Scheme will introduce infrastructure elements in the setting of this asset that are likely to affect the ability to understand and appreciate the asset as a rural settlement. This is significantly reduced at Sunnica East Site B due to the introduction of native grassland planting; however, there remains a cumulative impact on setting. This is not considered to raise the impacts beyond the **low** level reported above, resulting in a **minor adverse** effect on an asset of **medium value**.
- 7.8.50 Isolated farm buildings dispersed within the study area are also likely to experience adverse effects due to the construction of the Scheme. These assets include Park Farmhouse (Grade II, NHLE 1162059) and the Phantom Cottage (Grade II, NHLE 1126385), to the west of Chippenham

Park. The rural setting of these assets is going to change due to the construction of the Scheme within the wider landscape. The impact of the development of Sunnica West A in isolation is unlikely to have an adverse effect; however, in combination with Sunnica West Site B there is likely to be a **low** magnitude of impact, resulting in a **minor adverse effect** on the significance of these assets of **medium value**.

- 7.8.51 The asset which will be most affected by the combined effect of the Scheme on the Sunnica East Sites A and B is the Chippenham Hall RPG, due to changes on a greater extent of its setting. It is not considered that this raises the impact beyond the medium magnitude reported in relation to Sunnica East Site A; however, it is considered to be an increase in erosion of the significance of the asset. The resulting effect is **moderate adverse effect** on this asset of **medium value**.

Non-designated Assets

- 7.8.52 No combined effects to non-designated heritage assets are anticipated as a result of the construction of the Scheme across the various Sites.

Grid Connection Route A

Designated Assets

- 7.8.53 It is not anticipated that there will be any physical impact upon any designated heritage assets (including scheduled monuments) during construction.
- 7.8.54 There will be no permanent impacts as a result of the construction of the Grid Connection Route A. It is likely that there will be some temporary minimal disruption on the setting of some assets during the construction of the Grid Connect Route A. However, this is unlikely to affect the significance of any designated heritage assets, resulting in **no impact**.

Non-designated Assets

- 7.8.55 The following table details the construction effects to non-designated heritage assets at the Grid Connection Route A.
- 7.8.56 Overall, the effects to heritage assets are **minor adverse**. Further information regarding the character and date of the archaeological remains will be obtained through suitable archaeological works with appropriate archaeological mitigation proposed following the works (if warranted).

Table 7-15: Summary of Magnitude of Impact and Significance of Effect for Sunnica Grid Connection Route A

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
MCB8994	Chippenham Park	Low	Within Scheme Boundary for Grid Connection Route A, evidence no longer extant	Very low	Minor	No

MCB15150	RAF Snailwell. WW2 airfield	Low	Within Scheme Boundary for Grid Connection Route A, evidence no longer extant	Very low	Minor	No
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Grid Connection Route B

Designated Assets

- 7.8.57 It is not anticipated that there will be any physical impact upon any designated heritage assets (including scheduled monuments) during construction of the Grid Connection Route B.
- 7.8.58 There will be no permanent impacts on any designated heritage assets as a result of the construction of the Grid Connection Route B. It is likely that there will be some temporary minimal disruption on the setting of some assets during the construction of the Grid Connect Route B; however, this is unlikely to affect the significance of any designated heritage assets resulting in **no impact**.
- 7.8.59 A scheduled monument, comprising a preserved medieval moated site (NHLE 1003800) located east of St Nicholas Church, Landwade, is recorded approximately 1.3km to the west of Sunnica West Site B and approximately 1km to the south of Grid Connection Route B. The asset is of **high value** due to its scheduled status and the information it holds regarding rural medieval settlement and manorial practice in East Anglia. There will be no permanent impact upon the setting of the asset from the Grid Connection (given the buried nature of the Scheme) and the asset is located a considerable distance to the west of Sunnica West Site B. The asset is well screened by vegetation at its eastern boundary, along with the railway line and industrial buildings located to the east of this. As such, it is not considered that the Sunnica West Site B development will share any intervisibility with the asset, or impact upon the character of the rural landscape which forms the setting of the asset. As such, it is not considered that the development of the Scheme will result in any change to the setting or character of the asset.

