SDC | M40 CAMPUS

Slough Holdings UK Limited

Environmental Impact Assessment Scoping Report

April 2026

Slough Holdings UK Limited is a wholly-owned subsidiary of affiliated investment funds managed by SDC Capital Partners, LLC.

SDC M40 Campus
EIA Scoping Report

Prepared for:
Slough Holdings UK Ltd

Date:
April 2026

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EXECUTIVE SUMMARY

i. The SDC M40 Campus project (referred to as the Proposed Development) will provide both a Data Centre Campus (comprising of three individual data centres with associated office space and fuel storage) and an integrated energy generation centre (the 'Energy Centre'), with associated infrastructure, access and extensive landscaping across the Site. The Energy Centre will supply the electricity required to the Data Centre Campus. The gas fuelled Energy Centre will be designed in compliance with Government technology requirements on decarbonisation readiness. A Waste Heat Recovery / District Heating plant may also be included, to utilise heat generated by the Energy Centre and / or Data Centre Campus, with the potential for this to be used by surrounding uses (including residents, schools, agriculture etc).

ii. Given the Site's former use as a landfill, ongoing maintenance and management of the landfill will be required during the construction and operation of the Proposed Development. This will be undertaken in accordance with Environment Agency licence requirements.

iii. The Energy Centre is a 'Nationally Significant Infrastructure Project' (NSIP) for which development consent is required from the Secretary of State under the Planning Act 2008 (the PA 2008). Further to a qualifying request submitted by the Applicant in relation to the Data Centre Campus, the Secretary of State has given a direction under section 35 of the PA 2008. The direction provides that the Data Centre Campus is to be treated as development for which development consent is required. The Applicant is intending on bringing forward and submitting a single application for a development consent order (DCO) under the PA 2008 in respect of the Proposed Development as a whole.

iv. The Data Centre Campus and Energy Centre are functionally interdependent and being brought forward by the Applicant on the same site. Accordingly, for EIA purposes the Data Centre Campus and Energy Centre are properly to be regarded as a single project – the Proposed Development.

v. As the potential for likely significant environmental effects has been identified, the Proposed Development is considered to constitute 'EIA development' under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the IP EIA Regulations 2017). An Environmental Impact Assessment (EIA) Scoping Report has therefore been prepared (this document) to request an opinion from the Planning Inspectorate (on behalf of the Secretary of State) as to the scope and level of detail of the information to be provided in the Environmental Statement which will be submitted with the DCO application. This Scoping Report has been prepared in compliance with the IP EIA Regulations 2017and relevant guidance.

vi. As set out in further detail within this report, the EIA Scoping Report sets out what topics are proposed to be 'scoped in to' and 'scoped out of' the EIA. The following topics are proposed to be scoped into the EIA:

   a. Air Quality;
   b. Climate Change and Greenhouse Gases
   c. Ecology and Biodiversity;
   d. Ground Conditions and Land Contamination;
   e. Built Heritage;
   f. Landscape and Visual Impact;
   g. Project Vulnerability (Major Accidents and Disasters);
   h. Noise and Vibration; and

i. Socio-Economics.

vii. The following topics are proposed to be scoped out of the EIA:

a. Archaeology;
b. Human Health;
c. Odours;
d. Traffic and Movement;
e. Waste and Materials; and
f. Water Resources and Flood Risk.

PROJECT TEAM

Applicant
Slough Holdings UK Limited[1]

Land Ownership, Water, Technical Operations and Landfill
Veolia

Architect
Reid Brewin Architects

Planning Consultant
Montagu Evans

MEP Engineer
Black & White

Landscape / LVIA
Scarp

Energy Centre Design
Fingleton White

Civil / Structural Engineer
Terrell Group

Ecology
Bioscan

Transport
Velocity

Fire Safety Consultants
Bureau Veritas

Acoustics
RF Environmental

Air Quality
RF Environmental

Socio-Economics
Montagu Evans

Health and Equalities Consultant
Trium

Heritage Assessment
Montagu Evans

Project Manager
Ridge & Partners

Communications and Consultation
Camargue

Strategic Public Affairs
QLT Strategic

Topography and GPR
Greenhatch

Flood Risk and Drainage
Terrell Group

Ground Conditions
Terrell Group

EIA Consultant
Trium

Arboricultural
Barten Hyett

Archaeology
RPS (TetraTech)

Climate Change
Air Quality Consultants Ltd (Logika Group)

Utility Consultant
Premier Energy

Waste
Velocity

Fuel Consultant
Arthian

Security Consultant
Secured Projects

Major Accidents and Disasters
Arup

[1] Slough Holdings UK Limited is a wholly-owned subsidiary of affiliated investment funds managed by SDC Capital Partners, LLC.

KEY TERMS OF REFERENCE FOR THE EIA SCOPING REPORT

Affected Person	Affected persons are people or organisations who own or have an interest in the land that could be affected by a project.
Applicant	The organisation that submits an application for a development consent order to the Planning Inspectorate; Slough Holdings UK Ltd, a wholly-owned subsidiary of affiliated investment funds managed by SDC Capital Partners, LLC.
Development Consent Order (DCO) Application	The Applicant's application for a development consent order, which consists of a series of documents and plans which are published on the Find a National Infrastructure Project website[2].
Development Consent Order (DCO)	A statutory order which provides consent for the project and means that a range of other consents, such as planning permission and listed building consent, will not be required. A DCO can also include powers authorising the compulsory acquisition and the temporary possession of land and rights over land which is the subject of an application. A draft DCO is submitted by the applicant as part of its application.
Development Consent Order Requirement	A requirement under the development consent order which is proposed to control the construction, operation and maintenance of the development if it is consented.
Environmental Impact Assessment (EIA)	A process of identifying and assessing the significant effects likely to arise from a project. It requires consideration of the likely changes to the environment, where these arise because of the project, through comparison with existing and future conditions and describing any mitigation measures which are required.
Environmental Statement (ES)	A report, prepared by the Applicant, in which the process and results of the environment impact assessment are documented. The Environmental Statement is submitted by the applicant as part of the application.
Examining Authority (ExA)	Appointed by the Planning Inspectorate on behalf of the Secretary of State to carry out the examination of the DCO application.
Interested Party	A person or organisation (i.e. the Applicant, Affected Persons and certain statutory bodies) with special rights in the Planning Act 2008 process, who has the right to: a. Be invited to a preliminary meeting; b. Request to speak at an open floor hearing; c. Make further written representations; d. Be notified when the examining authority has completed its examination; and e. Be notified of the reasons for the decision by the secretary of state about whether the development consent order should be approved or refused.

[2] *Available from: https://national-infrastructure-consenting.planninginspectorate.gov.uk/. Accessed: 6 October 2025.*

IP EIA Regulations 2017	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 under which the EIA for the Proposed Development will be undertaken.
Main Development Area	The main parcel of development land that will deliver the Data Centre and Energy Centre components of the Proposed Development, excluding the landscaping and access arrangements.
National Policy Statement	Set out the policy framework for the development of nationally significant infrastructure projects.
Nationally Significant Infrastructure Project (NSIP)	Nationally Significant Infrastructure Projects are large scale major development projects in England or Wales which require permission under the Planning Act 2008.
Order Limits	The geographic limits of the powers the Applicant is seeking through the DCO. The Order Limits are typically identified by a continuous red line on plans provided within the application. This is also referred to as the 'Site boundary'. Both terms (i.e. Order Limits and 'Site boundary') are used in this EIA Scoping Report. The 'Site' refers to the area within the Order Limits. Unless stated otherwise, contextual references to the Site in this EIA Scoping Report, such as distances of features and receptors, are reference to the Site boundary / Order Extents.
Planning Act 2008	UK legislation that established a streamlined process for approving Nationally Significant Infrastructure Projects in areas like energy, transport, water, wastewater and waste. It introduced National Policy Statements which set out government policy for different types of infrastructure.
Project	This is the Proposed Development for which planning consent is being sought through the DCO application. The term 'Project' is used interchangeably with the term 'Proposed Development' throughout this Scoping Report.
Relevant Representation	There are three types of representations that can be made about a Nationally Significant Infrastructure Project (NSIP); a. Oral representation: spoken evidence provided at a hearing, which must be based on either the relevant representation or written representations already made; b. Relevant representation: detailed comments about an NSIP; and c. Written representation: an opportunity for interested parties to add to the comments in their relevant representation and provide further evidence if necessary.
Site	The area shown within the red line boundary (Proposed Order Limits) on Figure 1 in **Appendix 1: Figures**, and which is the area being sought for approval for development as part of the DCO application.
Statutory Body	An organisation established by law with specific expert responsibilities or local knowledge, e.g. Natural England or Historic England.

Wider Ownership Area	The area shown within the blue line boundary on Figure 1 in **Appendix 1: Figures**, and which encompasses the Applicant's ownership boundary area.

