**Historic Environment Desk-Based Assessment** 

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#### **SUMMARY**

Oxford Archaeology (OA) has been commissioned by Statera Energy to update the historic environment desk-based assessment for Culham Battery Storage Site, Oxfordshire.

The original report was commissioned by Statera Energy and was submitted as a part of a planning application (P24/S1498/FUL). The application was refused by the South Oxfordshire District Council (SODC), as the scheme was considered to have a significant adverse impact upon the condition and setting of the Grade I registered Nuneham Courtenay Park. The design and layout of the proposed development has subsequently been amended in response to the comments from the SODC and Historic England, as set out in reason for refusal 3 (setting (SODC Decision Notice; P24/S1498/FUL). This report provides a summary of the potential historic environment effects of the refused Application Scheme, as well as a full assessment of the potential effects of the resulting from the revised Appeal Scheme.

The site extends into the south-west part of the Nuneham Courtenay Registered Park and Garden and lies immediately adjacent to Nuneham Courtenay Conservation Area. As part of the proposed development landscaping works would be carried out in the southern part of the Registered Park and Garden – in the Appeal Scheme, these works have been revised in occurrence with comments provided by Historic England and SODC to better respond to the original character of the Nuneham Courtenay Registered Park and Garden. Tree planting in this area would mirror planting shown on 18th-century maps of the park and the proposed landscaping would help to reinstate the former parkland character of this area. These works would enhance the character of this part of the Registered Park and Garden.

In the Appeal Scheme, a battery storage site and connection tower would be constructed in the southern part of the site, adjacent to the Registered Park and Garden and conservation area. In the Application Scheme, the connection tower would be placed within the Registered Park and Garden. It would be discreetly located and seen in the context of an existing high-voltage overhead transmission line which passes through the Registered Park and Garden. The development would industrialise the green space separating these assets from Culham Science Centre and would be visible in views looking out from the edge of these assets. As the new development would be experienced against the backdrop of an existing industrial complex (the Culham Science Centre) it would not significantly alter the character of the views looking out from the Registered Park and Garden and conservation area. The proposed battery storage site) would therefore have a minor adverse impact upon the setting of these assets resulting from the industrialisation of the green space separating them from the Culham Science Centre. The visual impact of the proposed development would be reduced by the proposed landscaping along the edge of the



Registered Park and Garden which would help to screen views looking out from the edge of the Registered Park and Garden and conservation area.

During construction, the introduction of additional noise, dust and visual disturbance into the environs of the Registered Park and Garden and the conservation area will have a moderate adverse impact upon the setting of these assets. This impact will be temporary and short term.



# 1 INTRODUCTION

- 1.1.1 Oxford Archaeology (OA) has been commissioned by Statera Energy to update a historic environment desk-based assessment produced for the proposed Culham Battery Storage Site in Oxfordshire. The original assessment was produced in March 2024 and was submitted as part of planning application P24/S1498/FUL.
- 1.1.2 The Culham Battery Storage Site, henceforth known as 'the site', is centred on SU529965, and its location is shown on Figure 1.
- 1.1.3 This report has been prepared in accordance with National Planning Policy (2021) and the following good practice and guidance documents:
  - Chartered Institute for Archaeologists (CIfA) Standards and Guidance for Historic Environment Desk-based Assessments (2020);
  - Historic England Good Practice Advice in Planning 1-3 (2015a; 2015b; 2017);
  - Historic England Advice Note 12 (2019); and
  - Planning Practice Guidance (2024) Historic Environment, published by the Ministry of Housing, Communities and Local Government.

# 2 PROPOSED DEVELOPMENT

2.1.1 The proposed development entails the construction of a Battery Energy Storage System (BESS), comprising a 500-megawatt (MW) battery storage facility with associated infrastructure, access and landscaping, with a connection into the Culham Jet National Grid substation. A plan of the development is shown on Figures 1 and 24.

# 2.2 Other relevant developments (STRAT9)

2.2.1 While not a part of the proposed scheme, the areas west of the site are scheduled to be developed as a part of a South Oxfordshire Local Plan Housing Allocation: 'STRAT9'. While exact specifications for this allocation have not-yet been finalised, it is scheduled to allow for the provision of approximately 3500 homes and employment space, and notably, will result in the widespread urbanisation of the areas west of the site.

# **3 PROJECT BACKGROUND**

3.1.1 Proposals for a Battery Energy Storage System within the site were submitted to the local planning authority as part of planning application ref. P24/S1498/FUL – henceforth referred to as the 'refused Application Scheme' The refused Application Scheme was refused by the South Oxfordshire District Council (SODC) for eight reasons. Reason for refusal 3 referred to impacts upon the Registered Park and Garden at Nuneham Courtenay. The proposals for the development have since been revised to address the concerns raised by the SODC. The revised scheme will henceforth be referred to as the 'Appeal Scheme'.



- 3.1.2 Since the submission of the refused Application Scheme, a programme of archaeological works (including evaluation trenching) has taken place within the site, the results of which have increased understanding of the archaeological potential of the site and its environs (OA 2025). This report has been supplied to the Oxfordshire County Council (OCC) Planning Archaeologist for review and is currently undergoing amendment. The process of evaluation has clarified the archaeological potential of the site.
- 3.1.3 This report concentrates upon the effects the scheme will have upon nonarchaeological heritage assets. Discussion of the archaeological effects of the scheme is dealt with within the evaluation report (OA 2025).

#### 3.2 The refused Application Scheme

- 3.2.1 The refused Application Scheme was originally submitted to the SODC as part of planning application ref. P24/S1498/FUL. This application was refused under delegated powers on 8 August 2024, in part, due to heritage concerns – specifically, that development would result in a significant adverse impact upon the Grade I registered Nuneham Courtenay Park and its setting (SODC Decision Notice).
- 3.2.2 These heritage concerns are laid out in 'reason for refusal (RFR); point 3) of the DODC Decision notice, which states:

"The proposed development of an industrial nature would encroach into the Nuneham Courtenay Grade I Registered Park and Garden (RPG), a highly significant C18 parkland landscape, which contains several listed buildings and structures. The development will result in significant adverse impacts to the designated heritage asset, and the setting of the RPG. The proposed landscape mitigation fails to respect the character of the RPG and its setting and would result in further harm. The harm to the heritage assets considerably outweighs the benefits of the proposed development and the proposal is therefore contrary to the NPPF and Policies ENV6 and ENV10 of the South Oxfordshire Local Plan 2035.

Further, this proposal, in addition to the development on allocated sites STRAT8 and STRAT9, will create an increased cumulative impact harmful to the setting of the designated Registered Park and Garden, contrary to Policies ENV6 and ENV10 of the South Oxfordshire Local Plan 2035, the NPPF." – (RFR3 – SODC Decision Notice).

- 3.2.3 The SODC Decision Notice (with regards to heritage concerns) was informed by the Historic England (HE) response. In their response, Historic England did not object to the principle of utilising the area for electricity infrastructure, stating that 'There is existing electricity infrastructure in this area which we understand makes it a suitable place for more'. However, they determined that the refused Application Scheme would result in 'clear harm to a highly significant registered parkland [Nuneham Courtenay Registered Park and Garden]. Historic England identified the following impacts resulting from the scheme:
  - i. The loss of undeveloped land between the designated parkland and the Culham Science Centre: The space between the park and the



Culham Science Centre allows the park to remain a separate entity that isn't encroached upon by industrial development. This matters because it allows for a degree of appreciation of the parkland as a separate, private estate. The proposals would further erode the remaining vestiges of the past layout of the estate (where it exists outside of the registered area), which still contributes to the significance and our understanding of it.

- ii. Unsympathetic and harmful landscaping along with the construction of a 14m high connection tower within the Registered Park and Garden: The proposed position of these features [the connection tower and the artificial bunds located within areas of tree planting] would to all intents permanently remove the chance of meaningful restoration of lost planting in these areas.
- 3.2.4 The Historic England response set out the following recommendations for reducing harm to the registered parkland and its setting:
  - i. Could the connection tower be relocated outside of the registered area or could it be lowered in height to reduce the harm it causes the parkland.
  - ii. Could the proposed features be sunken into a modified topography, and when combined with better planting could help reduce visibility and harm.
- 3.2.5 The Historic England response also identified potential heritage benefits that could arise from the appropriate restoration of the southern part of the park, stating that' A key feature of restoration in the southern portion of the park would be the reintroduction of a naturalistic shelter belt in its original location and supplementary or restoration planting of the woodland pasture (at least for landscaping to demonstrably respond to Brownian naturalistic planting principles and the restoration of features where possible). A longstanding aspiration for the burying of the electricity lines and removal of pylons seen in views from All Saints (to the north) would be a considerable heritage benefit'.

#### The Appeal Scheme

- 3.2.6 In the Appeal Scheme the following changes have been made to address RFR 3 and the comments from SODC and Historic England:
  - i. The connection tower has been relocated to the main battery storage compound (outside the registered parkland); and
  - ii. The landscaping proposals have been revised to remove the previously proposed artificial bunds, to extend woodland planting further south along the western boundary of the site, and to remove the proposed scrubland from around the previous connection tower.
- 3.2.7 The Appeal Scheme retains the proposed inclusion of a naturalist tree belt along the former park boundary as well as areas of tree planting which better reflect the original character of the park in this area. However the proposed areas of tree planting will no longer be situated on artificial bunds



and the shape of the proposed tree belt has been altered to better match the historic woodland layout.

# 4 LOCATION, TOPOGRAPHY AND GEOLOGY

- 4.1.1 The site is located to the north of Thame Lane and the Culham Science Centre, within the parishes of Culham and Nuneham Courtenay, and within the administrative district of South Oxfordshire. The majority of the site comprises six agricultural fields located to the north of the Culham Science Centre. The eastern part of the site includes the access road leading to the Science Centre and an undeveloped green space on the northern edge of the Science Centre complex. The site is bounded by agricultural land to the north and east, Culham Science Centre to the south and the Cherwell Valley railway line to the west.
- 4.1.2 The site is situated on a low-lying and fairly flat area of the Thames floodplain. The majority of the site is situated at a height of 65m above Ordnance Datum (aOD), rising to a maximum height of 69m aOD in the north-east.
- 4.1.3 The site lies over a bedrock constituted of sedimentary Lower Greensand sandstone, formed between 126.3 and 100.5 million years ago during the Cretaceous period. There is no recorded superficial geology (BGS nd.).

# 5 AIMS AND OBJECTIVES

- 5.1.1 The purpose of this desk-based assessment is to reach, as far as reasonably possible from existing records and observations, an understanding of the historic environment within and surrounding the site in order to:
  - provide an assessment of the potential for heritage assets to survive within the site
  - provide an assessment of the significance of the known or predicted heritage assets, considering their archaeological, historic, architectural and artistic interest
  - assess the likely impacts of previous development upon the survival of any archaeological remains
  - assess the impact of the proposed development or other land use changes upon the significance of the heritage assets and their settings
  - provide strategies for further evaluation whether or not intrusive, where the nature, extent or significance of the resource is not sufficiently well defined, and
  - provide strategies to conserve the significance of heritage assets, and their settings.



# 6 PLANNING BACKGROUND

#### 6.1 Planning (Listed Buildings and Conservation Areas) Act 1990

- 6.1.1 Works that affect listed buildings or structures and conservation areas are subject to additional controls administered by the Local Planning Authority (LPA) under the Planning (Listed Buildings and Conservation Areas) Act 1990 (amended by the Enterprise and Regulatory Reform Act 2013). Section 66 states that in considering development which affects a listed building or its setting the local planning authority shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. In respect to conservation areas Section 72 states that special attention should be paid to the desirability of preserving or enhancing the character or appearance of that area.
- 6.1.2 Under the terms of the act a listed building may not be demolished, altered or extended in any manner which would affect its character as a building of special architectural or historic interest without Listed Building Consent being granted.
- 6.1.3 There are three grades of listing (in descending order):
  - Grade I: Buildings of exceptional interest;
  - Grade II\*: Particularly important buildings of more than special interest; and
  - Grade II: Buildings of special interest, warranting every effort to preserve.
- 6.1.4 Historic England is a statutory consultee in relation to works affecting Grade I/II\* listed buildings.

#### 6.2 Historic Buildings and Ancient Monuments Act 1953

6.2.1 Historic England is enabled by the Historic Buildings and Ancient Monuments Act 1953 (as amended by the National Heritage Act 1983) to maintain a register of parks, gardens and battlefield sites which appear to Historic England to be of special historic interest. Registration in this way makes the effect of proposed development on the sites and their settings a material consideration. Historic England is a statutory consultee in relation to works affecting Grade I/II\* registered parks and gardens.