Non-designated Assets

- 7.8.60 The following table details the construction effects to non-designated heritage assets at the Grid Connection Route B.
- 7.8.61 Overall, the effects to non-designated heritage assets are **minor adverse** and detailed within the table below. Further information regarding the character and date of the archaeological remains will be obtained through suitable archaeological works with appropriate archaeological mitigation proposed following the works (if warranted).

Table 7-16: Summary of Magnitude of Impact and Significance of Effect for Sunnica Grid Connection Route B

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
NHLE 1003800	Medieval moated site	High	Within 1km study area of Grid Connection Route B	No change	No change	No
MCB8994	Chippenham Park	Medium	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Very low	Minor	No
MCB16948	Prehistoric remains, Fordham Bypass	Medium	Within an area of cable route in the Scheme, asset no longer extant	Very low	Minor	No
MCB14997	Prehistoric features, Fordham Bypass Site 1	Medium	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Very low	Minor	No
MCB16947	Prehistoric and Roman remains, Fordham Bypass	Medium	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Very low	Minor	No
MCB16946	Roman to Medieval remains, Fordham Bypass	Low	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Very low	Minor	No
MCB8084	Ridge and furrow, Burwell	Low	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Very low	Minor	No
MCB8994	Chippenham Park	Low	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Very low	Minor	No
MCB14998	Post-medieval enclosure,	Low	Within Scheme Boundary for Grid Connection	Very low	Minor	No

Asset reference number	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact (adverse)	Effect Category (adverse)	Significant effect
	Fordham Bypass Site 2		Route B, asset no longer extant			
MCB13044	Boundary, Fordham	Medium	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Very low	Minor	No

Burwell National Grid Substation Extension

- 7.8.62 There are currently three options under consideration for the Burwell Substation, the preferred option is within National Grid landownership to the south east of the Burwell substation. The alternative substations are located to the north east and north west respectively

Designated Assets

- 7.8.63 It is not anticipated that there will be any physical impact upon any designated heritage assets (including scheduled monuments) during construction of the Burwell National Grid Substation Extension.
- 7.8.64 There will be no permanent impacts as a result of the construction of the Burwell National Grid Substation Extension. It is likely that there will be some temporary minimal disruption on the setting of some assets during the construction of the Burwell National Grid Substation Extension; however, this is unlikely to affect the significance of any designated heritage assets, resulting in no impact.

Non-designated assets

- 7.8.65 As there are no heritage assets in this area within the footprint of the substation extension, there are no direct impacts to heritage anticipated from this aspect of the Scheme. Further information regarding the presence or absence of archaeological remains will be obtained through trial trench evaluation works with appropriate archaeological mitigation proposed following these works (if warranted).

Opening (2025)

- 7.8.66 Impacts at opening include those associated with the ongoing operation of the development. This potentially includes impacts from security lighting, operational noise and associated traffic as well as a result from glint and glare. Further assessment of these elements will be undertaken in the ES.

15 Years Post Opening (2040)

- 7.8.67 Landscape mitigation will have matured at 15 years post opening. The incorporation of landscape planting as screening is limited and has been used largely to enhance existing screening and/ or mitigate against future loss; therefore, the effects reported above will largely remain. One exception to this is Snailwell Conservation Area where planting has been

incorporated to screen parts of the scheme from the asset. The extent of this screening is limited; therefore, it is considered that the overall impact will remain **low** on an asset of **medium value**. This will result in a **minor adverse effect**.

- 7.8.68 It is anticipated that planting along the south drive of the Chippenham Park RPG will have matured by 2040. While the planting will restore part of the drive and provide some screening to the development, it is not anticipated that it will reduce the impact on the parkland setting. As a result, the Scheme is likely to have a **medium magnitude** of impact, resulting in a **moderate adverse effect** on this asset of **medium value**.