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1. INTRODUCTION

1.1. Overview and Background

1.1.1. Slough Holdings UK Ltd (hereinafter referred to as the 'Applicant') is bringing forward proposals for the redevelopment of an area of land located within the administrative boundary of Buckinghamshire Council (BC) ('the Site'). This EIA Scoping Opinion Request Report ('EIA Scoping Report') has been prepared by Trium Environmental Consulting LLP ('Trium'), as EIA Consultants appointed by the Applicant.

1.1.2. 'The Site', identified in Figure 1 in **Appendix 1: Figures** within the Proposed Order Limits (denoted by the red line boundary within this figure), comprises approximately 75.6 hectares (ha) of land, which is designated as Green Belt, located north of the M40 motorway and south of the A40 Oxford Road. It has a history of landfill activities and mineral extraction, and is currently operated by Veolia for the landfilling of inert building waste (albeit the Site no longer accepts any forms of landfill waste). There is an existing gas-powered (methane) energy centre on-site. The Site comprises vegetation around the southern, eastern and western ends, with ten existing ponds within the Site boundary. The central area of the Site comprises the ongoing landfill operations with associated buildings and infrastructure. A detailed site description is provided further below. The 'Wider Ownership Area' is shown by the Applicant's ownership boundary, as indicated by the blue line on Figure 1 in **Appendix 1: Figures**. A map showing the location of the Site with reference to National Grid References is shown in Figure 2 in **Appendix 1: Figures**, whilst the location of the Site on a broader geographical scale is shown in Figure 3 in **Appendix 1: Figures**.

1.1.3. The Project broadly comprises a Data Centre Campus of three units, together with an integrated on-site energy generation centre and associated development including access and landscaping. The Energy Centre will generate electricity from gas turbines to provide resilient and reliable power supply to the Data Centre Campus, mitigating pressure on local infrastructure and enabling the demand for data centre development to be met efficiently. The Project will incorporate a decarbonisation-readiness strategy. The main parcel of development land that will deliver the Data Centre and Energy Centre components of the Proposed Development, excluding the landscaping and access arrangements, is referred to as the Main Development Area (refer to Figure 4 in **Appendix 1: Figures**) and covers an area of approximately 22.3 hectares, located on the southern boundary alongside the M40.

1.2. Planning Regime

1.2.1. The generating capacity of the Energy Centre means that it is a Nationally Significant Infrastructure Project (NSIP) under sections 14(1)(a) and 15(2A) of the Planning Act 2008[3] (hereafter referred to as the 'PA 2008'). The Energy Centre component a) is in England, b) does not generate electricity from wind or directly from sunlight, c) is not an 'offshore' generating station, and d) has a capacity of more than 50 megawatts. Development consent under the PA 2008 is therefore required for the Energy Centre component of the Project (as per section 31 of the PA 2008). An application will therefore need to be submitted for a Development Consent Order (DCO) in respect of the Energy Centre component of the Proposed Development.

1.2.2. In addition, with reference to the Data Centre Campus, under section 35 of the PA 2008, the Secretary of State (SoS) may give a direction for development to be treated as development for which development consent is required if, amongst other things, it is a business or commercial project of a prescribed description and is of national significance. The Infrastructure Planning (Business or Commercial Projects) Regulations 2013[4] (**the 2013 Regulations**) is the legislation which describes the business or commercial projects which are prescribed for this purpose. The Infrastructure Planning (Business or Commercial Projects) (Amendment) Regulations 2026[5] (**the 2026 (Amendment) Regulations)** introduced 'Data centres' in the 2013 Regulations and therefore, as of 8 January 2026,

[3] *Available from: https://www.legislation.gov.uk/ukpga/2008/29/contents. Accessed: 9 October 2025.*
[4] *Available from: https://www.legislation.gov.uk/uksi/2013/3221/contents/made. Accessed: 9 October 2025.*
[5] *Available from https://www.legislation.gov.uk/uksi/2026/13/introduction/made. Accessed 19 January 2026.*

data centres are prescribed as 'business or commercial projects' under the NSIP consenting regime. Data centres can therefore be consented within the PA 2008 regime.

1.2.3. On 21 January 2026, the Applicant submitted a qualifying request to the Secretary of State for a direction under section 35 of the PA 2008 in respect of the Data Centre component of the Proposed Development. The Secretary of State gave a direction on 17 March 2026, which provided that the Data Centre Campus is to be treated as development for which development consent is required. As such, it is the Applicant's intention to bring forward and submit a single DCO Application under the PA 2008 for the Proposed Development as a whole.

1.3. EIA Regime

1.3.1. The legal basis for EIA lies in Directive 2011/92/EU (the 'EIA Directive')[6]. The EIA Directive is retained EU law and has been transposed into domestic law through various regulations which apply to different consenting regimes; in this case, the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (**the IP EIA Regulations 2017**)[1].

1.3.2. The Data Centre Campus and Energy Centre are functionally interdependent and they are being brought forward by the Applicant on the same site. Consequently, for EIA purposes the Data Centre and Energy Centre (together with associated development) are properly to be regarded as a single project and assessed as such. This is consistent with relevant case law. This EIA Scoping Report has therefore been prepared on the basis that an EIA will be required for the Proposed Development and that the likely significant environmental effects of the Proposed Development will be dealt with under a single assessment and reported on as a single overall project.

1.3.3. 'EIA development' is defined by the EIA Regulations as either; 'Schedule 1 development' or 'Schedule 2 development likely to have significant effects on the environment by virtue of factors such as its nature, size or location'. 'Schedule 1 development' in the IP EIA Regulations 2017 means development (other than exempt development) of a description set out in Schedule 1 to the Regulations. In effect any project falling within any description set out in Schedule 1 is automatically 'EIA development'.

1.3.4. Consideration of how the Proposed Development is considered to be 'EIA development' under each of the applicable EIA Regulations is set out below:

a. Energy Centre – this is considered to be 'EIA development' under Regulation 3(1) of the IP EIA Regulations 2017. This is on the basis of the paragraph 2(2) of Schedule 1 ("*…other combustion installations with a heat output of 300 megawatts or more.*"); and

b. Data Centre Campus – this is considered to fall within Schedule 2 to the IP EIA Regulations 2017. In particular, paragraph 10(a) of Schedule 2 refers to "*industrial estate development projects;*" and paragraph 10(b) "*urban development projects, including the construction of shopping centres and car parks, sports stadiums, leisure centres and multiplex cinemas*". Based on the scale and nature of the proposals, and the potential for likely significant effects, the Data Centre Campus component is considered to comprise 'EIA development'.

1.3.5. An Environmental Statement will therefore be prepared in respect of the Proposed Development, for the DCO application. This EIA Scoping Report therefore supports a request to the Secretary of State for a Scoping Opinion under Regulation 10 of the IP EIA Regulations 2017.

1.3.6. In parallel with the EIA Scoping Report submission to the Secretary of State, a notification has been issued pursuant to Regulation 8(1)(b) of the IP EIA Regulations 2017, confirming that the Applicant proposes to provide an ES in respect of the Project.

1.3.7. Regulation 10 of the IP EIA Regulations 2017 sets out the legislative requirements for an EIA Scoping Report; PINS Advice Note 7 similarly sets outs a list of information to be provided with a scoping request.

[6] *Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU.*

A ‘wayfinding’ table has been provided at Table 1 below, identifying where in this document each of the legislative requirements under Regulation 10, and requirements of Advice Note 7, are provided.

Table 1 Location of Information within this EIA Scoping Report

Information for Inclusion in an EIA Scoping Report	Where the EIA Scoping Report Addresses the Information Specifications
Regulation 10 of the IP EIA Regulations 2017	
10 (3) (a) a plan sufficient to identify the land;	Appendix 1 – Figures.
10 (3) (b) a description of the proposed development, including its location and technical capacity;	Section 3 – The Proposed Development.
10 (3) (c) an explanation of the likely significant effects of the development on the environment; and	Section 6 – Potentially Significant Environmental Effects. This section provides detailed ‘topic sheets’ for each technical topic proposed to be scoped in to the EIA, which set out where significant effects are considered likely as a result of the Proposed Development, and therefore where detailed assessment will be undertaken within the ES.
10 (3) (d) such other information or representations as the person making the request may wish to provide or make.	All other sections of this EIA Scoping Report.
PINS Advice Note 7	
Paragraph 5.2 of PINS Advice Note 7 sets out the requirements under Regulation 10 of the IPA EIA Regulations 2017, as set out above. As such, these requirements are not restated here.	
PINS Advice Note 7 – Insert 2	
An explanation of the approach to addressing uncertainty where it remains in relation to elements of the Proposed Development e.g. design parameters;	Section 5.2 – Parameters-Based Approach
Referenced plans presented at an appropriate scale to convey clearly the information and all known features associated with the Proposed Development;	Appendix 1 – Figures: Figure 1. It should be noted that all known features associated with the Proposed Development (i.e. the Energy Centre, Data Centre Campus and Substation) are shown indicatively in Appendix 1 – Figures: Figure 1.
an outline of the reasonable alternatives considered and the reasons for selecting the preferred option;	Section 3.2 – Overview and Need. This section sets out the need for the Proposed Development, including why the Site is considered an appropriate location for the proposal. Section 5.11 – Alternatives and Design Evolution. This section sets out that detailed consideration of alternatives will be provided within the ES.
a summary table depicting each of the aspects and matters that are requested to be scoped out allowing for quick identification of issues;	Section 5.17 – Table 8.
a detailed description of the aspects and matters proposed to be scoped out of further assessment with justification provided;	Section 7 – Non-Significant Environmental Effects. This section provides detailed ‘topic sheets’ for each technical topic proposed to be scoped out of the EIA, which set out detailed justification to support the scooping out of these topics.
results of desktop and baseline studies where available and where relevant to the decision to scope in or out aspects or matters;	Section 6 and Section 7. All technical topic sheets provide baseline information for the relevant technical topic.
aspects and matters to be scoped in, the report should include details of the methods to be used to assess impacts and to determine significance of effect e.g. criteria for determining sensitivity and magnitude;	Section 6 – Potentially Significant Environmental Effects. This section provides detailed ‘topic sheets’ for each technical topic proposed to be scoped in to the EIA. The topic sheets in Section 6 set out detailed methodologies that will be applied for each technical topic scoped into the ES.
any avoidance or mitigation measures proposed, how they may be secured and the anticipated residual effects;	Section 6 and Section 7. All technical topic sheets set out mitigation measures relevant to the topic they address.
references to any guidance and best practice to be relied upon;	References are provided as footnotes throughout this EIA Scoping Report.