#### 6.3 Historic England Register of Parks and Gardens in England

- 6.3.1 The Register of Parks and Gardens of Special Historic Interest in England is maintained by Historic England (formerly English Heritage) and divides the sites into three grade bands, similar to those used for Listed Buildings (see above). This Register was established in 1983, and its emphasis is on 'designed' landscapes, rather than on planting or botanical importance.
- 6.3.2 There are three grades of listing (in descending order):
  - Grade I: Park and Gardens of exceptional interest
  - Grade II\*: Particularly important Park and Gardens of more than special interest; and



• Grade II: Park and Gardens of special interest, warranting every effort to preserve.

6.3.3 The main purpose of the Register is to celebrate designated landscapes of note and encourage appropriate protection. A Registered Park and Garden is not protected by a separate regime, but applications for planning permission will give great weight to their conservation. The National Planning Policy Framework (NPPF) defines them as designated heritage assets and as such their conservation should be an objective of all sustainable development (see below). Substantial harm to or total loss of a Grade II registered Park or Garden should be exceptional and for a Grade II\* or I registered Park and Garden such loss or harm should be wholly exceptional. Local Plan Authorities (LPA) are required to consult Historic England when considering an application which affects a Grade I or II\* registered site and the Garden Trust on all applications affecting registered sites of all grades.

#### 6.4 National Planning Policy

- 6.4.1 Section 16 of National Planning Policy Framework (NPPF) as issued in December 2024 sets out the Government's planning policies in relation to the conservation and enhancement of the historic environment.
- 6.4.2 Paragraph 207 states:

'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.'

6.4.3 Paragraph 208 states:

'Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.'

6.4.4 Paragraph 212 states:

'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm



amounts to substantial harm, total loss or less than substantial harm to its significance.'

Paragraph 213 states:

'Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;

b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II\* listed buildings, grade I and II\* registered parks and gardens, and World Heritage Sites, should be wholly exceptional (non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets).'

6.4.5 Paragraphs 214 states:

'Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

a) the nature of the heritage asset prevents all reasonable uses of the site; and

b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and

c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and

d) the harm or loss is outweighed by the benefit of bringing the site back into use.'

Paragraphs 215 states:

'Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.'

6.4.6 Paragraph 216 states:

'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.'

6.4.7 Paragraph 218 states:



'Local planning authorities should require developers 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 (Copies of evidence should be deposited with the relevant historic environment record, and any archives with a local museum or other public depository). However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.'

#### 6.4.8 Paragraph 219 states:

'Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.'

#### 6.4.9 Paragraph 220 states:

'Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 202 or less than substantial harm under paragraph 201, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole'

# 6.5 Local Planning Policy

#### South Oxfordshire Local Plan (2035)

6.5.1 The south Oxfordshire Local Plan 2035 was adopted in December 2020 and sets out the future for development in South Oxfordshire up to 2035, including regarding the protection and management of the historic environment. Policies considered relevant to this assessment are outlined below:

# 6.5.2 Policy ENV6: Historic Environment

1. Proposals for new development that may affect designated and nondesignated heritage assets should take account of the desirability of sustaining and enhancing the significance of those assets and putting them to viable uses consistent with their conservation. Heritage assets include statutorily designated Scheduled Monuments, Listed Buildings or structures, Conservation Areas, Registered Parks and Gardens, Registered Battlefields, archaeology of national and local interest and non-designated buildings, structures or historic landscapes that contribute to local historic and architectural interest of the district's historic environment, and also includes those heritage assets listed by the Oxfordshire Historic Environmental Record.



2. Proposals for new development should be sensitively designed and should not cause harm to the historic environment. Proposals that have an impact on heritage assets (designated and non-designated) will be supported particularly where they:

*i)* conserve or enhance the significance of the heritage asset and settings. The more important the heritage asset, the greater the weight that will be given to its conservation;

*ii) make a positive contribution to local character and distinctiveness (through high standards of design, reflecting its significance, including through the use of appropriate materials and construction techniques);* 

iii) make a positive contribution towards wider public benefits;

iv) provide a viable future use for a heritage asset that is consistent with the conservation of its significance; and/or

v) protect a heritage asset that is currently at risk.

3. Non-designated heritage assets, where identified through local or neighbourhood plan-making, Conservation Area Appraisal or review or through the planning application process, will be recognised as heritage assets in accordance with national guidance and any local criteria. Development proposals that directly or indirectly affect the significance of a non-designated heritage asset will be determined with regard to the scale of any harm or loss and the significance of the asset.

4. Applicants will be required to describe, in line with best practice and relevant national guidance, the significance of any heritage assets affected including any contribution made by their setting. The level of detail should be proportionate to the asset's importance. In some circumstances further survey, analysis and/or recording will be made a condition of consent.

5. Particular encouragement will be given to schemes that will help secure the long-term conservation of vacant and under-used buildings and bring them back into appropriate use.

6. Alterations to historic buildings, for example to improve energy efficiency, should respect the integrity of the historic environment and the character and significance of the building.

#### 6.5.3 Policy ENV7: Listed Buildings

1. Proposals for development, including change of use, that involve any alteration of, addition to or partial demolition of a listed building or within the curtilage of, or affecting the setting of a listed building will be expected to:

*i)* conserve, enhance or better reveal those elements which contribute to the heritage significance and/or its setting;



ii) respect any features of special architectural or historic interest, including, where relevant, the historic curtilage or context, such as burgage plots, or its value within a group and/or its setting, such as the importance of a street frontage or traditional shopfronts; and

iii) be sympathetic to the listed building and its setting in terms of its siting, size, scale, height, alignment, materials and finishes (including colour and texture), design and form, in order to retain the special interest that justifies its designation through appropriate design, with regard to the South Oxfordshire Design Guide.

2. Development proposals affecting the significance of a listed building or its setting that will lead to substantial harm or total loss of significance will be refused unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that demonstrably outweigh that harm or loss or where the applicant can demonstrate that: i) the nature of the heritage asset prevents all reasonable uses of the site; and ii) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and iii) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and iv) the harm or loss is outweighed by the benefit of bringing the site back into use.

*3. Development proposals that would result in less than substantial harm to the significance of a listed building will be expected to:* 

*i)* minimise harm and avoid adverse impacts, and provide justification for any adverse impacts, harm or loss of significance;

*ii) identify any demonstrable public benefits or exceptional circumstances in relation to the development proposed; and* 

iii) investigate and record changes or loss of fabric, features, objects or remains, both known and unknown, in a manner proportionate to the importance of the change or loss, and to make this information publicly accessible.

4. Changes of use will be supported where it can be demonstrated that the new use can be accommodated without any adverse effect on the significance of the building and its setting.

#### 6.5.4 Policy ENV8: Conservation Areas

1. Proposals for development within or affecting the setting of a Conservation Area must conserve or enhance its special interest, character, setting and appearance. Development will be expected to:

i) contribute to the Conservation Area's special interest and its relationship within its setting. The special characteristics of the Conservation Area (such as existing walls, buildings, trees, hedges, burgage plots, traditional shopfronts and signs, farm groups, medieval townscapes, archaeological features, historic routes etc.) should be preserved;



ii) take into account important views within, into or out of the Conservation Area and show that these would be retained and unharmed;

iii) respect the local character and distinctiveness of the Conservation Area in terms of the development's: siting; size; scale; height; alignment; materials and finishes (including colour and texture); proportions; design; and form and should have regard to the South Oxfordshire Design Guide and any relevant Conservation Area Character Appraisal;

iv) be sympathetic to the original curtilage of buildings and pattern of development that forms part of the historic interest of the Conservation Area;

v) be sympathetic to important spaces such as paddocks, greens, gardens and other gaps or spaces between buildings which make a positive contribution to the pattern of development in the Conservation Area;

vi) ensure the wider social and environmental effects generated by the development are compatible with the existing character and appearance of the Conservation Area; and/or vii) ensure no loss of, or harm to any building or feature that makes a positive contribution to the special interest, character or appearance of the Conservation Area.

2. Where a proposed development will lead to substantial harm to or total loss of significance of a Conservation Area, consent will only be granted where it can be demonstrated that the substantial harm is necessary to achieve substantial public benefits that outweigh that harm or loss.

3. Where a development proposal will lead to less than substantial harm to the significance of a Conservation Area, this harm will be weighed against the public benefits of the proposal.

4. Wherever possible the sympathetic restoration and re-use of structures which make a positive contribution to the special interest, character or appearance of the Conservation Area will be encouraged to prevent harm through the cumulative loss of features which are an asset to the Conservation Area.

#### 6.5.5 Policy ENV9: Archaeology and Scheduled Monuments

1. Development must protect the site and setting of Scheduled Monuments or nationally important designated or undesignated archaeological remains.

2. Applicants will be expected to undertake an assessment of appropriate detail to determine whether the development site is known to, or is likely to, contain archaeological remains. Proposals must show the development proposals have had regard to any such remains.



3. Where the assessment indicates archaeological remains on site, and development could disturb or adversely affect archaeological remains and/or their setting, applicants will be expected to:

i) submit an appropriate archaeological desk-based assessment; or

*ii) undertake a field evaluation (conducted by a suitably qualified archaeological organisation), where necessary.* 

4. Nationally important archaeological remains (whether scheduled or demonstrably of equivalent significance) should be preserved in situ. Non-designated archaeological sites or deposits of significance equal to that of a nationally important monument will be assessed as though those sites or deposits are designated.

5. Where a proposed development will lead to substantial harm to or total loss of significance of such remains consent will only be permitted where it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss.

6. Where a development proposal will lead to less than substantial harm to the significance of such remains, this harm will be weighed against the public benefits of the proposal.

7. For other archaeological remains, the effect of a development proposal on the significance of the remains, either directly or indirectly, will be taken into account in determining the application.

8. In exceptional cases, where harm to or loss of significance to the asset is considered to be justified, the harm should be minimised, and mitigated by a programme of archaeological investigation, including excavation, recording and analysis. Planning permission will not be granted until this programme has been submitted to, and approved by, the Council and development should not commence until these works have been satisfactorily undertaken by an appropriately qualified organisation. The results and analysis of findings subsequent to the investigation should be published and made available to the relevant local and county authorities.

# 6.5.6 Policy ENVIO: Historic Battlefields, Registered Parks and Gardens and Historic Landscapes

1. Proposals should conserve or enhance the special historic interest, character or setting of a battlefield, or park or garden on the Historic England Registers of Historic Battlefields or Register of Historic Parks and Gardens of Special Historic Interest in England.

2. Any harm to or loss of significance of any heritage asset requires clear and convincing justification. Substantial harm to or loss of these assets should be wholly exceptional in the case of Registered Historic Battlefields and Grade I and Grade II\* Registered Historic Parks and Gardens and exceptional in the case of Grade II Registered Historic Parks and Gardens.



3. Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, consent will only be granted where it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss. All other options for their conservation or use must have been explored.

4. A balanced judgment, having regard to the scale of any harm or loss and the significance of the heritage asset, will be required in assessing proposals affecting non-designated historic battlefields, parks and historic landscapes including historic routes.

5. Applicants will be required to describe, in line with best practice and relevant national guidance, the significance of any heritage assets affected including any contribution made by their setting. The level of detail should be proportionate to the asset's importance. In some circumstances, further survey, analysis and recording will be made a condition of consent.

#### Culham Neighbourhood Plan 2020-41

6.5.7 The Culham Neighbourhood plan was made (adopted) part of the district council's development plan on 12 June 2023. The relevant policy to this assessment is CUL6, Local Heritage Assets, which states:

'The Neighbourhood Plan identifies buildings as Local Heritage Assets as included in the Appendix B and shown on the Policies Map, for the purposes of applying development plan policies on non-designated heritage assets:

- i. The Lion, High Street;
- ii. Nos. 7 11 The Green;
- iii. 22-23 High Street;
- iv. School House, High Street;
- v. Kiln Cottage;
- vi. Station House;
- vii. The Railway Inn;
- viii. Tollgate Cottage;
- ix. 60 Abingdon Road;

x. Maud Hales Terrace, Abingdon Bridge;

xi. Pill boxes (Types FW3/24 The Burycroft; FW3/24C & FW3/28A at Appleford Bridge; FW3/28A at Sutton Bridge; FW3/24C at Sutton Pools; FW3/28A at Zouch Farm and FW3/28A at Tollgate Road).'