Decommissioning (2065)

- 7.8.69 Following the decommissioning of the Scheme in 2065, it is considered that the Scheme, including the solar panels and associated infrastructure will be removed in accordance with the relevant statutory process at that time. It is expected that the selected method of decommissioning would have due regard to health and safety, environmental impact and benefits, and economic aspects which will be set out in a Decommissioning Environmental Management Plan, which will be secured through a DCO Requirement. Any future maintenance, decommissioning and / or reinstatement works would be subject to prevailing legislation, guidance and permitting regimes. Landscape restoration and remediation to suitable surfaces would be undertaken. This will result in the restoration of the rural landscape. A well-designed decommissioning scheme would not have any impact beyond the already-disturbed footprint of the Scheme; therefore, it is not anticipated that decommissioning activities would have a direct physical impact upon archaeological remains.
- 7.8.70 While there is the potential for temporary setting impacts during the removal of the solar arrays and infrastructure, it is not anticipated that these will have no more than a negligible effect. The long-term adverse effects from the Sites will cease to exist and the setting of the scheduled monuments, RPG, listed buildings and conservation areas within 1km of the Scheme will be restored to existing. This will have a neutral impact on the significance of these assets.

7.9 Additional Mitigation and Enhancement Measures

- 7.9.1 Where feasible, archaeological assets which will experience significant adverse effects arising from the construction of the Scheme will be preserved in situ, following the NPPF requirement *“to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible”* (Ref. 7-11, para. 199). This would involve the embedded design measures, including:
- Avoiding areas of significant archaeological potential;
 - Minimising vegetation clearance, land disturbance and land take and consequent loss of archaeological remains; and
 - Installing buffer zones around any sensitive areas during construction.

7.9.2 Where no appropriate design mitigation can be applied to the management of the archaeological resource, additional mitigation measures will be applied. It is proposed that:

- A programme of archaeological fieldwork and recording will be implemented for archaeological remains within the footprint of the Scheme.
- Archaeological mitigation fieldwork will be undertaken prior to construction works.
- Archaeological mitigation requirements will be set out in the Framework CEMP submitted as part of the DCO application.
- The contractor appointed to undertake the construction works will produce a detailed CEMP (based on and incorporating the requirements of the Framework CEMP, as required by the Framework CEMP itself) and Heritage Management Plans (HMPs; required by the Framework CEMP) that set out how the requirements for archaeological mitigation at each stage will be implemented.

7.9.3 A programme of pre-submission evaluation trenching based on the results of the geophysical survey (Ref. 7-20) will be carried out prior to ES submission to date and characterise archaeological assets likely to be impacted by the Scheme and to ground truth the geophysical survey results. The transcription of aerial photograph and LiDAR data will also be carried out prior to ES submission and cross-referenced with the results of the geophysical survey and trenching. The results of these investigations will feed into a mitigation strategy which will be inbuilt to the design of the Scheme to minimise impacts on archaeological heritage assets and their setting as far as possible. An appropriate archaeological mitigation strategy for the identified impacts from construction and operation upon heritage assets, will be agreed (where possible) with the Cambridgeshire and Suffolk Archaeology Services, the Conservation Officers from the ECDC and WSC and, where required, Historic England.

7.9.4 An Overarching WSI detailing proposed mitigation works will be submitted for review to Historic England, CCC and SCC following receipt of the results of the evaluation trenching works. Once agreed, this document would establish the objectives for the historic environment works and set out the mechanisms for the appointed archaeological contractor to design the investigation, undertake evaluation, analysis, reporting and deposit the archive prior to construction.

7.10 Residual Effects

7.10.1 This section summarises the residual effects of the Scheme on cultural heritage following the implementation of mitigation outlined in Section 7.9.