Information for Inclusion in an EIA Scoping Report	Where the EIA Scoping Report Addresses the Information Specifications
evidence of agreements reached with consultation bodies (for example the statutory nature conservation bodies or local authorities); and	Section 6 and Section 7. Where agreements have been reached with consultation bodies, these are discussed in the relevant topic sheets.
an outline of the structure of the proposed ES.	Section 5.19 – Format and Content of the ES.

1.4. EIA and the Scoping Process

EIA Purpose and Process

1.4.1. Environmental Impact Assessment is a process carried out which examines available environmental information to ensure that the likely significant environmental effects of certain projects are identified and assessed before a decision is taken on whether a project is granted planning permission. This means environmental issues can be identified at an early stage and projects can then be designed to avoid or to minimise significant environmental effects, and appropriate mitigation and monitoring can be put in place.

1.4.2. Regulation 5 of the IP EIA Regulations 2017 sets out the EIA process. Specifically, the Regulations state that:

"the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the Proposed Development on the following factors:

a. *(a) population and human health;*
b. *(b) biodiversity;*
c. *(c) land, soil, water, air and climate;*
d. *(d) Material assets, cultural heritage and the landscape;*
e. *(e) The interaction between the factors referred to in sub-paragraphs (a) to (d)."*

1.4.3. This Scoping Report has been prepared having regard to these 'factors' as set out in the EIA Regulations and is in line with PINS Advice Note Seven: EIA Screening, Scoping and Preliminary Environmental Information[7].

1.4.4. The potential for likely significant effects on the aforementioned factors, during both the enabling and construction works associated with the Project, once the Project is complete and operational, and during decommissioning, is considered within the following relevant environmental topics addressed within this EIA Scoping Report:

a. Air Quality;
b. Archaeology (Buried Heritage);
c. Built Heritage;
d. Climate Change and Greenhouse Gases;
e. Ecology and Biodiversity;
f. Ground Conditions and Land Contamination (Ground Conditions, Contamination, Land Take and Soils);
g. Human Health;
h. Landscape and Visual Impact;

[7] *The Planning Inspectorate Advice Note Seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping 2017. Available from: https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an. Accessed: 13 November 2025.*

i. Noise and Vibration;

j. Odours;

k. Project Vulnerability (Major Accidents and Disasters);

l. Socio-Economics;

m. Traffic and Movement;

n. Waste and Materials; and

o. Water Resources and Flood Risk.

1.4.5. The method behind the EIA process generally[8] takes into account the existing conditions of the area into which the development is being introduced (***the baseline***) and makes reasonable predictions of the likely change (***the impact*** – in terms of magnitude) that may occur, during both its construction and when the development is completed and operating as proposed. The predicted impact is considered in terms of key environmental and social aspects (***receptor / resource***) found within the surrounding area, and based on their sensitivity to change, the resulting change experienced by the receptor / resource (***the effect***) is then determined. Any mitigation measures required in order to reduce or eliminate adverse effects are then considered and assessed, with the resulting residual effect being determined as significant or not. The likely significant effects are then reported (within an ***environmental statement (ES)***) for consideration by the relevant planning authority when considering whether to grant planning permission for a development.

The Scoping Process

1.4.6. EIA Scoping forms one of the first stages of the EIA process. The purpose of scoping is to identify:

a. The important environmental issues and topics for consideration in the EIA;

b. The baseline conditions and assessment methodology to be used for assessment;

c. Any potentially sensitive receptors that may be affected by the development being proposed;

d. The appropriate space boundaries (study area) of the EIA: the Site boundary and surrounding environmental context;

e. The information necessary for decision-making; and

f. The potential significant effects which are likely to result from the development both during its enabling and construction and occupation/operation.

1.5. The Applicant and Project Team

1.5.1. The Project is being brought forward by an experienced team, with a commitment to working with stakeholders and the local community.

1.5.2. The Applicant (Slough Holdings UK Ltd) is a wholly-owned subsidiary of affiliated investment funds managed by SDC Capital Partners, LLC ('SDC'). SDC is a US-based investment firm specialising in the development of data centres. It has a proven track record in developing and operating data centres around the world, with years of expertise and knowledge of the sector, enabling it to identify markets and partner with cloud computing providers.

1.5.3. The Applicant has partnered with Veolia to help bring forward the project. Veolia has built and operates flexible power generation facilities throughout the UK and Europe including Combined Cycle Gas Turbine (CCGT) plants in Poland and Hungary.

[8] *There may be exceptions to the general approach described. Where there are exceptions, this will be clearly described within the relevant methodology section, outlining both the departure from the general EIA methodology and the description of the alternative approach. This is discussed further within Section 5 of this Scoping Report.*

1.5.4. The Project is supported by an experienced team of designers, environmental consultants and technical specialists with a long track record in designing, delivering and operating data centres and energy projects.

Use of Competent Experts

1.5.5. Trium Environmental Consulting LLP (Trium) has been commissioned by the Applicant to prepare an EIA Scoping Report for the redevelopment of the Site, in line with the requirements of the IP EIA Regulations 2017 and relevant EIA guidance.

1.5.6. The EIA Regulations require that in order to ensure the completeness and quality of the ES, '(a) the developer/applicant must ensure that the environmental statement is prepared by competent experts' and '(b) the environmental statement must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts.'[9] Trium consider that these requirements are equally important and relevant to the EIA scoping process in addition to the preparation of the ES. As such, in accordance with this requirement, the following statement is provided:

"Trium is an environmental consultancy specialising in Environmental Impact Assessment and has extensive experience in managing the environmental issues and impacts surrounding large scale, high profile development projects, with experts experienced in both DCO and TCPA planning regimes and the associated EIA Regulations and guidance. Trium has, project directed, managed or contributed to over 600 EIAs within the data centre, commercial, infrastructure, industrial, retail, residential, leisure and cultural sectors."

1.5.7. Information on Trium and all relevant technical consultants contributing to the EIA will be appended to the ES.

1.6. Structure of the EIA Scoping Report

1.6.1. This EIA Scoping Report is structured as follows and provides:

a. A description of the location and existing uses of the Site;

b. A description of the environmental context of the Site and surrounding area;

c. A description of the Proposed Development;

d. A description of the relevant policy and guidance;

e. EIA methodology and approach to assessment, including:

   i. A summary of the environmental topics (factors) that are considered to potentially result in significant effects on the environment and those that are considered unlikely to result in significant effects on the environment;

   ii. The proposed structure of the Preliminary Environmental Information Report (PEIR); and

   iii. The proposed structure of the Environmental Statement (ES);

f. Discussion of the potential for likely significant environmental effects – topics to be scoped into the EIA; and

g. Discussion of non-significant environmental effects – topics to be scoped out of the EIA.

1.6.2. For the topics that are considered to potentially result in likely significant effects on the environment, these are therefore **SCOPED IN** to the EIA. Discussion of these topics includes an explanation of the proposed scope and assessment methodology that will be adopted to predict the magnitude of potential impacts and the resultant scale, nature, geographic extent and duration of potential effects, and the effect significance.

1.6.3. For the topics that are considered unlikely to result in significant effects on the environment, and are therefore **SCOPED OUT** of the EIA, supporting evidence / justification is provided. As set out in *Section*

[9] *Regulation 14(4) IP EIA Regulations 2017 and Regulation 18(5) of the TCP EIA Regulations 2017.*

4.4 of this EIA Scoping Report, PINS Advice Note 7[10] specifies at paragraph 5.11 a series of questions that should addressed in order to support the scoping out of technical topics.