6.5.8 The policy designates certain buildings or structures as Local Heritage Assets in order to give them additional protection as heritage assets, in recognition of the important contribution they make to the special character of the parish for the application of Policy ENV6 of the SODCLP. Policy ENV6



requires a balanced judgement to take place where proposals directly or indirectly affect the significance of a local heritage asset taking into account the scale of any harm or loss and the significance of the asset, in line with §197 of the NPPF. This means that Policy ENV6 will apply to schemes coming forward which may affect the local heritage assets listed in this policy. Culham parish also comprises a rich archaeological landscape within which are contained numerous cropmark complexes denoting its early occupation and use from the prehistoric period onwards. This policy focuses on the built historic environment. Policy ENV6 of the SODCLP will therefore continue to apply to above or below ground archaeological remains as well as other elements of the historic environment.

# 7 METHODOLOGY

# 7.1 Introduction

- 7.1.1 This assessment has been prepared in accordance with National Planning Policy Framework (NPPF 2024), which provides an approach for describing the significance of a heritage asset. NPPF specifies that the significance of any heritage asset(s), including any contribution made by setting, should be described in a 'level of detail proportionate to the assets' importance, and no more than is sufficient to understand the potential impacts of the proposal on their significance'.
- 7.1.2 The impact of the proposed development upon the setting of a heritage asset(s) has been assessed following the methodology detailed in Historic England's *The Setting of Heritage Assets, Good Practice Guidance Advice in Planning Note 3* (2017).
- 7.1.3 The Historic England guidance note provides guidance for managing change within the setting of heritage assets, including archaeological remains and historic buildings, sites, areas and landscapes. It puts forward a staged approach to taking decisions on setting as well as providing advice on how to assess the contribution of views to the significance of heritage assets.
- 7.1.4 The following steps, used within this assessment, are recommended by Historic England as a broad approach to assessment:
  - Step 1: Identify which heritage assets and their settings are affected.
  - Step 2: Assess the degree to which these settings make a contribution to the significance of the heritage asset(s) or allow the significance to be appreciated.
  - Step 3: Assess the effects of the proposed development whether beneficial or harmful, on that significance or on the ability to appreciate it.
  - Step 4: Explore ways to maximise enhancement and avoid or minimise harm.
  - Step 5: Make and document the decisions and monitor outcomes.



#### 7.2 Scope and Sources Consulted

- 7.2.1 Historic England's *The Setting of Heritage Assets* (2017) specifies that the first step of the assessment should identify those heritage assets likely to be affected by the proposed development. This is informed by a desk-based study and site visit.
- 7.2.2 A lkm search area (hereafter the study area) has been used to identify designated and non-designated heritage assets which could be affected by the proposed development. The study area and list of sources have been agreed with the local authority's historic environment advisor. The assessment was informed through both a desk-based review and a site visit.
- 7.2.3 The following sources were consulted to inform this assessment:
  - The National Heritage List for England (NHLE) for designated heritage assets
  - Oxfordshire Historic Environment Record (OHER) for non-designated heritage assets, archaeological events and Historic Landscape Characterisation
  - The Oxford History Centre (County Record Office) for historic maps and manuscripts
  - Groundsure Mapping for Historic Ordnance Survey maps
  - Historic England Archives in Swindon for historic aerial photographs and National Mapping Project (NMP) data
  - LiDAR data as held by the Environment Agency
  - Geotechnical data as held by the client and the British Geological Survey, and
  - Other relevant primary and secondary sources included published and unpublished works as held by OA, the Oxfordshire History Centre and the Sackler and Bodleian Libraries, Oxford and other archives as identified.
- 7.2.4 For ease of reference each heritage asset identified has been allocated a unique OA number. This is included in the heritage gazetteer provided in Appendix A, referred to in the text where relevant and marked on Figures 2–4. A full list of sources consulted can be found in Appendix B. Figures 5–17 show historic mapping of the site.

# 7.3 Assumptions and Limitations

- 7.3.1 Data used to compile this report consists of secondary information derived from a variety of sources. The assumption is made that this data is reasonably accurate.
- 7.3.2 The records held by the OHER are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within it is not complete and does not preclude the subsequent discovery of further heritage assets that are, at present, unknown.



# 8 HISTORIC ENVIRONMENT BASELINE

#### 8.1 Introduction

8.1.1 The following section identifies the known heritage assets within the study area. These were identified from sources listed above and through a site walkover. In accordance with Step 1 of Historic England's *The Setting of Heritage Assets* (2017) this section also identifies heritage assets that have the potential to receive effects to their setting and heritage significance from the proposed development within the site.

#### 8.2 Walkover Survey

- 8.2.1 A walkover survey of the site was carried out on the 13th of December 2024 in cloudy conditions. No new archaeological features were identified during the visit. The site comprised six fields, currently in pasture, a small patch of green space on the northern edge of Culham Science Centre and part of the northern access track for the Science Centre. The north-west part of the site could not be accessed as it was fenced, and livestock were grazing the area (Plates 1-3). However, the area was clearly visible from the adjacent access road.
- 8.2.2 The south-west corner of the site, north of Thame Lane, was flat with a number of discrete undulations and some possible areas of ground disturbance, which possibly related to the construction of an airfield (Plates 1 and 2). These undulations correlate with anomalous/ferrous features identified during the geophysical survey (Fig. 25). North of these areas, along the western boundary of the site, a pronounced earthwork (**OA 66**) was observed. This is also shown on LiDAR imaging of the site (Figs 20–21). The date and origin of the earthwork are unconfirmed but it was probably created during the widespread landscaping of the area that was carried out when the Naval Air Station was constructed in in the 1940s. Alternatively, it may relate to the modern electrical infrastructure that has been installed in this part of the site (Plates 7–8).
- 8.2.3 The northern part of the site falls within the Nuneham Courtenay Registered Park and Garden and is currently in use as pasture. The topography in this area trends slightly uphill in a north-easterly direction from the park boundary (Plates 5–6). There are no trees in this part of the site and the park boundary and parish boundary are not marked by any earthworks or planting. The land level continues to ascend to the north-east of the site (Plate 9).
- 8.2.4 Views from the southern edge of the Nuneham Courtenay Registered Park and Garden looking across the site take in the predominantly agricultural landscape to the west of the site and the Culham Science Centre which is located to the south of the site (Plate 11). There are no views of the site, the Culham Science Park or the surrounding agricultural land from the centre of the Registered Park and Garden or from within the Culham Conservation Area (Plate 12).
- 8.2.5 There are clear views from the western side of the site looking towards the proposed location of the STRAT9 Housing development, which will be



located to the western side of the railway (Plates 10–11). At present, these views include the overhead cables which currently run parallel to the railway through the western part of the site.

#### 8.3 Designated Heritage Assets

8.3.1 The northern part of the site is situated within the Nuneham Courtenay Registered Park and Garden. In the wider study area, there are two Conservation Areas, three Listed Buildings (OA 1-3) and one locally listed building (OA 64). The locations of these heritage assets are shown on Figure 2 and they are discussed below.

#### Registered Parks and Gardens

- 8.3.2 The north-west boundary of the site extends approximately 250m into the Grade I Nuneham Courtenay Park and Garden (NHLE 1000122). The park comprises 470ha of landscaped parkland and pleasure grounds which were laid out around Nuneham House in three phases from the 1760s to 1832. After relocating the village of Nuneham (called Newnham) in 1760, the first phase of the parkland was laid out by the first Earl Harcourt, who wanted a classical landscape to offset his Greek 'temple', the newly constructed church. The second earl commissioned a flower garden and a picturesque landscape, by William Mason, in the 1770s. In 1779–82, Mason and the Earl supervised the laying out of the parkland and 'Brown's Walk' in the pleasure grounds, as designed by Lancelot 'Capability' Brown. William Gilpin carried out some other works and designed the arboretum in 1832.
- 8.3.3 The site and the Culham Science Centre are located within the agricultural landscape to the south of the main parkland. Four areas of woodland associated with the park lie within the study area: Lock Wood, Ewer's Copse, Furze Brake and New Covent, as shown in Figure 2.
- 8.3.4 Nuneham Courtenay's gardens are categorised by the Register of Parks and Gardens as 'Country House Gardens [dating from] 1660 to the late 18th century' (Rural Landscapes: Register of Parks and Gardens Selection Guide 2018, 7). The register states that during the 'later seventeenth century prospects were of growing importance to garden designers, with views being carried out into the countryside beyond by axial and radial avenues of trees and rides through woodlands' (ibid., 7). The house and the parkland at Nuneham Courtenay sit on a wooded knoll above the River Thames. The park was set out with a complex series of vistas facing north-west towards Oxford and Abingdon and south towards the Sinodun Hills. The site is situated on the south-western edge of the park. The south-western boundary of the park was historically marked by woodland which would have obscured views looking south-west from the park across the surrounding landscape. In the modern period the south-western part of the park (including the site) was converted to farmland and the woodland that had defined the boundary of the park was removed, opening up views over the surrounding landscape.
- 8.3.5 The south drive (**OA 62**), now disused, was the principal approach into the landscape park from London before 1900 and was used to enter the park 2km south-east of the house, past the now demolished site of Abingdon



Lodge (**OA 63**; Fig. 18). The drive curved north-east through the park with views to the west, south and east opening up at various points. South Drive joined the main drive by Manor Lodge. The drive is first depicted on Davis's 1797 map of Oxfordshire (Fig. 6) and is later shown on subsequent Ordnance Survey mapping between 1875 and 1960 (Figs 8–11). These maps show the drive entering the Park and Garden from a point immediately east of the site. The northern part of the site, which extends into the Register Park and Garden, would have been visible from the drive. However, any views from the drive, looking across the northern part of the site into the surrounding landscape would have been blocked by the treeline along the southern park boundary. The planned long-range views looking out of the park into the surrounding landscape appear to occur further to the north and within the core of the Park and Garden.

#### Conservation Areas

- 8.3.6 There are no Conservation Areas located within the site. In the wider study area, there are two Conservation Areas: Nuneham Courtenay and Clifton Hampden. The Nuneham Courtenay Conservation Area partly intersects with the Nuneham Courtenay Park and Garden. The southern part of the landscape park (including the site) does not fall within the conservation area. The location and extent of each of these areas are shown in Figure 2.
- 8.3.7 The shared history between the village of Nuneham Courtenay and the associated landscape park was one of the reasons for its designation as a single Conservation Area on 11 December 1984. This designation imposes controls over developments in the village as a whole and on the individual buildings from which its special character and appearance is derived. This was agreed in the Nuneham Courtenay Agreement, signed by the University of Oxford, South Oxfordshire District Council and the inhabitants of the village on 1 August 1980 (A Guide to the Planning Legal Agreement Nuneham Courtenay: 3).
- 8.3.8 The Clifton Hampden Conservation Area lies at the southern edge of the study area, *c* 1.4km from the site. This area was designated in the 1970s and includes the historic village of Clifton Hampden, a distinctive riverside settlement, characterised by series of vernacular, thatched cottages (Burcot and Clifton Hampden Neighbourhood Plan 2020: 10). Due to the distance between the site and this area, it has been scoped out from this assessment.