7.10.2 Significant residual effects are defined as moderate or major. A significant effect has been identified, being a moderate adverse effect, on Chippenham Registered Park and Garden. The RPG will experience adverse effects as a result of the development of the Sunnica West A Scheme, and combined effects from Sunnica West B. A significant effect has also been identified for the four bowl barrows north of the A11/A14

junction, which forms part of the Chippenham barrow cemetery in Sunnica West Site A.

- 7.10.3 Significant effects have also been identified for non-designated assets (both recorded within the HER and identified through the geophysical survey) within Sunnica East A, Sunnica East B and Sunnica West A.
- 7.10.4 A formal assessment of harm will be undertaken as part of the ES.
- 7.10.5 As noted in Section 7.3 above, this chapter forms a preliminary assessment which has been based on available information at the time of preparing the PEI Report, and represents a realistic worst case and precautionary approach based on the Scheme parameters as outlined in the Parameter Plans presented in Figure 3-1 and 3-2 and the maximum likely extents of land take required for its construction and operation shown on those plans. The assessment will be developed and refined following the statutory consultation and as additional information becomes available, including visualisations and the results of trial trenching data, with a final assessment presented within the ES.
- 7.10.6 Table 7-17 outlines the likely residual construction effects after mitigation on heritage assets.

Table 7-17: Summary of Residual Effects (Construction to completion)

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
Sunnica East A					
MSF216	Microlith found with burial at Chalk Hill Round Barrow	Within the footprint of the solar arrays, asset no longer within Scheduled Monument bordering the Site	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MSF215 NHLE 1018097	Beacon Hill, Chalk Hill Round Barrow – scheduled monument	Extant round barrow borders Scheme Boundary for Sunnica East, setting is directly impacted by solar panels	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MSF14615	Roman artefact scatter, North Street (comprising artefact scatter and metal detected finds)	Within Scheme Boundary Scheme Boundary for Sunnica East, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MSF22165	North Street (track) (field walked and metal detected finds of upper Palaeolithic long blades, Bronze Age worked flints and Bronze Age bronze awl.	Within Scheme Boundary Scheme Boundary for Sunnica East, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MSF97820	Fort William Plantation. Roman site identified	Within the footprint of the solar	Minor adverse	To be confirmed through agreed archaeological	Minor adverse