1.6.4. Each technical Topic Sheet within *Section 7* of this EIA Scoping Report has inherently considered these questions within the *Justification for Scoping Out* sections.

1.6.5. These Topic Sheets cover the following topics:

a. Air Quality and Odours;
b. Archaeology (Buried Heritage);
c. Built Heritage;
d. Climate Change and Greenhouse Gases;
e. Ecology and Biodiversity;
f. Ground Conditions and Land Contamination (Ground Conditions, Contamination, Land Take and Soils);
g. Human Health;
h. Landscape and Visual;
i. Noise and Vibration;
j. Project Vulnerability (Major Accidents and Disasters);
k. Socio-Economics;
l. Traffic and Movement;
m. Waste and Materials; and
n. Water Resources and Flood Risk.

1.6.6. This Scoping Report is supported by the following Appendices:

a. Appendix 1: Figures;
b. Appendix 2: Landscape and Visual Impact Assessment; and
c. Appendix 3: Archaeology.

[10] *The Planning Inspectorate Advice Note Seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping (2017). Available from: https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an. Accessed: 15 January 2026.*

2. SITE AND PROJECT DESCRIPTION

2.1. The Site

2.1.1. The Site covers an area of approximately 75.6 hectares (ha), which is denoted by the red line (the 'Proposed Order Limits') shown on Figure 1 in **Appendix 1: Figures**[11]. The blue line shown represents the Applicant's ownership boundary areas (hereafter the 'Wider Ownership Area'). It is possible that land within the Wider Ownership Area (i.e. within the blue line boundary on Figure 1 in **Appendix 1: Figures**) but currently outside the Proposed Order Limits (i.e. the red line boundary on Figure 1 in **Appendix 1: Figures**) may be proposed for environmental and community enhancements, including Biodiversity Net Gain (BNG) and provision of public open space and footpaths. The areas proposed for these enhancements are located outside of the Proposed Order Limits (though within the Wider Ownership Area) and the Applicant intends to secure the enhancements through a planning obligation or a DCO requirement. It is recognised, however, that it may be necessary to update the Proposed Order Limits in advance of submission of the application, for example as a result of scheme development work, environmental assessment or consultation and stakeholder engagement.

2.1.2. The Wider Ownership Area is considered as part of the wider baseline for some environmental topics due to the environmental and community enhancements, including BNG and the provision of public open space and footpaths, that it may deliver. The Wider Ownership Area covers an area of approximately 166.2ha. As detailed in *Section 1.1.3*, the Main Development Area (MDA) is the main parcel of development land which will deliver the Data Centre Campus and Energy Centre components of the Proposed Development, excluding the landscaping and access arrangements, and covers an area of approximately 22.3ha, located within the southeast of the Site, alongside the M40.

2.1.3. Given the different areas described above, the distances from receptors and key locations surrounding the Site differ depending on which area of the Site is being measured from (i.e. the 'Site' as indicated by the red line boundary (Proposed Order Limits) in **Appendix 1: Figures**), the Wider Ownership Area (as shown by the blue line boundary in **Appendix 1: Figures**), and the Main Development Area (as shown indicated by the pink highlighted area on Figure 4 in **Appendix 1: Figures**). Table 2 below provides a breakdown of the distances from the key locations described below, and their distance from the 'Site', the 'Applicant's ownership boundary', and the 'Main Development Area', as defined above.

Table 2 Summary of Distances to Key Locations

Location	Distance from the 'Site'	Distance from the 'Wider Ownership Area'	Distance from the Main Development Area (MDA)
Wapseys Wood Caravan Site	Adjacent to the north and east of the Site (access road of the Proposed Development).	Adjacent to the north of the Applicant's Ownership Boundary, and also adjacent to the west of the separate parcel of the Wider Ownership Area.	Approximately 410m to the north of the MDA.
Beaconsfield	Approximately 1.1km to the west of the Site	Approximately 1.1km to the west of the Wider Ownership Area.	Approximately 2.5km to the west of the MDA.
Gerrards Cross	Approximately 1.1km to the east of the Site.	Approximately 1.1km to the east of the Wider Ownership Area.	Approximately 1.5km to the east of the MDA.
Beaconsfield Station	Approximately 2.7km to the west of the Site.	Approximately 2.7km to the west of the Wider Ownership Area.	Approximately 4km to the northwest of the MDA.

2.1.4. The area from which distances have been measured have been specified throughout this Scoping Report, i.e. so that when a distance is specified from 'the Site', this is referring to the distance from the receptor / key location being described, and the Proposed Order Limits.

[11] *The Proposed Order Limits are as shown on Figure 1 in **Appendix 1: Figures**. The red line boundary shown on all other figures throughout this EIA Scoping Report are indicative. As detailed in Table 1, the locations of the Energy Centre, Data Centre Campus and Substation shown on Figure 1 in **Appendix 1: Figures** are indicative.*

2.1.5. The Site is located on the southern side of the A40 Oxford Road and to the north of the M40 motorway, and is located approximately 1.5km to the west of Gerrards Cross, and approximately 2.5km east of Beaconsfield, as measured from the MDA.

2.1.6. The Site is bound by:

a. A40 Oxford Road, the Beaconsfield Household Recycling Centre, Wapseys Wood Caravan Site and the Crowne Plaza hotel, beyond which are open fields and vegetation to the north;

b. Open fields, vegetation, the Scheduled Monument of the Templars' site at Moat Farm, with the farm beyond comprising a Grade II listed farmhouse (Moat Farmhouse), and a listed range of ancillary barns (also listed at Grade II) are located to the east;

c. The M40, beyond which are open fields, vegetation and Slade Farm Quarry, to the south; and

d. The Grade II listed buildings (Hyde Farm House and Hyde Farm Barn), open fields and vegetation to the west.

2.1.7. The Site comprises a portion of the broader Wapseys Wood landfill site, situated to the northwest of Gerrards Cross. The landfill activity is operated under Permit EPR/XP3636KW by Veolia ES Landfill Limited. As a result of the landfilling activities on-site, the topography of the Site varies from approximately 89m to 117m AOD.

2.1.8. The landfill stopped accepting landfill waste in 2017, and landfill activity on the Site has now ceased (with no further landfill waste to be accepted), though the existing Environment Agency licence remains active to facilitate the ongoing maintenance and management requirements of the licence.

2.1.9. Significant portions of the larger Wapseys Wood area have already undergone restoration as per the approved plan for the landfill site (see Planning History below), with other portions of the Site still requiring restoration. The Site's restoration contouring, already initiated elsewhere, ensures that it remains concealed from view from the southbound M40 motorway. Additionally, a bund approximately 15 meters high exists to the south of the Site, acting as a barrier between the Site and the M40.

2.1.10. A number of existing buildings and structures are located on the Site to facilitate the ongoing management and maintenance of the landfill. The key operational aspects of the existing Site are shown in Figure 4 in **Appendix 1: Figures**.

2.1.11. The Site has an existing vehicular access taken from the A40 Oxford Road to the north (as indicated in Figure 5 in **Appendix 1: Figures**), and is lined with a hedgerow and trees along its frontage with the highway. Hardstanding has been laid on parts of the Site with concrete bays where products from the former quarry were restored.

2.1.12. Additional permitted waste activities are conducted on-site associated with generation of energy from landfill gas (EPR/HP3630LN) and as the Quattro Waste Management facility, which is a non-hazardous soils and stones (DB3437RJ) and materials recycling facility, both operated by separate operators.

2.1.13. The generation of energy from landfill gas occurs through the capture and processing of fugitive methane emissions (arising from the decay of organic waste in the landfill) within four reciprocating engines that produce 4MW of biogas electricity by combusting the methane. These engines are located within the Site, and the electricity is exported to the National Grid ('the grid').

2.1.14. As shown on Figure 6 in **Appendix 1: Figures**, an existing gas pipeline runs through the Site in a north-south direction, along the western boundary, and a 400kV overhead powerline passes through the eastern part of the Site on an approximate north-south alignment.

2.1.15. In terms of vegetation, the Site is dominated by bare ground, occasional ponds, and early successional communities. Some of these habitats are believed to meet the definition of Priority Open Mosaic Habitats on Previously Developed Land. The margins of the Site are more vegetated, being dominated by scrub and woodland, of which some appears planted and other areas self-seeded.

2.1.16. The following Public Rights of Way (PRoW) traverse parts of the Site (see Figure 5 in **Appendix 1: Figures**):

a. Footpath GEC/12/1 (passing through the tree/shrub belt along the southern Site boundary);

b. Footpath GEC/11/1 (connecting Footpath GEC/12/1 with the A40 near the Crowne Plaza Hotel);

c. Footpaths GEC/13/1 and GEC/13/3 (connecting Footpath GEC/12/1 with the housing cluster at the northwestern corner of Bulstrode Park); and

d. Footpath GEC/25/1 (extending east from Footpath GEC/13/3 along the northern side of Moat Farm).

2.2. Environmental Context

2.2.1. The technical topic sheets presented in *Section 6* and *Section 7* of this Scoping Report provide detailed baseline information relevant to each topic. A summary of the environmental context of the Site and surroundings is presented in Table 3 below and shown in Figure 5 in **Appendix 1: Figures**.