# 8.4 Approach for assessing Heritage Significance

- 8.4.1 Step 2 of Historic England's *The Setting of Heritage Assets* (2017) requires the setting and significance of heritage assets to be identified. NPPF defines significance (for heritage policy) as 'the value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting'.
- 8.4.2 Heritage interests are defined in Planning Practice Guidance (2024) as:



- **Archaeological interest**: There will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.
- Architectural and artistic interest: These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically architectural interest is an interest in the art or science of design, construction and craftmanship and decoration of building and structures of all types. Artistic interest is an interest in other human creative skill like sculpture.
- **Historic Interest**: An interest in past lives and events (including prehistoric). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.
- 8.4.3 Elements of a heritage asset's setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

#### 8.5 Prehistoric Period (500,000 BP – AD 43)

#### Early Prehistory

- 8.5.1 A number of Palaeolithic stone tools have been recovered from the study area, including three handaxes, each recovered from the gravel terrace situated along the river, *c* 800m north-west (**OA 16**) of the site, with a further handaxe found *c* 1km (**OA 15**) north-west of the site. An additional boutcoupé-style handaxe, dating from the middle Palaeolithic period, was recovered during gravel extraction works *c* 1.2km to the north of the site.
- 8.5.2 Activity on the gravel terraces on the north bank of the river continued during the Mesolithic period. Over 1700 artefacts, including Mesolithic and Neolithic flints and some bones (**OA 19**), were found during construction works c 1km north of the site. The OHER records that the density, variety and worked character of this material indicates flint-working and settlement in these areas during the Mesolithic and Neolithic periods. Stratigraphically, these finds were found on top of the gravel geology, overlaid by alluvial clay (Ainslie 2002, 38).
- 8.5.3 Other Mesolithic findspots consist of a flint blade (**OA 21**) found *c* 760m to the north-west of the site; a Thames pick (**OA 20**), discovered in the bottom of a drainage ditch, *c* 1.1km to the north-west of the site; and a microlithic blade (**OA 22**) recovered from a borehole survey, *c* 1.3km to the north of the site.
- 8.5.4 Within the study area, Neolithic material ranges from findspots (**OA 24–26**) to possible settlements. The bulk of this material has been recovered from the north side of the river, with the notable exception of a cluster of features (visible as cropmarks) *c* 1.2km south-east of the site. These features comprise rectangular enclosures, pits, linear features, parallel lines, trackways, and a



ring-ditch (**OA 27**), recognised on aerial photographs, and are interpreted to be possibly Neolithic by the OHER. Other Neolithic material includes a knife, a sherd of pottery and a small quantity of human remains (denoting a human burial; **OA 23**), c 800m to the north-west of the site; a ring ditch, a layer interpreted as a Neolithic floor level, and finds (**OA 28**), c 930m to the north-west of the site; and a general spread of occupational activity as revealed by pits (**OA 30**), 770m to the north of the site. A pit containing 50 sherds of Durrington Walls (late Neolithic) pottery (**OA 29**) was discovered in front of an Iron Age hut within a later settlement (**OA 37**; see below), c 810m north of the site.

# Later Prehistoric

- 8.5.5 Bronze Age activity is suggested by the discovery of several sherds of Beaker pottery (**OA 31**) *c* 910m to the north-west of the site, and a possible barrow (**OA 32**) was identified in the 2016 geophysical survey (Fig. 3; **OA 10**), *c* 940m east of the site. Other known Bronze Age barrows and barrow cemeteries have been recorded outside of the study area along and adjacent to the River Thames (e.g. at Fullamoor Plantation, Radley, Appleford, Burcot and Dorchester).
- 8.5.6 The presence of Iron Age features within the site has been suggested by cropmarks remains and excavations. As mentioned above, a geophysical survey (Fig. 3; **OA 10**) carried out within the site revealed the presence of a series of enclosures (**OA 42**), aligned south-west/north-east, as well as a possible trackway and probable barrow (Headland Archaeology 2016, Ill. 17, and 42). These features are partly located within the southern portion of the site and were recorded by OHER as prehistoric. The enclosures (**OA 42**) have been plotted on Figure 25.
- 8.5.7 Further Iron Age evidence was found during gravel extraction works along the north bank of the Thames. Among the archaeological features revealed during these works (**OA 8**) was a possible Iron Age settlement (**OA 37**), which was found *c* 700m to the north-west of the site. Other features recorded within the settlement included a possible Iron Age inhumation (Wilson *et al.* 1984, 3–4) and a gully that contained a complete Romano-British flagon surrounded by burnt debris, revealed to be cremated human bones (Wilson *et al.* 1984, 3).
- 8.5.8 Within the same area of gravel extraction, The OHER has identified several ditches cut in the natural gravel, probably part of an enclosure (**OA 36**). These were located *c* 800m to the north-west of the site.
- 8.5.9 Cropmarks (**OA 35**) located *c* 930m to the south-east of the site show a series of linear features which have been identified as possibly Iron Age. Another series of at least 10 enclosures, over two complexes, were interpreted as a possible settlement and/or field system (**OA 41**), after being identified as geophysical anomalies *c* 700m to the south of the site.
- 8.5.10 Some archaeological features including ditches, gullies and pits (**OA 18**) dating from the prehistoric to Roman periods had been revealed, *c* 1km to the south-east of the site.



8.5.11 Iron Age ditches reused in the Roman period (**OA 34**) were found *c* 930m to the north-west of the site, although they were all badly damaged during topsoil stripping.

#### Recent Oxford Archaeology Investigations (October 2024)

8.5.12 Recent excavations (OA 2025) within the site recovered two stuck-flints and nine fragments of burnt unworked flint of unknown date in the south-western part of the site.

#### 8.6 Romano-British Period (AD 43 – 410)

- 8.6.1 Roman material recorded within the study area includes two Roman pots (OA 44) found during the construction of the railway cutting in 1844 near the corner of Nuneham Park. Both pots were dated to the 3rd or 4th centuries. One consisted of imitation Samian ware and the other of greyware. The OHER lists the locations of these finds as being c 10m to the west of the site.
- 8.6.2 Other material found within the study area included a copper alloy seal matrix with a name cast in retrograde (**OA 43**), which was found by metal detecting *c* 830m to the south-west of the site, and a gully, found during gravel works *c* 700m north-west of the site. The gully contained a complete Romano-British flagon surrounded by cremated human bones (Wilson *et al.* 1984, 3).

#### Recent Oxford Archaeology Investigations (October 2024)

8.6.3 Recent excavations (OA 2025) have demonstrated that the south-western part of the site was occupied during the late Roman period. Roman activity in this area comprised ditches which may have formed field boundaries or possibly enclosures. The ditches were most commonly oriented on a north-west/south-east alignment. Few features were intercutting, perhaps suggesting that the features were only in use for a short span of time during the late Roman period. The activity discovered during the evaluation has been interpreted as the edge of a potentially more substantial settlement (OA 45) located c 320m to the north-east of the site (OA 2025, 18). Pottery assemblages, recovered from the site were predominantly dated to the late Roman period and suggest that the area was in use during the 4th century. The pottery assemblages include imported fine wares and South Spanish amphora, which suggest that the settlement was of at least moderate status.

# 8.7 The Medieval Period (AD 410 – 1550)

# Early-Medieval Period (AD 410 – 1065)

8.7.1 The placename Culham suggests that the settlement had Anglo-Saxon origins. The name Culham comes from the Old English for *Cula's hamm*, which refers to the village's position in a bend of the Thames (VCH 1962, 27–39). It is difficult reconstruct the precise layout and environs of the site from the early-medieval period to the 16th century. Historic cartographic sources show that the site was either close to, or crosses the boundaries of, three separate parishes: Culham, Nuneham Courtenay and Clifton Hampden. Each of these parishes are now included within the Parish of Dorchester.



- 8.7.2 The site lies closer to Nuneham parish, which at the time was partly covered by woodland. A coppice two furlongs long and one wide is mentioned in the Domesday Book (VCH 1957, 234–49). In the Domesday Survey of 1086, the village was called 'Newenham' and was held by a Dane called Hacon, with a recorded population of 45 households which mostly relied on the river for their living. Three fisherman and a lucrative water mill are recorded, and the fact that the tenants of the village paid a high rent suggests a wealthy community. The name means 'new settlement', possibly hinting at an Anglo-Saxon foundation chronologically later than some of the earlier surrounding villages, most notably, Dorchester. The Domesday Book also mentions the existence of 40 acres of meadow and 10 of pastures.
- 8.7.3 There is little archaeological evidence dating to this period within the study area, and the main evidence had been found in the surroundings of Clifton Hampden, a settlement not mentioned by the Domesday Survey. In 1892, during drainage work in fields north of Clifton Hampden, several human skeletons with battle axes, swords, and other iron artefacts were revealed. These were identified as Anglo-Saxon inhumation burials (**OA 46**), located c 1.3km to the south-east of the site. Anglo-Saxon pottery sherds found within the Romano-British enclosure system during the recent evaluation works (**OA 56**) suggest the reuse of this system during the early medieval period (OA 2023, 32).

#### Later Medieval Period (1066 – 1550)

- 8.7.4 In 1086, Nuneham was held by the de Courcy family, until it was inherited in 1224 by a granddaughter, Margaret, who's married name was de Riviers, and it was kept in this family until 1293, when it was transferred to the king's hands (VCH 1957, 234–49). During this period, the village continued to prosper. In 1310 it was granted to Hugh de Courtenay, the Earl of Devon, and remained in the family until 1391, when it was owned by Sir John Drayton and then by his wife until her death in 1437. After a two-decade long dispute among the possible heiresses, in 1492 it passed to the de la Pole family, but they lost the estate after their rebellion and Nuneham passed from hand to hand until John Pollard acquired the manor in 1544.
- 8.7.5 The Victoria County History states that 'the fields [of the village] lay no doubt as they did centuries later to the north and east of the village. But in 1086 it seems that much less than half the township's land was cultivated. (...) The rest of the land must have been covered, as much of it has always been since, with woodland and furze'.
- 8.7.6 Little is known of Culham before the Tudor period, except that it was part of Abingdon Abbey's property (VCH 1939, 373–95). Culham's rights of sanctuary continued in this period until 1442, and it was exempted from taxation from 1291. The manor of Culham was part of Abingdon Abbey's properties until the Dissolution (1538), when it was seized by the Crown and then seized by the Burys in 1545. The manor seems to have comprised the bulk of the land in the parish. It is not possible to calculate the exact acreage from the survey of 1539, but the manorial land was then at least 1136 acres and almost certainly more.



8.7.7 During the medieval period the site does not appear to have been part of the open fields associated with Nuneham. The Victoria County History indicates that the open fields of Nuneham were located to the north and east of the village away from the site and no evidence of medieval cultivation practices (such as ridge and furrow earthworks) have been identified on the LiDAR (see below). During this period the site may have instead been covered by a combination of woodland, pasture and heath.

#### 8.8 Post-Medieval Period (1550 – 1900)

- 8.8.1 Historical documents dating to the 16th century regulated the use of the common land. As the site is depicted as lying within Culham Heath on later maps (see below), it is likely that it was part of the common land in the previous centuries as well. 'In 1686 every yardland had customary commons for 5 beasts and 60 sheep. The common called Culham Heath was to be used for horses and cows from 1 May and for sheep from St Thomas's Day; it was to be hained [lay fallow] from 2 February to 1 May' (VCH 1939, 373–95). The Bishops obtained possession of the manor in 1662, when the male line of Burys came to an end.
- 8.8.2 An early map of Berkshire, drawn by Roque in 1761, shows Culham to the north of a water course (Fig. 5). The site is shown in more detail on Davis' map of Oxfordshire (1797; Fig. 6). Davis' map shows the site as partially within Nuneham Courtenay Park, partially within Lock Wood, partially within Culham Heath and partially within two fields. The watercourse shown on Rocque's map is shown on the southern edge of Culham Heath to the south of the site. The 18th-century layout of the park is clearly shown. At this time the southern boundary of the park was defined by two areas of woodland divided by South Drive. The boundary of the park coincides with the current park boundaries and a lodge, probably Abingdon Lodge (**OA 63**), is shown next to South Drive.
- 8.8.3 There are two pre-enclosure plans of the parish of Culham held at the Oxfordshire History Centre, one dating to 1802 and showing the property of Sir Cecil Bishopp (Ref. SL121/M/1) and the other dating to 1810 (Ref. 50 Geo III c.cxlas and Award MS. D. D. Par. Culham b.12). Both maps show the same layout of the fields within the site and its environs. The older map is depicted in Figure 7. The southern portion of site was divided between two fields owned by Sir Cecil Bishopp, Lord of the Manor of Culham and Bishop of Oxford. The western one was used as a manorial allotment, and the other was labelled as Culham Poor, an allotment on the heath. The northern portion of the site lies within a wood, possibly connected to the Lock Wood of Nuneham Park. This suggests that at the beginning of the 19th century the site was mainly used as manorial allotment, a small portion at the east was on the heath allotted to the poor, and another small portion was possibly part of Lock Wood.
- 8.8.4 The railway line from Didcot to Oxford (**OA 51**) runs partly through the eastern fringe of the parish, west of the site. Although first considered in 1833, it was completed in 1844 (VCH 1962, 27–39).



- 8.8.5 The Nuneham tithe map, as held by Oxfordshire History Centre (Ref. 292/M) and accessible online, is dated 1843.<sup>1</sup> While the majority (the southern half) of the site is not depicted on this map, the areas of the site that extend into the Registered Park and Garden on the north side of the parish boundary are shown. These parts of the site are depicted as a mixture of parkland/enclosed plots. The southern boundary of the Park (within the site) is defined by a stretch of woodland, which extends along the northern side of the parish boundary. Abingdon Lodge (**OA 63**) can be seen on the southern park boundary adjacent to South Drive (**OA 62**).
- 8.8.6 The First Edition (1875) Ordnance Survey map (Fig. 8) shows Abingdon Lodge as lying in the vicinity of the site.