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
	through metal detecting	arrays, asset no longer extant	Not significant	mitigation strategy	Not significant
MSF11615	Human bones, remains of two individuals found during construction work	Found bordering the Scheme Boundary for Sunnica East, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MSF10199	Single ring ditch, (approximately 30m diameter) identified from on 1956 aerial photograph	Directly impacted as it is within the footprint of the solar arrays	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
	Freckenham Conservation Area	The Scheme will be visible in views to the north of the settlement. This will affect the appreciation of the settlement within its rural landscape.	Minor adverse Not significant	-	Minor adverse Not significant
	Isleham Conservation Area	Impacts resulting from proximity of Scheme	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1194463	Popes Farmhouse	Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1037558	Bargate Farmhouse	Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected	Minor adverse Not significant	-	Minor adverse Not significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
Sunnica East Site B					
NHLE 1037585	Church of All Saints, Worlington	Scheme will be visible within the asset's setting	Minor adverse Not significant	-	Minor adverse Not significant
	Freckenham Conservation Area	The Scheme will be visible in views to the north of the settlement. This will affect the appreciation of the settlement within its rural landscape.	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1037602	Grange Farmhouse	Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1037604	The Manor	Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1126373	Badlingham Manor	<i>The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting</i>	Negligible Not significant	-	Negligible Not significant
NHLE 1126374	The Cottage	<i>The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting</i>	Negligible Not significant	-	Negligible Not significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
<i>Sunnica West Site A</i>					
NHLE 1015243; 1015244 and 1015245	Three scheduled barrows forming part of the Chippenham barrow group	Within 1km study area	Minor adverse Not significant	To be confirmed	Minor adverse Not significant
NHLE 1015011	Howe Hill Bowl Barrow	Within 1km study area	No change	Not required	No change
NHLE 1015246	Four bowl barrows north of the A11/A14 junction, part of the Chippenham barrow cemetery	Within Scheme boundary although not within developable area. The Scheme will change the character of the landscape immediately to the north-west of the barrow cemetery, and impact upon the setting of the monument; however, there will be no direct physical impact on the barrow cemetery	Major adverse Significant	To be confirmed	Major adverse Significant
NHLE 1126383	Waterhall Farmhouse	Introduction of new structures in agricultural land that was historically associated with the asset	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1000615	Chippenham RPG	The Scheme will change the character of the wider parkland which forms the setting of the RPG	Moderate adverse Significant	-	Moderate adverse Significant
NHLE 1126376	Triumphal arches	Affecting views from this asset to the surrounding countryside and change its setting	Moderate adverse Significant	-	Moderate adverse Significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
	Snailwell Conservation Area	The Scheme will introduce infrastructure elements in the setting of this asset that are likely to affect the ability to understand and appreciate the asset as a rural settlement	Minor adverse Not significant	-	Minor adverse Not significant
	Freckenham Conservation Area	The Scheme will be visible in views to the north of the settlement. This will affect the appreciation of the settlement within its rural landscape.	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1037602	Grange Farmhouse	Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected	Minor adverse Not significant	-	Minor adverse Not significant
NHLE 1037604	The Manor	Part of the rural setting of the assets, including views of the assets towards the Scheme, will be adversely affected	Negligible Not significant	-	Negligible Not significant
NHLE 1126373	Badlingham Manor	<i>The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting</i>	Negligible Not significant	-	Negligible Not significant
NHLE 1126374	The Cottage	<i>The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting</i>	Negligible Not significant	-	Negligible Not significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
MCB9033	Bronze Age material recovered including burnt flint. Some gravel, also dark area.	Within Scheme Boundary for Sunnica West Site B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB9032	Iron Age and Roman find scatter, Snailwell	Within the footprint of the solar arrays, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB8998	Iron Age and Roman pottery scatter, Snailwell Fen	Within Scheme Boundary for Sunnica West Site B	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