Table 3 The Site and Surrounding Environmental Context

Environmental Topic	Environmental Context
Air Quality	a. The Site is not located within an Air Quality Management Area (AQMA). The closest AQMAs to the Site are South Bucks AQMA approximately 5km southeast of the Site, and High Wycombe AQMA 6.5km northwest of the Site. b. Existing sources of air pollution to the Site include the M40 motorway adjacent to the Site to the south, and the A40 to the north of the Site. Additionally, three large-scale industrial installations are located within 3km of the Site boundary (two of which are within the Site boundary itself), with landfill sites potentially having a measurable influence on air quality whilst operational. This includes the Gerrards Cross Landfill Site, Wapseys Wood, Gerrards Cross Landfill (methane plant), and the Shell Beaconsfield (hydrogen refueling station). c. The monitoring of nitrogen dioxide by Buckinghamshire Council has identified concentrations of the pollutant are within the limit value set in the Air Quality Standards. A number of ecological sites are located within 2km from the Site, including Special Areas of Conservation, and Ancient Woodland sites. d. Potentially sensitive air quality receptors are located in the surrounding area, including residents located directly adjacent to the north, southwest and further beyond to the northwest of the Site, and which will be considered within the assessment. e. Further detail on the existing air quality context is provided within the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA* section of this Scoping Report.
Archaeology (Buried Heritage)	a. There are no World Heritage Sites, Scheduled Monuments, Historic Battlefields or Historic Wrecks within the Site boundary. There are three Scheduled Monuments within 1km of the Site. b. The entire Main Development Area has been severely truncated by minerals extraction, with later landfill and landscaping creating an undulating entirely modern formation topography. There are some minor exceptions to this high level of truncation in terms of the proposed western ends of the proposed southern access route. c. The other possible exception to truncation is where the northern access route to the main Site is aligned over a current rough (dirt) track through an untruncated zone of Wapseys Wood. d. It appears that any surviving archaeological remains within the access routes, in the context of the Secretary of State's non-statutory criteria for Scheduled Monuments (DCMS 2013)[12], are most likely to be of overall low / local significance e. Further detail on the existing archaeological context is provided within the *Non-Significant Environmental Effects – Topics To Be Scoped Out Of The EIA* section of this Scoping Report.

[12] *Department for Culture, Media and Sport (2013) Scheduled Monuments & nationally important but non-scheduled monuments*

Environmental Topic	Environmental Context
(Built) Heritage (Above Ground Heritage)	a. The Site does not contain any designated or non-designated heritage receptors. It is not situated within a conservation area or Registered Park and Garden. b. Immediately to the southeast of the Site is the Scheduled Monument of the Templars' site at Moat Farm, with the farm beyond comprising a Grade II listed farmhouse (Moat Farmhouse), and a listed range of ancillary barns (also listed at Grade II). Additional listed buildings are located within the wider 2km built heritage study area. c. The Site is located approximately 400-500m to the west of the Registered Park and Garden of Bulstrode Park (registered at Grade II*). d. Bulstrode Park includes the Grade II listed Bulstrode House (a circa. 1860s building), as well as a Grade II listed Pigeon Tower, designed by James Wyatt, both listed buildings being situated beyond existing tree belts which define the western boundary of the Registered Park and Garden. e. Hedgerley Green Conservation Area lies approximately 220m to the south of the Site on the south side of the intervening M40. The conservation area includes four listed buildings, including Manor Farmhouse (Grade II), Outbuildings North East of Manor Farmhouse (Grade II), Leith Grove (Grade II) and Hammer Cottage and Harp Cottage (Grade II). f. Approximately 950m to the south of the Site on the south side of the intervening M40 is the Hedgerley Village Conservation Area, including a high concentration of listed buildings of various grades, including the Grade II* listed Parish Church of St Mary the Virgin. g. Further detail on the surrounding heritage context is provided within the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA* section of this Scoping Report.
Ecology and Biodiversity	a. The Site is dominated by bare ground, occasional ponds, and early successional communities. Some of these habitats are believed to meet the definition of Priority Open Mosaic Habitats on Previously Developed Land. There are 10 existing ponds currently within the Site boundary. These comprise of permanent and ephemeral ponds of various sizes. b. The surrounding area within the study area (as identified in the 'Ecology' section of the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA*) comprises a capped landfill, dominated by 'other' neutral grassland and woodland. The majority of the woodland does not appear to be 'long established' i.e. appearing to have been planted within the last 100 years, however a minority appears older, particularly in the north-west of the ecology Study Area, which includes woodland identified as ancient semi-natural woodland on Natural England's Ancient Woodland Inventory. The majority of the Ancient Woodland is located outside of the Site and the Wider Ownership Area (but within the ecology study area), however a small portion does fall within the Wider Ownership Area. c. There are no statutory ecological designations within the Site. The nearest statutory designated site is Burnham Beeches Special Area of Conservation (SAC), which is an internationally designated site, and is located 2km southwest of the Site. d. The Woodpasture and Parkland Biodiversity Action Plan (BAP) Priority Habitat lies approximately 100m east of the Site, approximately 400m to the southeast, and approximately 1.2km southwest of the Site. e. A total of 18 locally designated sites are located within 2km of the Site. Hedgerley Green Claypits Biological Notification site (BNS) is located within the southeast portion of the Site (noting that this is a notification for a BNS site and which is pending review against Local Wildlife Site criteria). f. Habitats within the Site and Study Area are known to support great crested newt, and have potential suitability for badger, bats (roosting, foraging and commuting), dormouse, water vole, fish, nesting and non-breeding birds, and notable invertebrates. g. The Site is entirely within a B-Line insect pathway designated by Buglife[13], which runs from southwest to northeast. h. South Bucks Heaths and Parklands Biodiversity Opportunity Area (BOA) lies approximately 0.06km southwest of the Site (approximately 0.03km southwest of the

[13] *An invertebrate conservation trust. This is low status landscape designation for targeting habitat creation specific to invertebrates.*

Environmental Topic	Environmental Context
	Study Area) and Colne Valley BOA lies approximately 1.7km southeast of the Site (and Study Area). i. Habitats currently identified within the Site include (but are not limited to): Open mosaic habitats on previously developed land; Lowland mixed deciduous woodland; Wet woodland; Other coniferous woodland; Ponds; Mixed scrub; Willow scrub; Bramble scrub; Other neutral grassland; Tall forbs; Ruderal/ephemeral vegetation; Bare ground; and Developed land; sealed surface. j. Habitats within the Study Area include (but are not limited to): Other neutral grassland; Lowland mixed deciduous woodland (of which a minority is included in Natural England's Ancient Woodland Inventory); Other Scot's pine woodland; Ponds; and Bramble scrub. k. Further detail on the surrounding ecological and biodiversity context is provided within the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA* section of this Scoping Report.
Ground Conditions	a. The majority of the Site comprises previously landfilled areas. Recent and historic manmade lagoons are located in the southwest and northeast of the Site. b. Ground levels typically vary between 89m to 117m above ordnance datum (AOD). c. Based on available published geology British Geological Society (BGS) information[14], the geological sequence at the Site comprises the following: superficial deposits of the Gerrards Cross Gravel (likely removed as part of gravel extraction), underlain by bedrock deposits of the Lambeth Group, overlying Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) – Chalk. d. The nearest main surface water body is the River Misbourne, located approximately 3.7km east of the Site. e. In terms of aquifer designations, the superficial deposits of the Gerrards Cross Gravel is classified as a Secondary A Aquifer, the bedrock of the Lambeth Group is classified as a Secondary A Aquifer, and the Chalk Formation is classified as a Principal Aquifer. f. The Site is located within the total catchment (groundwater Source Protection Zone (SPZ) 3) of the Bulstrode pumping station, which extracts water from the chalk aquifer for public supply (approximately 500m north of the Site). Bulstrode pumping station is considered upgradient of the Site. A groundwater SPZ 1 is located approximately 400m northeast of the Site. g. Groundwater flow within the chalk aquifer is to the south / southwest. Groundwater levels within the chalk aquifer are between 49-55m AOD. h. Further detail on ground conditions of the Site and surrounding area is provided within the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA* section of this Scoping Report.
Noise and Vibration	a. Existing noise sources comprise: i. Road traffic on the M40; ii. Road traffic on the surrounding road network; and iii. Operation noise from existing landfill site; b. During the night-time period, road traffic on the M40 dominates the sound environment. c. Potential noise sensitive receptors include residential receptors in near proximity of Site. d. Further detail on the existing noise and vibration baseline is provided within the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA* section of this Scoping Report.
Landscape and Visual	a. The Site does not form any part of a landscape that is designated at either local or national level, with the southern boundary of the Chilterns National Landscape lying approximately 1.75km to the northwest of the Site. b. The Site forms part of an extensive undulating plateau that includes farmland, parkland, small settlements, sporadic commercial properties, quarries and highways.