#### Recent Oxford Archaeology Investigations (October 2024)

8.8.7 Recent excavations (OA 2025) within the site suggest that, following the Roman period, the site retained its rural character through the medieval and post-medieval periods. Evidence of post-medieval cultivation activity (plough scars and furrows) has been identified in the centre of the site.

#### 8.9 Modern

- 8.9.1 The 1900 Ordnance Survey map (OS; Fig. 9) shows the division into the two fields already identified in the pre-enclosure maps. The only relevant change shown on the 1910 OS map (Fig. 10) was the plantation of trees along the south drive (**OA 62**). Analysis of historic aerial photography showing the site suggests that the tree lined avenue remained until June 1943 (Swindon Archive Ref. US/13PH/581; Plate 13). By December 1943 (Swindon Archive Ref. US/7PH/GP/LOC107; Plate 14) the tree-lined estate road (**OA 62**) that previously connected the park to the station, until it crossed Thame Lane, had been destroyed.
- 8.9.2 In 1944, an Aircraft Receipt and Despatch Unit for the Royal Navy was commissioned and built within the site's environs. This covered the eastern part of the site, the wooded area, and extended into Nuneham Park. Known as Royal Naval Air Station (RNAS Culham) or HMS Hornbill, this airfield was operational as part of the Fleet Air Arm between 1944 and 1953. In the aerial photographs held at Swindon, reserved due to the military confidentiality until 1993, different phases of construction are recognisable. Thame Lane was diverted to its current layout and the estate road to the station terminated where it met the new line of the lane. The ground layout was characterised by three runways, many hangars, and two encampments.
- 8.9.3 In the late 1950s, the United Kingdom Atomic Energy Authority identified Culham as a suitable site for the construction of a new laboratory for plasma physics and fusion research that officially opened in 1965 (https://culham.org.uk/about-us/). All the buildings and roadways were

<sup>&</sup>lt;sup>1</sup> <u>https://www.oxfordshirehistory.org.uk/public/maps/tithe/zoomified/zoom.htm?Nuneham-Courtenay</u> accessed 28/09/22. It is worth mentioning that this map has a south-up orientation.



v.2.1

dismantled, and the estate handed back to the original owners. It is known nowadays as Culham Science Centre. Possibly given the military importance of this centre, it is not shown on the 1960 OS map (Fig. 11).

- 8.9.4 Aerial photography of the site suggests that South Drive (OA 62) was destroyed during the levelling prior to the airfield construction (Plate 15). On a radio amateur website, it is possible to see a photograph dating to the 1970s showing the preserved gate of Abingdon Lodge. It was not possible to add the photo to this assessment because of copyright restrictions. However, it is available online (see footnote<sup>2</sup>) and it shows Abingdon Lodge with a caption which reads 'This appears to have been a southern gateway into Nuneham park turning off Thame Lane, and was just on the left after you crossed the railway. Known as Abingdon Lodge, it seems to have been preserved all the way through the time of the air station, having become "raised up" presumably after the surrounding ground was levelled. However, this was demolished soon after the picture was taken and nothing remains'. The photo shows the gate as standing over a mound within the site. Later OS maps dated 1975, 1982, and 1992 (Figs 12–14) show a depression in the area where Abingdon Lodge used to stand.
- 8.9.5 The satellite photographs available on Google Earth Pro App range from 1985 to 2022. Although the 1985 photograph is not clear enough to distinguish detail, there are many photographs dated 2003, 2004, 2006, 2009, 2010, 2017, 2018, 2020, 2021, and 2022. The layout of the fields and the rural character of this area to the north of Culham Science Centre remained virtually unchanged, as also confirmed by the OS maps 2001, 2010, and 2022 (Figs 15–17).

# Recent Oxford Archaeology Investigations (October 2024)

8.9.6 Recent excavations (OA 2025) within the site identified instances of modern quarrying/dumping and related infrastructure in the western and easternmost parts of the site, as well as modern glass and metal assemblages from across the site, reflecting the succeeding occupation of the site as a modern military base.

# 8.10 Undated

- 8.10.1 A number of undated features have been recorded within the study area, mostly connected with visible cropmarks.
- 8.10.2 A series of field systems and associated features (**OA 57**) identified by geophysical survey (**OA 10**) are located c 100m to the south-west of the site (Headland Archaeology 2016, Ill. 17, and 42).

<sup>&</sup>lt;sup>2</sup> https://treasures.scss.tcd.ie/sliderule/TCD-SCSS-U.20121208.047/HMS-Hornbill-NavalAirStation-CulhamPark-MartinStrowger.pdf [Accessed 281/01/25].



#### 8.11 Aerial Photographs

- 8.11.1 A review of aerial photographs (APs) held at the Historic England Archive in Swindon was carried out as part of the baseline assessment. A total of 144 aerial photographs comprising vertical and oblique images covering the period 1942–2008 were reviewed. Figure 18 provides a sketch plot of the cropmarks identified by the National Mapping Programme (NMP) as supplied by the Historic England Archives, and this has been annotated with the features identified during the research for this report.
- 8.11.2 All the cropmarks identified by the NMP data coincide with an OHER monument (**OA 27**, **30**, **35–7**, **57** and **61**). However, some APs post-dating the airfield construction show additional cropmarks within the site environs. Features identified within the site, consisted of a round feature (**OA 65**) visible on the aerial photograph dating 2006 (Plate 15), and a linear feature that looks like the foundation of a former building (**OA 67**), visible on APs dating to 2006 (SU5396/7, SU5396/8, and SU5396/9; Plate 16). These features are located *c* 50m to the east of the site.
- 8.11.3 The former Abingdon Lodge (**OA 63**) and the south drive (**OA 62**) are also identifiable in all the APs pre-dating December 1943 (Plate 13).

#### 8.12 Lidar

- 8.12.1 The LiDAR data utilised in this report was captured by the Environment Agency (EA) and made available via the EA online archive. In this instance Digital Terrain Model (DTM) tiles and composite data for Ordnance Survey Sheet SU59NW were downloaded.
- 8.12.2 This data was surveyed at 1m intervals and was collected on 28/09/2022. The DTM data was processed using the Relief Visualisation Toolkit (RVT) and visualisations were created using Hill Shade, Sky View factor, open-positive, open-negative and simple local relief model (SLRM) visualisation techniques. Indicative hill-shade and SLRM visualisation of the site and the surrounding area have been included as Figures 19 and 20 respectively, with annotated version of the hill-shade as Figure 21. Possible archaeological features are visible within the site.
- 8.12.3 A linear earthwork (**OA 66**), oriented E-W, is recognisable within the northern portion of the site. The site visit suggested that this earthwork might be associated with the construction of an electricity pylon.
- 8.12.4 The SLRM LiDAR visualisation (Fig. 20) shows a river channel 360m to the north of the site.
- 8.12.5 There is no trace of ridge and furrow within the site's environs. It is not clear whether this is due either to the use of the site as heath or to the groundworks associated with the airfield construction.

#### 8.13 Historic Landscape Character

8.13.1 The site is spread across three areas of varying historic landscape use (Fig. 23). As such, the site is described in the Oxfordshire Historic Landscape Character Assessment (OHLC) as a combination of 'Post-medieval 'Reorganised Enclosures', in the central/western parts of the site; as



'Industrial', in the southern/eastern parts of the site; and as 'Ornamental Parkland/Designated Landscape', in the northern parts of the site.

8.13.2 The boundary between Nuneham Parish (established 1715) and Culham Parish (established 1650) are located within the site. However, there is no hedgerow delineating this border.

# **9** STATEMENT OF SIGNIFICANCE

#### 9.1 Introduction

9.1.1 In accordance with Step 2 of Historic England's The Setting of Heritage Assets (2017) the following section assesses the heritage significance of the known heritage assets as identified in the historic baseline that have the potential to receive effects from development within the site. The section assesses whether and to what degree the site contributes towards the setting and heritage significance of these heritage assets. The archaeological potential of the site is then summarised based on the historic environment baseline and known previous impacts.

#### 9.2 Designated Heritage Assets

9.2.1 The designated heritage assets outlined below have been statutorily listed due to their considerable historic, artistic, archaeological and architectural interest and as such, are considered to be of high (national) significance.

#### Registered Parks and Gardens

- 9.2.2 Nuneham Courtenay is a Grade I registered Park and Garden (NHLE 1000122). The landscape park and pleasure grounds extend south around the Grade II\* Nuneham House and form its landscape setting. The site and the Culham Science Centre are included within the rural setting located to the south of the main parkland. This rural setting and its associated views along the river towards Oxford and Abingdon were assessed by driving along the southern drive (**OA 62**), now disused as this southern side has been industrially developed since 1943.
- 9.2.3 The park is considered nationally important because of its architectural, historic and artistic elements which are derived from the topography of the park, its association with prominent historical figures such as Capability Brown, England's most influential and best-known designer of 'informal landscapes', of which this park is an early example, and the views over the river and Oxford's spires.
- 9.2.4 Historic England and SODC have provided comments on the significance of the park as part of the SODC Refusal Decision. (SODC Decision Notice). These comments identify the key heritage assets/features from which the Park and Garden derives its significance, principally; the All Saints Church (1286134), which was designed to take advantage of the topography with sweeping views over the Thames valley and rural vista towards the north of the park; The Flower Garden and the related Temple of Flora, which were laid out along the informal principals of the Poet, William Mason; the Carfax Conduit (1193569), a major example of Jacobean architecture removed from Carfax in



Oxford city to improve the traffic flow and re-erected within the Park and Garden as a focal point of the view southwards from outside the main house; and the additions/improvements to the landscape park made by Capability Brown between 1778-82, including an enhancement to the southern drive. South Drive was an important feature of the 19<sup>th</sup> century estate and provided view of the naturalised landscape in the southern part of the park which included areas of woodland, woodland pasture as well as a shelter belt round the perimeter of the park. This assessment agrees with the Historic England and SODC assessment of the significance of these features and the conclusion that they make a high contribution to the overall significance of the Park and Garden.

- 9.2.5 The bulk of the surviving parkland feature are located in the central/northern areas of the Park and Garden, in the immediate environs of the main house, approximately 1km north-east of the site and the majority of these assets can be best appreciated from this part of the park. The tower of All Saints Church was intended to be appreciated from further afield (primarily from the northern approach to the estate). South Drive originally passed through the southern part of the park continuing beyond Abingdon Lodge (**OA 63**) as a tree-lined avenue which connected the estate with the newly built Culham railway station. South Drive as it passed to the east of the site appears to have been subsumed into the Culham airfield (RNAS Culham/ RMS Hornbill) from 1944 onwards; however, its former trajectory has been partially preserved by an access track. North of the site, South Drive appears to have been removed and is no longer a functioning access route to the Park and Garden.
- 9.2.6 The site extends into the southern part of the Park. The southern park boundary was originally located along the northern side of the parish boundary. The former park and parish boundary is not currently defined by any visible boundary features or planting. This boundary (for both the Park and the Parish) was previously marked by a treeline (shelter belt), which is visible on historic mapping of the site from 1797 (Davis; Fig. 6) up until the 1910 (OS County Series map; Fig. 10) and was probably removed during the construction of the Naval Station in the 1940s.
- 9.2.7 Since the 1940s, the landscape character of the Park and Garden within the site has principally been that of enclosed fields used for agriculture and is distinct from that of its original 'Brownian' character, as seen in the landscape park to the north. Due to the loss of the original parkland layout (including areas of former tree planting, the shelterbelt defining the boundary of the park and portions of South Drive). These southern areas of the Park and Garden are considered to make a lesser contribution to the heritage significance of the Park and Garden as a whole when compared with the areas to the north which still retains their original planned layout and aesthetic character. The character of the southern part of the park has been further degraded by the more urban areas that have been constructed south of the Registered Park and Garden throughout the later 20th century. The main landscape park is located *c* 1km north-east and is not visible from the site due to the topography of the area.


9.2.8 The part of the site to the south of the Registered Park and Garden, forms part of the setting of the Registered Park and Garden. In its current form this area provides a green buffer between the park and the more industrialised landscape of the Culham Science Park. This allows the parkland to be appreciated as a sperate entity separate from the industrial development to the south. The agricultural land in this area was historically part of the estate associated with the park and the agricultural character of the land in this area allows this historic relationship to be appreciated.