MCB8999	Roman bead, brooch, coins and sherds, Snailwell Fen	Within Scheme Boundary for Sunnica West Site B	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
MCB9001	Rectilinear enclosure cropmarks, Snailwell	Within Scheme Boundary for Sunnica West Site B, asset not investigated	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
MCB9000	Gardens and park at Fordham Abbey	Within Scheme Boundary for Sunnica West Site B, evidence no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB5260	Bronze Age barrow. Surface find. Damaged. 43.5m diameter and approximately 0.9m high. Some flints but no	Within Scheme Boundary for Sunnica West Site B, only surface evidence remains	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
	fire-cracked material.				
MCB8995	Chippenham Barrow Cemetery (scheduled monument)	Within Scheme Boundary for Sunnica West Site B	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
MCB14706	Roman pottery spread, Chippenham	Within the footprint of the solar arrays, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB12268	Furlong boundary, Chippenham	Within the footprint of the solar arrays	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
MCB12221	Furlong boundaries, Snailwell	Within the footprint of the solar arrays	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
MCB8994	Chippenham Park	Within Scheme Boundary for Sunnica West Site B, evidence no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB15150	RAF Snailwell. WW2 airfield	Within Scheme Boundary for Sunnica West Site B, evidence no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB10819	Enclosures, Snailwell	Within the footprint of the solar arrays, possibly of natural origin	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
MCB9547	Prehistoric settlement site, Kennett	Within the footprint of the solar arrays	Moderate adverse Significant	To be confirmed through agreed archaeological mitigation strategy	Moderate adverse Significant
MCB23370	Sand Pit, Kennett. Illustrated on 2nd edition Ordnance Survey map dated to 1901	Within the footprint of the solar arrays, evidence no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
<i>Sunnica West Site B</i>					
NHLE 1006868	Roman Villa south of Snailwell Fen	Within 1km study area	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
NHLE 1000615	Chippenham RPG	the Scheme will introduce new infrastructure elements within the wider parkland. Reduced by the incorporation of grassland mitigation.	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
	Snailwell Conservation Area	will introduce modern elements within the setting of this asset. Reduced by the incorporation of grassland mitigation.	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
NHLE 1162059	Park Farmhouse	Changes to rural setting	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
NHLE 1126385	Phantom Cottage	Changes to rural setting	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB9356	Bronze Age material recovered including burnt flint. Some gravel, also dark area	Within the footprint of the solar arrays, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB9357	Iron Age and Roman find scatter, Snailwell	Within the footprint of the solar arrays, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB9358	Iron Age and Roman pottery scatter, Snailwell Fen	Within the footprint of the solar arrays, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB8981	Roman bead, brooch, coins and sherds, Snailwell Fen	Within the footprint of the solar arrays, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB20063	Rectilinear enclosure cropmarks, Snailwell	Within the footprint of the solar arrays, asset not investigated	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
Grid Connection Route A					
MCB8994	Chippenham Park	Within Scheme Boundary for Grid Connection Route A, evidence no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
MCB15150	RAF Snailwell. WW2 airfield	Within Scheme Boundary for Grid Connection Route A, evidence no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
Grid Connection Route B					
NHLE 1003800	Medieval moated site	Within 1km study area	No change	Not required	No change
MCB8994	Chippenham Park	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB16948	Prehistoric remains, Fordham Bypass	Within an area of cable route in the Scheme, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB14997	Prehistoric features, Fordham Bypass Site 1	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB16947	Prehistoric and Roman remains, Fordham Bypass	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB16946	Roman to Medieval remains, Fordham Bypass	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB8084	Ridge and furrow,	Within Scheme Boundary for Grid Connection Route B, asset no longer	Minor adverse	To be confirmed through agreed archaeological	Minor adverse