[14] *Available from: https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/. Accessed: 23 September 2025.*

Environmental Topic	Environmental Context
	c. The hamlet of Hedgerley Green and village of Hedgerley lie on the south side of the M40, approximately 0.5km and 1.5km south of the Site respectively. The villages of Seer Green and Jordans lie approximately 1.5km north of the Site. d. The Beaconsfield Household Recycling Centre, the Crowne Plaza Hotel (Gerrards Cross), the Wapseys Wood Caravan Site and a housing cluster in the northwestern corner of Bulstrode Park all lie between the Site and the A40. e. The landforms of the completed or partially completed landfill restoration works rise up on the north, south, east and west sides of the active mineral works area. f. The Site lies within the Beaconsfield Mixed Use Terrace (22.1) Landscape Character Area (LCA), as identified by the South Bucks District Landscape Character Assessment[15]. This LCA also includes land to the north, northwest, west and southwest of the Site as well as a belt of land on the southern side of the M40. g. Land to the northeast, east and southeast of the Site and a belt of land that includes Hedgerley to the south, form part of Alder Bourne River Valley LCA (23.1). h. Sky glow above Beaconsfield and Gerrards Cross is noticeable from the rural landscape between these two settlements. Lighting along the section of M40 adjacent to the Site has been observed to contribute to the sky glow. i. Woodland, copses and tree belts are common in the area surrounding the Site, with the woodland typically comprising of mixed woodland plantation or broadleaved woodland. j. In terms of on-site vegetation, capped areas of former landfill have been re-vegetated with trees / shrubs / grassland. Much of this vegetation is of uniform height as it was all planted at the same time using specimens of similar height, with a resultant reduction in its interest and variety. k. Wapseys Wood, Further Warren Wood and other substantially mature on-site blocks of woodland are located between the northern site boundary and the A40. In the eastern part of the Site, woodland blocks are located alongside the Bulstrode Park woodland and on the western and northwestern sides of the off-site buildings at Moat Farm. Tree / shrub belts and other woodland blocks are also located in the southern part of the Site, where on-site vegetation is supplemented by trees within the highways reserve. l. Further detail on the existing landscape and visual baseline is provided within the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA* section of this Scoping Report.
Socio-Economics	a. The Site is located within the ward of Gerrards Cross, which is located within the Buckinghamshire Council unitary authority district. b. The nearest settlements are Beaconsfield (approximately 2.5km to the west of the Main Development Area at its closest point) and Gerrards Cross (approximately 1.5km to the east of the Main Development Area at its closest point. There is a residential property located in close proximity to the Site, on Hedgerley Lane and multiple residential properties on Wapseys Lane, to the south of the Site. The Wapseys Wood Caravan Site is located to the north of the Site and Bulstrode Park is located to the east. c. Currently, the existing landfill site provides approximately 50 jobs. Operation of the Site is due to cease imminently, separate to the Proposed Development, therefore these jobs will be lost regardless. d. Further detail on the socio-economic baseline conditions, as well as the extent of the approach and methodology on the forthcoming socio-economic assessment is provided within the *Potential Significant Environmental Effects – Topics To Be Scoped Into The EIA* section of this Scoping Report.
Traffic and Movement	a. The M40 Motorway runs immediately south of the Site boundary, providing strategic east-west connectivity with Junction 2 (Beaconsfield) located approximately 2km to the east. The A40 Oxford Road forms a major trunk road along the northern Site boundary, providing direct connectivity between the M40 and the central London / Oxford corridor. b. Public transport provision includes Beaconsfield railway station offering mainline services approximately 4km northwest of the Site. c. Local bus services operating along the A40 corridor, which provide a twice an hour service between High Wycombe (westbound) and Heathrow Airport (eastbound).

[15] *South Bucks District Landscape Character Assessment (October 2011)*

Environmental Topic	Environmental Context
	d. There are a number of public rights of way that traverse the Site as set out above. The area has limited cycle infrastructure, reflecting the semi-rural context of the surrounding environment. e. The Site is currently accessed via an existing access road from the A40 Oxford Road to the northeast, which accommodates regular HGV movements for the ongoing landfill operations f. Further detail on the existing transport baseline is provided within the *Non-Significant Environmental Effects – Topics To Be Scoped Out Of The EIA* section of this Scoping Report.
Water Resources and Flood Risk	a. The Site is not within the Environment Agency's (EA) Flood Map for Planning Flood Zones 2 or 3 and so it is deemed to be within Flood Zone 1. This is defined as 'land having a less than 1 in 1,000 annual probability of river or sea flooding' and the Proposed Development area can therefore be considered to have a low probability of fluvial flooding. b. There are localised areas within the Site which are at risk of between a medium to high risk of surface water flooding. c. There is no identified potential for the Site to be at risk of flooding in the event of a breach failure of a reservoir. d. There are 10 recent and historic manmade ponds currently within the Site boundary. These comprise of permanent and ephemeral ponds of various sizes. e. Further detail on the existing water resources and flood risk baseline is provided within *Non-Significant Environmental Effects – Topics To Be Scoped Out Of The EIA*.

2.3. Planning History

2.3.1. The Site has an extensive planning history relating to its use as a former mineral extraction site and the use of the surrounding area within the wider Veolia ownership (which extends beyond the Wider Ownership Area identified in blue on Figure 1 in **Appendix 1: Figures**), in particular the restoration of the surrounding landfill. This section provides a summary of the Site's planning history.

2.3.2. Mineral extraction and waste disposal activities at Wapseys Wood and the adjoining Hyde Farm date back to the 1940s. Over the decades, the wider Wapseys Wood complex has been subject to numerous planning consents relating to mineral extraction, landfill operations, and associated infrastructure.

2.3.3. In 1990, planning permission SBD/1397/88 was granted, requiring the restoration of the Site to be completed no later than 30 September 2001. However, subsequent consents allowed final restoration to be delayed on parts of the Site to enable the continued use of the access road, site facilities, and processing plant.

2.3.4. Further permissions were granted during the 1990s to regularise and extend operations across both Wapseys Wood and Hyde Farm. In 1994, permission SBD/8201/94 was approved, followed by SBD/8205/96 in 1996, both of which required the restoration of Hyde Farm to be completed by 30 April 2012. Following the acquisition of the Site by Veolia in 1991, these permissions were used to integrate the working of Hyde Farm in conjunction with Wapseys Wood, bringing the entire operational area under unified control.

2.3.5. In September 2000, a further permission SBD/8201/99 was granted for a revised restoration scheme, which enabled both Wapseys Wood and Hyde Farm to be restored as a single, cohesive landform. This consent brought together earlier, separate schemes for different parts of the complex into a comprehensive restoration strategy controlled under one permission. The 2000 consent required the full restoration of the Site by 30 April 2012.

2.3.6. More recently in May 2022, a series of applications submitted under Section 73 of the Town and Country Planning Act 1990 (as amended) were refused. These applications sought to:

a. **CM/0054/21** - extend the time limit for the removal of the existing offices on the Site and for the Site to be restored in accordance with the approved documents and drawings (as per planning

application no. CM/0053/21 to vary condition 48 of permission no. CM/0112/17) no later than 31st December 2027;

b. **CM/0055/21** - extend the time limit for the use of all buildings, machinery, stockpiles and plant to cease by 31st December 2026 and that the Site be restored in accordance with the approved documents and drawings (as per planning application no. CM/0053/21 to vary condition 48 of permission no. CM/0112/17) no later than 31st December 2027;

c. **CM/0056/21** - extend the time limit for the removal of the existing office and weighbridge office and that the Site be restored in accordance with the approved documents and drawings (as per planning application no. CM/0053/21 to vary condition 48 of permission no. CM/0112/17) no later than 31st December 2027; and

d. **CM/0057/21** - extend the time limit for the removal of the sales office and that the Site be restored in accordance with the approved documents and drawings (as per planning application no. CM/0053/21 to vary condition 48 of permission no. CM/0112/17) no later than 31st December 2027.

2.3.7. Most recently, a minerals and waste planning application was validated in December 2023 by Buckinghamshire Council, for the 'revised restoration of the landfill and former mineral extraction site, temporary retention of surface laid pipework for landfill gas and leachate collection prior to burial, temporary retention of waste recycling centre and associated infrastructure, plant, machinery and site management buildings' (ref. CM/0031/23[16]). This Section 73 application was accompanied by an Environmental Statement, following the submission of a request for an Environmental Impact Assessment screening opinion, which was decided in March 2023 (ref. SCREEN/06/23).

2.3.8. At the time of writing this EIA Scoping Report Request, this Section 73 application has not been decided. Therefore, the consented restoration programme as approved is the baseline position and the undecided s73 proposals has also informed the emerging landscape design of the Proposed Development.