### Conservation Area: Nuneham Courtenay

- 9.2.9 The Nuneham Courtenay Conservation Area covers the northern part of the Nuneham Courtenay Park and Garden. This means that the site is adjacent to but not within the Conservation Area. The Conservation Area includes both the park and the village of Nuneham Courtenay. In 1756, the village was moved from its original location by the first Earl Harcourt. It was deliberately designed, probably by the Earl himself, on a symmetrical plan combining classical formality with picturesque elements in the design and materials of the semi-detached cottages (A Guide to the Planning Legal Agreement Nuneham Courtenay).
- 9.2.10 Except for the new development at the north of the village, the village hall, and one later house on the west side of the street, the village was designed by Harcourt to complement his landscaped park and his classical house. It is one of only two examples in the country of a completely planned estate village (A Guide to the Planning Legal Agreement Nuneham Courtenay). The village and its environs, meaning the landscaped park, are considered nationally important because of their unique architectural, historic, and artistic elements.
- 9.2.11 The site is located c 270m to the south of the Conservation Area. There is intervisibility between the site and the conservation area, as the southern boundary of Nuneham Courtenay Conservation Area coincides with Lock Wood. This wood is located over a ridge immediately to the north of the site, forming the background of the landscape. However, the village (the focus of the Conservation Area) is located behind the northern ridge, and it is not visible from the site due to the topography of the area.

### Listed Buildings

### Culham Station Ticket Office (OA 3)

9.2.12 Culham Station Ticket Office is a Grade II\* Listed Building designed by Brunel for the Great Western Railway, probably at the same time as the Thame Lane Bridge. Built as 'Abingdon Road Station', it was renamed 'Culham Station' in 1856. This station is considered to be significant due to its architectural and historic interest which are derived from the fact that it is reputed to be the unique survival out of four of this station design known as the domestic Tudor style, and more broadly one of the few Brunel-designed stations surviving.



9.2.13 Culham Station Ticket Office is located 1km to the south of the site. Due to the intervening distance and surrounding planting and development, there is no intervisibility between either the site or this listed building.

Thame Lane Bridge (OA 1)

- 9.2.14 Thame Lane Bridge is the Grade II Listed Building built in 1843–4 by Brunel for the Didcot-Oxford line. The flying segmental arch road bridge is a rare architectural feature, opposed to the more common larger triple arches. Its historic interest lies in the fact that it was an early subsidiary line, built under Brunel, giving Great Western Railways access to the Midlands in rivalry with the London and Birmingham railway. This bridge is considered to be significant due to its architectural and historic interest which are derived from its unusual architectural features, its survival without major works or alterations, its connection to the important historic figure Isambard Brunel, and the Didcot-Oxford line's role in the history of the Great Western Railway. The Great Western Railway, founded in 1833, ran from London to Bristol, and in the 1840s decided to open a route to the Midlands through Didcot and Oxford, in open rivalry with the London & Birmingham Railway.
- 9.2.15 The site is located *c* 170m to the east of the Thame Lane Bridge. Due to the intervening distance and surrounding planting and development in the form of an electricity pylon, there is little intervisibility between the site and this listed building.

## Fullamoor Farmhouse (OA 2)

- 9.2.16 The 18th-century Fullamoor Farmhouse is a Grade II Listed Building that possibly originated in the 17th century. It was named Clifton Farm on the 1st edition (1830) OS map. The high-quality construction of the east-west range may reflect the prosperity of the farm during the mid to late 18th century. This building is considered to be significant because of its architectural and historical interest, which are derived from its architectural features, its age, and the survival of the historic fabric within the building. It also provides insight into the changing needs and social aspirations of its owners.
- 9.2.17 The site is located c 1.2km to the north of this listed building. Due to the intervening distance and surrounding planting and development, there is no intervisibility between the site and this listed building.

### Local Heritage Assets

- 9.2.18 Station House (**OA 64**) is the only locally listed building within the study area. It was thought to have been possibly designed by Brunel. It is built in red brick with English bond brickwork. The 1901 census records the then Station Master, George William Townsend and his wife Louise, as boarding with Charles Lewis and family at 'Station House'. Its historical interest is due to the possible connection with Brunel; accordingly, this asset is considered to be of moderate historic interest/significance.
- 9.2.19 The site is located at c 1km to the north of this locally listed building. Due to the intervening distance and surrounding planting and development, there is no intervisibility between the site and this listed building.



## 9.3 Archaeological Potential

9.3.1 The site has recently been subject to a programme of archaeological works (including evaluation trenching), the results of which have increased understanding of the archaeological potential of the site and its environs. The process of evaluation has clarified the archaeological potential of the site. The results of the evaluation are set out in a separate evaluation report (OA 2025).

## 9.4 Historic Landscape Character

- 9.4.1 The site is situated between Nuneham Courtenay Park and Garden in the north and the Culham Science Centre in the south and east. These are respectively characterised by the Oxfordshire HLC as a designed landscape and an area of Industry. The Park and Garden includes Lock Wood (formerly Park Wood), which was possibly planted before the 17th century, and Furze Brake (formerly the Gorse), a 19th-century plantation.
- 9.4.2 The north-eastern part of the site is described by the OHLC as 'Ornamental Parkland/Designated Landscape'. As this area falls within the designated area of the Park and Garden, it is considered to be of high significance. However, the modern development/reorganisation of this part of the site have led to the removal of the historic southern boundary of the park (and the historic parish boundary) and has resulted in the loss of the 'Brownian' Parkland character of this area. As a result, the part of the site that falls within the Registered Park and Garden has the appearance of post-medieval/modern organised fields.
- 9.4.3 The creation of the airfield and the Science Centre in the modern period led to the reorganisation of the enclosures within the site and its environs and the loss of historical field boundaries. The southern part of the site is described by the OHLC as 're-organised enclosure' and the eastern part of the site is described as 'Industry' and forms part of the Culham Science Centre Complex. These Historic Landscape Character types are considered to be of low (local) significance.

# **10 POTENTIAL IMPACTS**

### 10.1 Introduction

10.1.1 In accordance with Step 3 of Historic England's *The Setting of Heritage Assets* (2017) this section summarises/assesses the effects of both the Application Scheme and Appeal Scheme upon designated and nondesignated heritage assets and their setting

### 10.2 The refused Application Scheme

10.2.1 Previous proposals for a Battery Energy Storage System within the site were submitted to SODC as part of planning application ref. P24/S1498/FUL. The previous application (which entailed the erection of a connection tower within the Registered Park and Garden) was refused by the SODC. The SODC and Historic England comments upon the scheme have been summarised in section 3 above. Both the SODC comments and the Historic England



response highlighted that the industrial nature of the development would encroach into the Nuneham Courtenay Grade I Registered Park and Garden, and as such the proposals would result in a significant adverse impact upon the condition and setting of the Grade I registered park.

- 10.2.2 A full assessment of the effect of the refused Application Scheme upon the condition and setting of designated and non-designated heritage assets was undertaken as a part of the previously supplied (March 2024) HIA, which was submitted as supporting documentation for the previous planning application (P24/S1498/FUL). The full findings of this report are not replicated here; however, its conclusions (with regards to the potential effect upon the Registered Park and Garden) are summarised below:
  - i. The refused Application Scheme would extend into the Grade I listed Nuneham Courtenay Park and Garden and would therefore have temporary and lasting effects upon the registered park and garden.
  - ii. The Registered Park and Garden is considered to be of high (national) significance. However, the quality of the historic landscape of the parkland within the site has been eroded by the loss of original parkland features and planting. Its original setting has also changed by the urbanisation and industrialisation of the landscape to the south resulting from Culham Science Centre. The proposed landscaping in the southern part of the Registered Park and Garden would help to screen this more industrial landscape from the rest of the park.
  - iii. The installation of a proposed connection tower within the Registered Park and Garden would have a direct effect on the character and appearance of this asset. However, the connection tower will be discretely located and seen in the context of an existing high-voltage overhead transmission line which passes through the Registered Park and Garden.
- 10.2.3 Overall, it was concluded that the backdrop of the existing Culham Science Park and the industrial nature of the landscape south of the site would reduce the impact of the proposed development and as such the facility would only introduce a minor impact on the Registered Park and Garden.

### 10.3 The Appeal Scheme

- 10.3.1 In the Appeal Scheme (Fig. 24) the proposed development has been revised to respond to the concerns raised by SODC and Historic England in response to the refused Application Scheme (see above; RFR-3, SODC Decision Notice).
- 10.3.2 Key changes to the scheme to address the heritage concerns raised by the SODC and Historic England comprise:
  - i. The relocation of the connection tower to the main battery storage compound (outside the Registered Park and Garden). The proposed connection tower will be installed next to an existing electricity pylon, located in the southern part of the site and is notably shorter (c 1/3 in



- ii. Updates to the landscaping proposals, to abandon the use of 'artificial bunds'; to extend woodland planting further south along the western boundary of the site.
- 10.3.3 The naturalistic tree belt along the former park boundary have been retained within the Appeal Scheme. However, in response to the SODC and Historic England comments the woodland would no longer be sited on top of artificial bunds and the shape of the proposed woodland has been altered to more closely reflect the historic woodland layout.
- 10.3.4 It is anticipated that the proposed development will result in groundworks associated with the following principal activities:
  - Excavation of foundation and utilities trenches
  - Construction of either a temporary works or permanent access road
  - Removal and redirection of stone access track (Thame Lane)
  - Excavation of attenuation ponds

• Landscaping and ecological works, at the southern extent of the Registered Park and Garden, including the reinstation of the 19th-century treeline along the southern boundary of the park as a means of screening, and

• Levelling/soil management of the site prior to construction.

### 10.4 Assessment of the Appeal Scheme

### Designated Heritage assets

- 10.4.1 The site extends into Nuneham Courtenay Park and Garden. Direct impacts upon the Registered Park and Garden will include tree planting and landscaping along the southern boundary of the park, the installation of an attenuation/wildlife pond in the centre of the site, and the replacement of a farm track with a new macadam surface (4.5m wide) in the north-eastern part of the site. The historic loss of woodland and tree planting as well as the modern agricultural character of the southern part of the park has contributed, in part, to a general loss of the historic parkland character in this part of the Registered Park and Garden.
- 10.4.2 In response to the Historic England comments upon the refused Application Scheme which stated that the proposed landscaping within the Registered Park and Garden, particularly the artificial bunds, were 'historically inaccurate and insensitively designed', the landscaping proposals have been altered in favour of more naturalistic landscaping design which is more in keeping with Brown's park layout. The artificial bunds have been removed from the scheme and the landscape proposals will seek to change the land use in this part of the Registered Park and Garden to better reflect the original character of this part of the park. The proposed tree planting along the southern boundary of the park will replicate a stretch of historic woodland that formerly marked the south-western boundary of the Registered Park and Garden.



- 10.4.3 The development, therefore, presents an opportunity to reinstate the parkland character of this part of the Registered Park and Garden which would enhance the significance of the Registered Park and Garden. The proposed woodland in this area would broadly follow the layout of the woodland shown in the park on Davis's 1797 map of Oxfordshire (Fig. 6). The proposed woodland would define the historic park boundary (and former parish boundary) and would screen the park and conservation area (north of the site) from the more industrial elements of the scheme (south of the site). It would also reinstate a lost area of woodland from the 18th- and 19th-century park as far possible, given modern-day constraints.
- 10.4.4 The introduction of a new attenuation/wildlife pond, while likely of biodiversity value, is not considered to be of particular heritage value. There is no historic evidence to suggest that a pond was, or has ever been, present within this part of the Registered Park and Garden. However, its inclusion would not significantly affect the character of this part of the Registered Park and Garden. The inclusion of the pond as part of the proposed landscaping in this part of the site would have a neutral impact upon the heritage significance of the Registered Park and Garden.
- 10.4.5 The resurfacing of an existing farm track, in the north-eastern part of the site, with a new macadam surface would be unlikely to change the character of this part of the park. Furthermore, this surface is set to replace an equivalent section of residual WWII concrete access track (which has been beneficially removed) and will maintain access to the land further north of the site. This surface, therefore, would have a neutral impact upon the significance of the Registered Park and Garden.
- 10.4.6 Overall, the revised landscaping proposals as set out in the Appeal Scheme would help to re-instate the original character of the Registered Park and Garden and would have a direct beneficial effect on this asset.
- 10.4.7 The proposed development has the potential to indirectly affect the Nuneham Courtenay Park and Garden and the Nuneham Conservation Area (which overlaps with the northern part of the Registered Park and Garden) by changing their setting.
- 10.4.8 The proposed development set out in the Appeal Scheme will increase the industrialisation of the landscape to the south of the park through the construction of the battery storage facility and connection tower, which will be located next to the Culham Science Centre. Historic England and SODC (in their comments on the refused Application Scheme) noted that the loss of the green space in the southern part of the site would be harmful to the setting of the Registered Park and Garden as it would remove an area of green space that, at present, acts to separate the Registered Park and Garden from the more industrial landscape to the south (Culham Science Centre). The Historic England and SODC comments state that the green space separating the park from the Culham Science Centre allows the park to be considered as a separate entity that isn't encroached upon by industrial development. This sense of separation will be eroded by the proposed development, however the proposed woodland planting along the edge of the Registered Park and Garden will help reduce this loss of



separation by defining the edge of the Registered Park and Garden and physically separating it from the industrial landscapes to the south.