Asset reference number	Description	Description of impact	Significance of effect without Additional mitigation	Additional Mitigation/Enhancement measure	Residual effect after mitigation
	Burwell	extant	Not significant	mitigation strategy	Not significant
MCB8994	Chippenham Park	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB14998	Post-medieval enclosure, Fordham Bypass Site 2	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant
MCB13044	Boundary, Fordham	Within Scheme Boundary for Grid Connection Route B, asset no longer extant	Minor adverse Not significant	To be confirmed through agreed archaeological mitigation strategy	Minor adverse Not significant

7.11 Cumulative Effects

- 7.11.1 Physical effects on heritage assets would be on highly localised features, wholly within the Scheme, upon where there would be no cumulative effects from other developments.
- 7.11.2 Given the intervening distance and nature of the identified schemes, there would be no additional cumulative effects on the setting of the archaeological remains, historic buildings or historic landscapes within the Site's zone of influence additional to those already identified for the Scheme in isolation.
- 7.11.3 In conclusion, therefore, no cumulative impacts upon the cultural heritage resource (either archaeological or built heritage) are envisaged.

7.12 References

- Ref. 7-1 HMSO (2011) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017). Available at: http://www.legislation.gov.uk/ukxi/2017/572/pdfs/ukxi_20170572_en.pdf and [Date Accessed: 19/11/2019].
- Ref. 7-2 HMSO (2010) Infrastructure Planning (Decisions) Regulations 2010. Available at: http://www.legislation.gov.uk/ukxi/2010/305/pdfs/ukxi_20100305_en.pdf [Date Accessed 19/11/2019].
- Ref. 7-3 HMSO (2008) The Planning Act 2008. Available at: https://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga_20080029_en.pdf [Date Accessed: 19/11/2019].
- Ref. 7-4 HMSO (1990) Planning (listed Buildings and Conservation Areas) Act 1990. Available at: <http://www.legislation.gov.uk/ukpga/1990/9/contents> [Date Accessed 19/11/2019].
- Ref. 7-5 HMSO (1979); Ancient Monuments and Archaeological Areas Act 1979. Available at: http://www.legislation.gov.uk/ukpga/1979/46/pdfs/ukpga_19790046_en.pdf [Date Accessed: 19/11/2019].
- Ref. 7-6 HMSO (1983) National Heritage Act 1983. Available at: http://www.legislation.gov.uk/ukpga/1983/47/pdfs/ukpga_19830047_en.pdf [Date Accessed: 19/11/2019].
- Ref. 7-7 HMSO (2002) National Heritage Act 2002. Available at: http://www.legislation.gov.uk/ukpga/2002/14/pdfs/ukpga_20020014_en.pdf [Date Accessed: 19/11/2019]
- Ref. 7-8 DECC (2011) National Policy Statement for Energy (EN-1). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf [Date Accessed: 19/11/2019].
- Ref. 7-9 DECC (2011) National Policy Statement for Renewable Energy Infrastructure (EN-3). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/37048/1940-nps-renewable-energy-en3.pdf [Date Accessed: 11/03/2019].
- Ref. 7-10 DECC (2011) National Policy Statement for Electricity Networks Infrastructure (EN-5). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/37050/1942-national-policy-statement-electricity-networks.pdf [Date Accessed: 19/11/2019].
- Ref. 7-11 Ministry of Housing, Communities and Local Government (MHCLG) (2019) National Planning Policy Framework. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf [Date Accessed: 19/11/2019].
- Ref. 7-12 Ministry of Housing, Communities and Local Government (2019) Planning Practice Guidance. Available at:

- <https://www.gov.uk/government/collections/planning-practice-gance> [Date Accessed 19/11/2019].
- Ref. 7-13 Historic England (2015) Historic Environment Good Practice Advice in Planning Note 2. Managing Significance in Decision Taking in the Historic Environment. Available at: <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-indecision-taking/gpa2/> [Date Accessed: 19/11/2019].
- Ref. 7-14 Historic England (2017) Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets (2nd edition). Available at: <https://historicengland.org.uk/imagesbooks/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/> [Date Accessed: 19/11/2019].
- Ref. 7-15 East Cambridgeshire District Council (2015) Local Plan. Available at: https://www.eastcambs.gov.uk/sites/default/files/Local%20Plan%20April%202015%20%20front%20cover%20and%20inside%20front%20cover_0.pdf [Date Accessed: 19/11/2019]
- Ref. 7-16 East Cambridgeshire District Council (2014) Supplementary Planning Document Renewable Energy Development (Commercial Scale) October 2014, Available at: https://www.eastcambs.gov.uk/sites/default/files/Renewable%20Energy%20OSPD%20Final_0.pdf [Date Accessed: 19/11/2019].
- Ref. 7-17 Forest Heath District Council (2010) Forest Heath Local Development Framework – Core Strategy Development Plan Document 2001-2026 (with housing projected to 2031) Adopted May 2010. Available at: https://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/FHCoreStrategyDevelopmentPlanDocument20012026withhousingprojectedto2031AdoptedMay_2010.pdf [Date Accessed: 19/11/2019].
- Ref. 7-18 Forest Heath and St Edmundsbury Councils (2015) Forest Heath and St Edmundsbury Local Plan: Joint Development Management Policies Document (February 2015). Available at: https://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/JDMPDFINAL-for-website-R.pdf [Date Accessed: 19/11/2019].
- Ref. 7-19 Chartered Institute for Archaeologists (2014) *Standard and Guidance for Historic Environment and Desk-Based Assessment*.
- Ref. 7-20 Magnitude Surveys 2020. Geophysical Survey Report of Sunnica Energy Farm Mildenhall, Suffolk. Magnitude Surveys unpublished report MSTL551.
- Ref 7-21 Historic England Advice Note 12 Statements of Heritage Significance: Analysing Significance in Heritage Assets (2019) Available at <https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/>