2.3.9. Table 4 below provide a full list of the planning history.

Table 4 Planning History

Reference	Description of Development	Decision & Date
93/08213/CM	Engineering works together with modification to final restoration levels and drainage scheme.	Granted – 24/09/1993
93/08217/CM	Siting of semi-mobile crusher for the purposes of recycling concrete and other solid inert construction / demolition materials.	Granted – 15/03/1994
95/08201/CM	Temporary siting of portable building for office, administration and security purposes.	Granted – 30/03/1995
SBD/8209/97	Relocation of construction waste recycling centre.	Granted – (Date not specified)
98/08207/CM	Variation of conditions 2 and 3 of planning permission SBD/8213/93 for construction of screening bund.	Granted – 19/10/1998
SBD/8201/99	Revisions to final restoration contours together with variation to mineral extraction boundary and restoration scheme.	Granted – 04/09/2000
SBD/8218/03	Erection of a temporary gas flare and leachate compound.	Granted – 18/02/2004
SBD/8219/03	Installation of 2 no additional site offices.	Granted – 18/02/2004
03/08218/CM	Erection of a temporary gas flare and leachate compound.	Granted – 30/01/2004
03/08219/CM	Installation of two additional site offices.	Granted – 30/01/2004
SBD/8204/04	Retrospective application for the erection of a site office and wheel spinner.	Granted – 29/07/2004

[16] *Available from: https://publicaccess.buckscc.gov.uk/online-applications/applicationDetails.do?previousCaseType=Property&keyVal=S3HNRFDS03F00&previousCaseNumber=006CR8DSBU000&previousCaseUprn=100081280492&activeTab=summary&previousKeyVal=006U1ADSLI000*. Accessed: 10 April 2026.

Reference	Description of Development	Decision & Date
04/08211/CM	Application for silt press and supplementary sand facility.	Granted – 01/10/2004
SBD/8212/05	Variation of condition 16 of SBD/8201/99 to allow deposit of waste on bank holidays (except Christmas and New Year's Day).	Granted – 23/01/2006
05/08212/CM	Variation of condition 16 of SBD/8201/99 to allow deposit of waste on bank holidays (except Christmas and New Year's Day).	Granted – 19/12/2005
10/01302/CC	Variation of conditions 3 and 63 of consent SBD/8201/99.	Refused – 04/11/2010
11/00223/CC	Variation of Conditions 3 and 63 of consent SBD/8201/99 relating to Waste Disposal Operations.	Granted – 13/01/2012
11/01900/CM	Variation of condition 4 of SBD/8219/03 to extend removal of existing site offices to 31/12/2017.	Granted – 16/02/2012
11/01901/CM	Variation of condition 2 of SBD/8209/97 to extend removal of recycling centre to 31/12/2017.	Granted – 16/02/2012
11/01902/CM	Variation of condition 1 of SBD/8210/98 to extend removal of office and weighbridge office to 31/12/2017.	Granted – 16/02/2012
11/01903/CM	Variation of condition 2 of SBD/8201/01 to extend removal of sales office to 31/12/2017.	Granted – 16/02/2012
11/01904/CM	Variation of condition 7 of SBD/8212/05 to allow waste deposit on holidays (except Christmas and New Year's Day) to 31/12/2017.	Granted – 16/02/2012
13/00449/CM	Allocation of condition 11 for Variation of Conditions 3 and 63 of consent SBD/8201/99 (Ref No AOC/11/00223/CC/1113).	Granted – 28/03/2013
13/00645/CM	Retention of wet mixed mortar and screed plant and associated infrastructure until 31/12/2015 (retrospective).	Granted – 16/05/2013
15/02264/CM	Variation of Condition 2 of consent SBD/8205/05 to regularise plant and equipment layout within existing gas compound.	Granted – 14/12/2015
17/01841/CM	Revised restoration landform for waste recovery and anaerobic digestion facility, etc.	Granted – 13/10/2017
CM/17/16	Revised restoration landform for waste recovery and anaerobic digestion facility, etc.	Refused – 15/12/2017 (Appeal allowed 16/09/2019)
CM/0112/17	Variation of conditions 2 & 61 of 11/00223/CC to extend site time limit to 31/12/2021.	Granted – 08/05/2019
CM/0113/17	Variation of condition 2 of 11/01900/CM to extend removal of site offices to 31/12/2021.	Granted – 08/05/2019
CM/0114/17	Variation of condition 1 of 11/01901/CM to extend recycling centre use to 31/12/2021.	Granted – 08/05/2019
CM/0115/17	Variation of condition 1 of 11/01902/CM to extend removal of office and weighbridge to 31/12/2021.	Granted – 08/05/2019
CM/0116/17	Variation of condition 1 of 11/01903/CM to extend removal of sales office to 31/12/2021.	Granted – 08/05/2019
CM/0053/21	Section 73 to extend completion of landfilling to 31/12/2026 and restoration to 31/12/2027.	Refused – 12/05/2022
CM/0054/21	Section 73 to extend removal of existing offices and site restoration to 31/12/2027.	Refused – 12/05/2022
CM/0055/21	Section 73 to extend use of buildings and restoration to 31/12/2027.	Refused – 12/05/2022
CM/0056/21	Section 73 to extend removal of office and weighbridge and restoration to 31/12/2027.	Refused – 12/05/2022
CM/0057/21	Section 73 to extend removal of sales office and restoration to 31/12/2027.	Refused – 12/05/2022
CM/0031/23	Section 73 for revised restoration, temporary retention of landfill infrastructure and waste recycling centre.	Under consideration – Submitted 01/11/2023

3. THE PROPOSED DEVELOPMENT

3.1. Introduction

3.1.1. The below description of the Proposed Development presents the current status of the design, at the time of submission of this EIA Scoping Report, and has be utilised to inform the proposed scope of the EIA. Final details of the Proposed Development will be presented within the ES.

3.2. Overview and Need

3.2.1. The Applicant is seeking development consent for the redevelopment of the former mineral extraction site and parts of the surrounding landfill areas to provide hyperscale data centres with ancillary offices, associated plant and equipment, alongside on-site energy generation facilities and associated infrastructure.

3.2.2. In a press release in September 2024, the UK Government[17] announced that it has now classed data centres as 'Critical National Infrastructure'. This places their compromise or loss on the same 'level' as services such as energy, water, transport and other critical national infrastructure sectors.

3.2.3. Government policy emphasises the importance of a secure and reliable digital infrastructure (of which data centres are a key part) to ensure the effective functioning of the economy and maximise its growth prospects. In June 2025, the Government published its Modern Industrial Strategy (NIS) which sets out the commitment to deliver strong and sustainable economic growth. To achieve this, the Government is focused on the critical need to increase business investment, capturing a greater share of internationally mobile capital, spurring domestic businesses to scale up. The Modern Industrial Strategy outlines the Government's commitment to support eight sectors with the highest potential, and the frontier industries at their leading edge – and targeting the places and clusters across the UK that support those sectors, to increase national productivity and strengthen economic security and resilience.

3.2.4. There are three key elements in the MIS that are particularly relevant to data centres:

1. "Digital and Technologies" sector is identified as one of the UK's eight "**growth driving sectors**" that are to be prioritised (clearly data centres are part of this sector).
2. The role of data and digital infrastructure in of the UK economy is highlighted as "critical to **economic growth**" and there is specific mention of the role data centres play in this regard.
3. To deliver this growth, there are a series of interventions which will fast track data centre projects through increasing certainty and making timely planning decisions.

3.2.5. Data centres are now explicitly identified as a critically important part of that national economic infrastructure. Their vital role is recognised in both national planning policy and national industrial policy. They also have a specific and important role to play in ensuring the UK grasps the opportunities created by Artificial Intelligence (AI).

3.2.6. The UK Government's AI Opportunities Action Plan, alongside the establishment of AI Growth Zones and the publication of the UK Compute Roadmap, demonstrates a strategic commitment to positioning the UK as a global leader in artificial intelligence and the digital economy. These publications highlight the critical role of the digital and technology sector in driving economic growth, enhancing public services, and attracting international investment. While the UK is already the third-largest AI market globally, the policy documents suggest that its infrastructure remains under-optimised for the scale of AI adoption and cloud technology required to remain competitive. Central to this vision is the UK Compute Roadmap, which sets a target of 6GW of AI-capable data centre capacity by 2030 (a threefold increase over current levels) to support the compute-intensive demands of modern computing applications. This infrastructure expansion is essential not only for maintaining the UK's competitive

[17] *Available from: https://www.gov.uk/government/news/data-centres-to-be-given-massive-boost-and-protections-from-cyber-criminals-and-it-blackouts. Accessed: 13 November 2025.*

edge but also for unlocking the full potential of technology to transform industries, attract global talent, and deliver long-term prosperity.

3.2.7. The need for data centres in the UK is considered to be well-established at the national policy level and is now increasingly being reflected in relevant planning and consenting policy and legislation.