- 10.4.9 The proposed development will also introduce battery storage units into views looking south from the Registered Park and Garden and from the edge of the conservation area. This would reduce the arable landscape visible from these assets. However, the proposed tree planting along the southern boundary of the park would help to screen the proposed development in these views. Any remaining views would be experienced against the backdrop of an existing industrial complex, the Culham Science Centre (Plates 4 and 11), and as a result, the proposed development would not significantly alter the character of the existing views.
- 10.4.10 In response to the Historic England and SODC comments the proposed connection tower has been relocated from within the Registered Park and Garden to the southern part of the site, where it will sit next to an existing electricity pylon. The proposed connection tower would be shorter than the existing pylon and would not substantially alter the character of the views looking south from the site as these views already contain the Culham Science Centre and the existing pylon and power line.
- 10.4.11 During construction, the introduction of additional noise, dust and visual disturbance into the environs of the Registered Park and Garden and Conservation Area would have a moderate impact on the setting of these assets. This impact would be temporary and short-term.
- 10.4.12 Overall, The proposed development as set out in the Appeal Scheme, is considered to have a minor adverse impact upon the setting of the Registered Park and Garden and the conservation area.
- 10.4.13 Thame Lane Bridge (**OA 1**) is infrastructure associated with the railway and is industrial in nature. The railway line forms the immediate setting of this asset, and this would not be affected by the proposed development. The increased industrialisation of the site would not significantly alter the character of the views looking north-east from this designated heritage asset. The construction of the battery storage facility would thus have no more than a minor impact upon the setting of the designated listed building.

### Historic landscape

- 10.4.14 The site is described by the OHLC as a combination of post-medieval 'Reorganised Enclosures', in the central/western parts of the site; 'Industrial', in the southern/eastern parts of the site; and as 'Ornamental Parkland/Designated Landscape', in the northern parts of the site (Fig. 23).
- 10.4.15 The proposed development will extend into the 'Ornamental Parkland/Designated Landscape' in the northern part of the site. However, as the proposed development will help to reinstate the parkland character of this part of the site, the scheme would not result in changes the historic landscape character this area.
- 10.4.16 The areas of post-medieval 'Reorganised Enclosures' in the central/western part of the site, will be lost as part of the development and replaced with the



battery storage site. This will change the historic landscape character of this part of the site from 'Reorganised Enclosure' to 'Industrial'.

10.4.17 The industrial (southern/eastern) areas of the site will remain industrial in character.

# 11 CONCLUSION

- 11.1.1 This report serves as an update to a previously supplied (March 2024) report, submitted as a part of a recent planning application (P24/S1498/FUL). This report provides a summary of the assessment of the potential historic environment effects of the refused Application Scheme and assesses the revised proposals set out in the Appeal Scheme. These proposals have been designed to help address concerns cited by SODC in regard to the refused Application Scheme specifically, that this scheme would result in a significant adverse impact upon the Grade I registered Nuneham Courtenay Park and its setting, via encroachment (the erection of a connection tower) and insensitive (historically inaccurate) landscaping designs within the Park and Garden.
- 11.1.2 In the Refused Application Scheme, the connection tower would be placed within the Registered Park and Garden, though would be discreetly located and seen in the context of an existing high-voltage overhead transmission line which passes through the Registered Park and Garden. The Appeal Scheme will address concerns, in part, by relocating the connection tower from Park and Garden, and by updating landscaping proposals so that they are more in-keeping with the 'naturalistic' historic landscape character of the Park and Garden.
- 11.1.3 The site extends into the south-west part of Nuneham Courtenay Registered Park and Garden and lies immediately adjacent to Nuneham Courtenay Conservation Area. The proposed development will introduce a new battery storage unit and a connection tower into views looking south from Nuneham Conservation Area and Nuneham Courtenay Registered Park and Garden. This will increase the industrialisation of this area and reduce the arable landscape visible from these assets. The Culham Science Centre is already visible in views looking south from these assets and as a result, the proposed development would be experienced against the backdrop of an existing industrial complex and thus would not significantly alter the character of these views. The proposed development will result in the industrialisation of green space that, at present, acts to separate the designated areas of the parkland (north of the site) from the industrial areas which make up the Culham Science Centre (south of the site). This separation is considered to be important as it allows the parkland to be considered as a sperate entity. The impact of the proposed development upon this sense of separation and upon the views looking out from the Registered Park and Garden and Conservation Area would be reduced by the proposed landscaping along the edge of the Registered Park and Garden which would help to screen views looking out from the edge of the park and would physically separate the park from the industrial areas to the south. Overall, the creation of the proposed battery storage site (including



the relocated connection tower) is considered to have a minor adverse impact upon the setting of the Registered Park and Garden and the Conservation Area.

11.1.4 The proposed landscaping within the southern part of the Registered Park and Garden would partially reinstate a stretch of woodland which historically marked the southern park boundary. This would enhance the parkland character of this part of the park and garden and would also act to screen the southern part of the site from the Registered Park and Garden and Conservation Area. The proposed landscaping in this area has been altered in response to Historic England and SODC comments on the refused Application Scheme. The artificial bunds have been removed from the proposals and the landscaping and the woodland belt has been extended along the southern boundary of the park. In addition, the landscape proposals include areas of tree planting which better reflect the original character of the park, when compared with the current agricultural land use. Overall, this would have a beneficial effect on the Registered Park and Garden by helping to reinstate the lost character of this part of the park.



# APPENDIX A GAZETTEER OF KNOWN HERITAGE ASSETS WITHIN THE STUDY AREA

# Abbreviations

- LB Listed Building SM Scheduled Monument
- RPG Registered Park and Garden RB Registered Battlefield
- CA Conservation Area
- WHS World Heritage Sites

OA	List Entry	HER	Name and Summary	Monument	Period	Easting	Northing
		Reference		Туре			
1	1409238	N/A	Thame Lane Bridge (DCL5657)	II LB	1843-4	452823	196055
2	1449039	N/A	Fullamoor Farmhouse	II LB	18 <sup>th</sup> century	453355	195099
3	1059789	N/A	CULHAM STATION TICKET OFFICE AND WAITING ROOM	II* LB	1843-4	452920	195276
4	N/A	EOX6778	Geophysical Survey as part of Didcot Garden Town HIF 1 Scheme	GS	2020	451539	193601
5	N/A	EOX2765	Thrupp House Cottages: Investigation	IN	2002-4	451844	197220
6	N/A	EOX7165	Didcot Garden Town HIF 1 Overall Scheme: Didcot to Culham River Crossing (North)	EV	2021	452203	194977
7	N/A	EOX7090	Tuckwell's Gravel Quarry: Investigation	IN	1991-2	452320	197630
8	N/A	EOX6808	Investigation at Thrupp Farm: Investigation	IN	1970-84	452331	197106
9	N/A	EOX925	Watching Brief at Wootton Reline (Scheme 07FC)	WB	1999-2000	452458	197750
10	N/A	EOX6399	Geophysical Survey on Land at Culham	GS	2016	452998	196081
11	N/A	EOX2766	Pumney Farm: Investigation	IN	2001	453220	197529
12	N/A	EOX3202	Evaluation at Fullamoor Farmhouse	EV	2011	453364	195118
13	N/A	EOX1246	Oxford-Didcot Pipeline Watching Brief	WB	1991	453846	196538



14	N/A	EOX7166	Didcot Garden Town HIF 1 Overall Scheme: Clifton Hampden Bypass	EV	2021	453929	195784
15	MOX8589	9943	Palaeolithic Handaxe A small pointed handaxe found at Thrupp House Farm that had passed through a screening plant and rescued by Mr P J Wallis in 1978.	FINDSPOT	Palaeolithic	452000	197000
16	MOX8632	13014	Palaeolithic Handaxes Found in a ditch terminal of a late IA penannular ditch during excavation of 'Thrupp site C' by Abingdon Arch Society in 1979.	FINDSPOT	Palaeolithic	452300	197100
17	MOX8718	15620	Middle Palaeolithic Handaxe Bout coupe style handaxe recovered during gravel extraction found lying at the base of the gravels at Tuckwell's Pit.	FINDSPOT	Middle Palaeolithic	452500	197700
18	MOX28190	29803	Prehistoric to Roman features Archaeological features including ditches, gullies and pits dating to this period were found during evaluation. Later features discussed in PRN29804.	DITCH; PIT; FIELD SYSTEM; POST HOLE	Lower Palaeolithic to Roman	453968	195751
19	MOX23811	26383	Possible Mesolithic - Neolithic Settlement Site, Pumney Farm Over 1700 Neolithic and Mesolithic flints and some bone was found by AAAHS (Abingdon Area Archaeology and History Society) whilst a nature pond was being dug.	HEARTH	Early Mesolithic to Late Neolithic	453220	197529
20	MOX8609	11462	Mesolithic Pick Thames pick found by Mr J P Wallis in bottom of drainage ditch in 1977.	FINDSPOT	Mesolithic	451840	197160
21	MOX8404	2083	Mesolithic Flint Blade (Thrupp Gravel Pit) Flint blade, 10.5cms in length with a pronounced	FINDSPOT	Mesolithic	452440	197150



			curve, rolled and patinated and slightly stained found at Thrupp Gravel Pit c.1986.				
22	MOX8685	13711	Mesolithic Microlithic Blade (S of Pumney Farm) Recovered from borehole 2.5m below modern ground level of sandy clay.	FINDSPOT	Mesolithic	453230	197800
23	MOX8523	7252	Neolithic to Bronze Age Burial and Finds (c.475m SW of junction of railway line) At SW corner of the site a Neolithic landscape was located with accompanying burial.	BURIAL; FINDSPOT	Early Neolithic to Late Bronze Age	452280	197140
24	MOX8696	14368	Neolithic to Bronze Age Arrow/Spearhead Found by Roger Thomas c.1983.	FINDSPOT	Early Neolithic to Late Bronze Age	452300	197200
25	MOX8583	9873	Neolithic to Bronze Age Flint Flakes (SE of Home Farm) 1 untouched flake and 1 rough workshop waste.	FINDSPOT	Early Neolithic to Late Bronze Age	452396	197747
26	MOX8584	9874	Neolithic to Bronze Age Finds (N of viaduct on the River Thames) 2 unretouched flakes, 1 core, 1 miscellaneous retouched flake and 2 scrapers found.	FINDSPOT	Early Neolithic to Late Bronze Age	452616	197298
27	MOX8554	8523	Later Prehistoric or Roman enclosures, linear features and pits Rectangular enclosures, pits, linear features, parallel lines and trackways, and a circle identified from AP's.	RECTILINEAR ENCLOSURE; PIT; LINEAR FEATURE; TRACKWAY; RING DITCH	Early Neolithic to Roman	453956	195252



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28	MOX8625	12584	Neolithic Ring Ditch, Floor Level and Finds	RING DITCH;	Neolithic	452300	197300
			Excavated by Abingdon Arch & Historical Society	FLOOR; FLINT			
			at Thrupp House Farm in advance of gravel	SCATTER			
			workings.				
29	MOX12578	16810	Neolithic pit with Grooved ware, Thrupp House	PIT	Neolithic	452400	197200
			Farm In entrance of MIA hut; about 50 sherds of				
			Durrington Walls style.				
30	MOX10831	13313	Neolithic and Iron Age Settlement, Thrupp Farm	PIT	Neolithic	452500	197200
			Site C 1979. Neolithic occupation revealed by				
			pits within IA enclosures. Also, Palaeolithic				
			handaxe. Excavated.				
31	MOX8571	9260	Bronze Age Pottery (Near Thrupp House Farm)	FINDSPOT	Bronze Age	452100	197100
			Several sherds of beaker pottery were				
			discovered after topsoil had been stripped for				
			gravel digging (site of DMV). No other traces of				
			occupation were found at the site.				
32	MOX27325	28949	Possible Barrow Single circular anomaly- possible	BARROW	Bronze Age	454086	196377
			barrow- identified as a geophysical anomaly.				
33	MOX8620	12061	Iron Age/Roman Gullies, Field Boundaries &	GULLY;	Early Iron	451860	197120
			Ditch Site A 1971. Consists of N-S ditch running	DITCH; FIELD	Age to		
			under the Abingdon branch railway line	BOUNDARY;	Roman		
			containing Roman potsherds, horse teeth and	BURIAL			
			organic material from C1-C3.				
34	MOX12579	16812	Roman ditches, Thrupp House Farm Site A 1984.	DITCH	Early Iron	452000	196993
			Excavations revealed mainly Roman ditches, all		Age to		
			badly damaged during topsoil stripping.		Roman		



35	MOX8519	5641	Undated Enclosures and Pits Cropmarks in a field	ENCLOSURE;	Early Iron	453476	195264
			adjoining the High Road immediately east of	PIT	Age to		
			Fullamoor Farm show a series of lines clearly		Roman		
			marked in the growing corn by their especially				
			luxuriant growth and apparently analogous to				
			those which appear yearly at Northfield Farm,				
			Long				
36	MOX8531	7849	Iron Age Enclosures (c.475m SW of junction of	ENCLOSURE	Iron Age	452282	197126
			railway line) The west part of the site contains at				
			least two enclosures with a possible five.				
37	MOX8622	12236	Iron Age Enclosure, Field Boundary and Trackway	DITCHED	Iron Age	452300	197237
			Site B 1978. 3-sided ditched enclosure aligned E-	ENCLOSURE;			
			W with dog-leg spur ditch continuing from east	FIELD			
			end of enclosure. See also PRN13313 for	BOUNDARY;			
			Neolithic features found.	TRACKWAY;			
				FINDSPOT;			
				SETTLEMENT			
38	MOX12555	16795	Iron Age enclosure at Thrupp Domestic	ENCLOSURE	Iron Age	452320	197630
			enclosure with additional enclosure to N.				
			Extensive animal bone collection.				
39	MOX12573	16811	Iron Age hut gullies, Thrupp House Farm Site E	GULLY	Middle Iron	451800	197100
			1977. Excavations revealed 2 IA hut gullies;		Age		
			presumably continuations of Site A 1984				
			(16812).				
40	MOX8538	8405	Later Prehistoric Enclosures and Beaker Burial	RECTANGULA	Later	452400	197700
			Salvage work in 1972/3 during the destruction of	R	Prehistoric		
			a site by gravel extraction revealed an Iron Age	ENCLOSURE;			

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			round house, beaker burial, pottery, and rectangular enclosures to the NE.	BURIAL; ROUND HOUSE (DOMESTIC)			
41	MOX27323	28947	Series of at least 10 enclosures over two complexes, interpreted as a possible settlement and/or field system, identified as geophysical anomalies.	SETTLEMENT ?; ENCLOSURE; FIELD SYSTEM?; ROUND HOUSE (DOMESTIC)?	Later Prehistoric	452658	195390
42	MOX27324	28948	Possible enclosures, trackway, and barrow Two series of enclosures, one aligned south- west/north-east, and the other aligned south- south-west/north north-east; a possible trackway; and probable barrow identified as geophysical anomalies. Possibly related to PRN15272.	ENCLOSURE; TRACKWAY; BARROW	Later Prehistoric	452787	196225
43	MOX24038	27526	Copper alloy Roman seal matrix found near Culham Found while metal detecting in 2008 and recorded by Surrey FLO.	FINDSPOT	Roman	452000	196000
44	MOX8393	1870	Roman Pots Two pots found in railway cutting in 1844.	FINDSPOT	Roman	452753	196375
45	MOX12229	16525	Possible Boundary Ditch for Lock Wood Feature exposed during relining of pipe trenches. It was visible in two sections and ran north-east to	BOUNDARY DITCH	Roman	453080	196770



			south-west. Broad, flat-bottomed profile (2.8m wide and 0.53m deep). Suggested boundary ditch, possibly connected with the landscaping of Lock Wood.				
46	MOX8403	1892	Anglo Saxon Inhumation Burials "About 1865 during drainage work in the fields called 'Long Hadden and Yards' several human skeletons with battle axes, swords and other similar articles of iron were found." Site is just north of the village of Clifton Hampden and west of footpath	INHUMATION	Early medieval	454450	196050
47	MOX8405	2136	Medieval Rabbit Warren (Warren Farm) Leland notes site of Abbot of Abingdon's rabbit-warren on his way out of Abingdon. Site may be equated with wood called The Warren or possibly with Warren Farm, 1.5km to east.	RABBIT WARREN	Medieval	451900	196300
48	MOX8413	2908	Thrupp Deserted Medieval Village Mentioned in Domesday Book but period of desertion not known. No local tradition or ground evidence of DMV.	DESERTED SETTLEMENT	Medieval	451900	197200
49	MOX28191	29804	Medieval to Post-Medieval Field System Evaluation revealed ditches which were likely remains of a medieval to post-medieval field system as well as earlier features discussed in PRN29803.	FIELD SYSTEM; TRACKWAY	Medieval to Post- medieval	453960	195750
50	MOX28269	29880	The Abingdon Branch line opened in 1856 as a broad-gauge railway and was converted to standard gauge in 1872. Originally opened for 2	RAILWAY	Post- medieval	451234	197410

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			miles between Abingdon and Culham, in 1873 it was extended to Radley, where a new station was opened.				
51	MOX28099	29712	The Oxford and Didcot Branch Railway, although proposed by the GWR in 1833 as part of a plan to improve links to the Midlands, was delayed by the opposition of the Universities on the grounds of corruption of student's morals.	RAILWAY	Post- medieval	451682	198398
52	MOX8611	11538	Thrupp Farm Cottages, Barton Lane C17 house, now three cottages (2 derelict) remodelled mid/late C19.	HOUSE	Post- medieval	451727	197238
53	MOX23998	27487	Post-Medieval Postholes at Fullamoor Farmhouse Two postholes found during evaluation at above location; one contained Post Med belt buckle.	POST HOLE	Post- medieval	453350	195100
54	MOX8386	307	Site of Canal Lock and Cottages No longer extant.	CANAL LOCK; HOUSE	Post- medieval	453390	197432
55	MOX8607	11251	Milepost on A415 Abingdon 4 Henley 17.	MILEPOST	Post- medieval	454270	195430
56	MOX27644	29258	Four distinct complexes of enclosures and trackways identified by geophysical survey.	ENCLOSURE; TRACKWAY?	Undated	452307	196444
57	MOX8710	15272	Series of field systems and associated features Undated possible field System and pits identified from RCHM gravels overlay and series of multiple enclosures identified by geophysical survey. Possibly related to PRN28948.	FIELD SYSTEM?; PIT; ENCLOSURE; TRACKWAY	Undated	452668	196102



58	MOX27643	29257	Possible archaeological features Potential	LINEAR	Undated	453671	196217
			archaeological features identified during	FEATURE			
			geophysical survey.				
59	MOX27320	28944	Possible D-shaped enclosure with a possible	D SHAPED	Undated	451820	196197
			entrance to the north-east corner identified as a	ENCLOSURE			
			geophysical anomaly.				
60	MOX27321	28945	Possible irregular (subcircular) enclosure and	CURVILINEAR	Undated	452171	195830
			ring gully identified as geophysical anomalies.	ENCLOSURE;			
				RING DITCH			
61	MOX27497	29118	Undated parallel ditches and enclosure visible as	DITCH;	Undated	454184	195403
			cropmarks on AP's.	ENCLOSURE			
62	N/A	N/A	South drive to Nuneham Park and Garden	SOUTH DRIVE	Post-		
			identified on OS maps		medieval		
63	N/A	N/A	Former Abingdon Lodge	LLB	N/A		
64	N/A	N/A	Station House	LLB	N/A	452951	195278
65	N/A	N/A	Evaluation at land east and west of railway	EV	2022		
66	N/A	N/A	Earthworks visible on LiDAR	EARTHWORK	Undated	452797	196470
67	N/A	N/A	Magnetometry survey carried out within the site	MS			
			in February 2023				
68	N/A	N/A	Magnetometry survey carried out within the site	MS			
			in 2022				

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Figure 1: Site location



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Figure 2: Designated heritage assets



Figure 3: Previous archaeological events

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Figure 4: Non-designated heritage assets



Figure 5: Extract from Roque's map of Berkshire (1761)



Figure 6: Extract from Davis's map of Oxfordshire (1797) (not to scale)



Figure 7: Extract from the pre-enclosure plan of the parish of Culham (1802) (Ref. SL121/M/1 as held at the Oxfordshire History Centre)



Scale:



Figure 8: Extract from the Ordnance Survey County Series map 1:10560 (1875)



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Scale:



Figure 9: Extract from the Ordnance Survey County Series map 1:10560 (1900)



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Figure 10: Extract from the Ordnance Survey County Series map 1:10560 (1910)



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Figure 11: Extract from the Ordnance Survey Provisional map 1:10560 (1960)



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Figure 12: Extract from the Ordnance Survey National Grid map 1:10000 (1975)





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Scale:



Figure 13: Extract from the Ordnance Survey National Grid map 1:10000 (1982)



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Figure 14: Extract from the Ordnance Survey National Grid map 1:10000 (1992)



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Figure 15: Extract from the Ordnance Survey National Grid map 1:10000 (2001)



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Map date:

Scale:



Figure 16: Extract from the Ordnance Survey National Grid map 1:10000 (2010)



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Grid Ref:

Map date:

Scale:



Figure 17: Extract from the Ordnance Survey National Grid map 1:10000 (2022)



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Figure 18: NMP data and Aerial Photographs interpretation



C:\Users\domiziana.ross\Desktop\Culham\CUBSDBA Fig.19 LiDAR.mxd\*domiziana.rossf\*27/04/2023 

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Figure 19: Multi hill-shade LiDAR visualisation





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Figure 20: SLRM LiDAR visualisation



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Figure 21: Multi hill-shade LiDAR visualisation with interpretation



Figure 22: Previous impact (APs Ref. RAF.106G.LA.59 as held by Historic England at Swindon Archive )



Figure 23: Historic Landscape Character





Figure 25: Interpretation of the geophysical plot from the 2016 survey, with additions of features identified from LiDAR and APs



Figure 26: Interpretation of the geophysical plot from the 2022 and 2023 survey, with additions of features identified from LiDAR and APs



Plate 1: South-west corner of the site, looking towards the Registered Park and Garden (facing north)



Plate 2: South-west corner of the site, looking towards the Registered Park and Garden (north-east)



Plate 3: South-west corner of the site, looking towards the Registered Park and Garden (facing east)



Plate 4: View from the boundary of the Registered Park and Garden, looking towards the Culham Science Park (facing south-west)



Plate 5: View towards the north-west part of the site and earthwork identified by LiDAR analysis (facing north-west)



Plate 6: South-east corner of the site, looking towards the Registered Park and Gardnen (facing north)



Plate 7: View towards the north part of the site, feature identified by LiDAR analysis and Lock Wood coppice (facing north)



Plate 8: View towards the north-west part of the site from the southern boundary of the Registered Park and Garden (facing north-west)



Plate 9: View towards the north part of the site and Lock Wood from the southern boundary of the Registered Park and Garden (facing north-east)



Plate 10: View towards the site and the Registered Park and Garden from the west, the proposed location of the STRAT9 housing development (facing north-east)



Plate 11: View towards the site, the proposed location the STRAT9 housing development and the Culham Science Park from the boundary of the Registered Park and Garden (facing south-west)



Plate 12: View towards the development area from the centre of the Registered Park and Garden, approximately 1.8km north-east of the site (facing south-west)



Plate 13: Extract of Aerial Photograph Ref. US/13PH/581 (June 1943) as held by Historic England at Swindon Archive



Plate 14: Extract of Aerial Photograph Ref. US/7PH/GP/LOC107 (December 1943) as held by Historic England at Swindon Archive



Plate 15: Extract of Aerial Photograph Ref. SU5396/5 (2000) as held by Historic England at Swindon Archive



Plate 16: Extract of Aerial Photograph Ref. SU5396/7 (2006) as held by Historic England at Swindon Archive

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