3.2.8. The National Planning Policy Framework (NPPF)[18] also makes reference to the need to plan for data centres at paragraph 87, which states that:

Paragraph 86 - "Planning policies should: (c) pay particular regard to facilitating development to meet the needs of a modern economy, including by identifying suitable locations for uses such as laboratories, gigafactories, data centres, digital infrastructure, freight and logistics;

Paragraph 87 – 'Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for: a) clusters or networks of knowledge and data-driven, creative or high technology industries; and for new, expanded or upgraded facilities and infrastructure that are needed to support the growth of these industries (including data centres and grid connections)…'

3.2.9. In 2024, the government also consulted on the prospect of data centres (and certain other development) being made capable of being directed into the NSIP consenting regime.[19] Government indicated its response that this would be pursued "*due to the overall favourability of responses and important role these types of development are to supporting the government's economic growth mission*."[20]

3.2.10. During a Parliamentary debate on the (draft, at the time) 2026 (Amendment) Regulations, it was noted by the Parliamentary Under-Secretary of State, Ministry of Housing, Communities and Local Government that the government is "*committed to ensuring that the planning system effectively facilitates development to meet the needs of a modern economy, including digital infrastructure such as data centres*". The 2026 (Amendment) Regulations came into force on 8 January 2026.

3.2.11. To meet the overwhelming and urgent demand for data centre capacity in a timely manner (especially in the London Availability Region and Slough Availability Zone), the Data Centre Campus needs to be supported by its own energy source. This would allow the Data Centre Campus to become operational significantly ahead of any grid connection procurement and alleviate the burden of data centres on the grid. Whilst a grid connection at a future date will be explored, the proposals comprising the Proposed Development allow the timely delivery of much-needed data centre capacity and present a unique and rare proposal for a power-sufficient data centre campus.

3.2.12. The proposed solution for energy is the Energy Centre, which constitutes an NSIP itself by virtue of its capacity exceeding 50MW. The interlinked nature of the two elements of the project means that the absence of the Energy Centre could render the development of the Data Centre Campus unviable in the immediate terms due to the current lack of availability of power.

3.2.13. The Proposed Development as a whole represents a unique opportunity to deliver significant data centre capacity to meet the overwhelming and urgent need. The Applicant is mitigating impact on the already burdened grid by providing its own power source, thereby ensuring the data centre need is met

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[18] *Ministry of Housing, Communities and Local Government 2025. National Planning Policy Framework. Available from: https://www.gov.uk/government/publications/national-planning-policy-framework--2. Accessed: 13 November 2025.*

[19] *Ministry of Housing, Communities and Local Government. 2024. Ministry of Housing, Communities and Local Government. Proposed reforms to the National Planning Policy Framework and other change to the planning system. https://www.gov.uk/government/consultations/proposed-reforms-to-the-national-planning-policy-framework-and-other-changes-to-the-planning-system/proposed-reforms-to-the-national-planning-policy-framework-and-other-changes-to-the-planning-system*

[20] *Ministry of Housing, Communities and Local Government. Government response to the proposed reforms to the National Planning Policy Framework and other changes to the planning system consultation. https://www.gov.uk/government/consultations/proposed-reforms-to-the-national-planning-policy-framework-and-other-changes-to-the-planning-system/outcome/government-response-to-the-proposed-reforms-to-the-national-planning-policy-framework-and-other-changes-to-the-planning-system-consultation*

within urgent and immediate timescales. In addition, the Energy Centre itself provides resilience and flexibility, thereby promoting energy security in the UK.

3.2.14. There is therefore considered to be a well-established need for data centres and the Proposed Development will contribute to meeting this need and delivering Critical National Infrastructure. There is clear recognition of the importance of the digital economy to UK prosperity and effective functioning of our public services, government and society across government policy areas.

3.2.15. The Proposed Development can be summarised into the following key components which are set out in more detail below:

a. Three data centre buildings and associated office space and fuel storage;

b. The Energy Centre will contain gas technologies, which could comprise of: Combined Cycle Gas Turbines (CCGTs) and/or Open Cycle Gas Turbines (OCGTs) and/or reciprocating engines. These will be designed to be in compliance with Government policy on decarbonisation readiness, with associated water, fuel, chemical and oil storage areas and battery compound;

c. Extensive landscaping of the Site including Site excavations and fill to amend the existing ground levels to accommodate the built form, whilst introducing landscaping bunds to aid visual containment of the Site;

d. Substations linking the data centres with both the Energy Centre and the electrical distribution network;

e. Above ground installation gas connection with infrastructure connection off-site and within the Site extents;

f. New and enhanced vehicular access;

g. Replacement Veolia vehicle depot;

h. Landscaping, biodiversity enhancements, open space and public amenity; and

i. Retention of some of the existing landfill-related operations, including the existing methane-to-energy energy centre and the leachate plant.

3.2.16. The Proposed Development may potentially include the infrastructure to enable future waste heat recovery. Other than the landscaping and access arrangements, the above infrastructure will fall within the 'Main Development Area' adjacent to the M40, covering an area of approximately 22.3 hectares.

3.2.17. Where design development is ongoing (and subject to iterative environmental testing), indicative information is provided where possible. Where multiple options are being considered, such as in relation to technologies and stack heights, these are set out.

3.2.18. At this stage of the design the compulsory acquisition powers are not considered necessary to enable the delivery of the Proposed Development. However, at the time of preparing this Scoping Report, the possibility that compulsory acquisition powers may be required cannot be ruled out.

3.3. Data Centre Campus

3.3.1. The Data Centre campus comprises three individual buildings, each containing three data centre halls. At the current stage of the design process, it is anticipated that the Data Centre Campus (comprising the three data centres) will have an overall maximum building footprint of up to approximately 65,000m^2, with a maximum building height of up to approximately 40m, on top of which will be rooftop plant, including stacks from the back-up generators. The Data Centre Campus is anticipated to have a proposed IT load of up to approximately 300 megawatts across the three data centres.

3.3.2. The stack heights are undergoing testing to determine an acceptable height that meets the requirements in relation to noise and atmospheric emissions alongside the landscape setting.

3.3.3. Air cooling is expected to be used (rather than water cooling) for the operational Data Centre Campus.

3.3.4. As set out below, the landscaping proposals could involve both excavation and filling of the existing ground levels to accommodate the buildings within the landscape. The exact levels of excavation will be subject to further testing, and will be reported upon within the ES.

3.3.5. The Data Centre Campus will include ancillary facilities including offices, storage areas (including fuel storage), batteries (with the final battery technologies to be defined), access and parking (set out further below) and amenities for operational staff.

3.3.6. The intention is for the Energy Centre to supply energy to the Data Centre Campus. At such a time in the future when energy is available from the relevant Distribution Network Operator, an off-site connection will be made such that the Data Centre Campus will then use energy from the grid. Further information on the development options in relation to a future grid connection are set out in *Section 5.9*.

3.4. Energy Centre

3.4.1. Data centres are typically powered by electricity directly from the grid. However, there is limited grid capacity in the west of London area[21], with upgrades to existing substations to increase capacity not expected to come online until at least 2030.

3.4.2. The Proposed Development intends to utilise the existing on-site gas pipeline that runs beneath the western edge of the Site (see Figure 6 in **Appendix 1: Figures** for a map showing its indicative location), to generate electricity to supply the Data Centre Campus, therefore mitigating reliance solely on energy from the National Grid. The Energy Centre will result in an output of approximately 300 megawatt of electricity. The Energy Centre will therefore have capacity to power up to two of the three data centres; grid connection will therefore be required to bring the subsequent data centre(s) online. Three types of gas technology are being considered for the Energy Centre: these are Combined Cycle Gas Turbines (CCGTs) and/or Open Cycle Gas Turbines (OCGTs) and/or reciprocating engines.

3.4.3. The overall maximum building footprint of the Energy Centre, to be located adjacent to the Data Centre Campus, is up to approximately 60,000m^2, with a maximum building height of approximately 40m. The heights of the stacks connected to the Energy Centre are subject to further determination, to be informed by noise and atmospheric dispersion modelling as well as a landscape setting assessment.

3.4.4. Air cooling is expected to be used (rather than water cooling) for the operational Energy Centre. The boiler blowdown[22] from the Energy Centre boilers will either be treated on-site or taken off-site for treatment.

3.4.5. The Energy Centre components also includes facilities such as Battery Energy Storage System (BESS), fuels and chemical storage areas, access and parking (set out further below) and amenities for operational staff. The BESS footprint will comprise of approximately 5,000m^2.

3.4.6. Water treatment plants may be required to provide water to both the Data Centre Campus and the Energy Centre, which will utilise raw water. Storage facilities will be required.

3.4.7. As for the Data Centre Campus, the landscaping proposals involve excavation of the ground level to enable the lowering of the buildings within the landscape, within some areas of historic landfill.

3.4.8. It is anticipated that the Energy Centre will generate electrical power for the Data Centre Campus until the grid connection becomes available. Once the grid connection becomes available, the Energy Centre is envisioned to provide reserve capacity for the grid during periods of peak demand. Further information on the development options in relation to the future of the Energy Centre as a peaking plant are set out in *Section 5.9* below.

3.5. Layout

3.5.1. Both the Data Centre Campus and Energy Centre will sit within a development zone that avoids development on top of the existing historic landfill cells. However, some zones will sit within the extent

[21] *Mayor of London and Infrastructure Coordination Service 'West London Electrical Capacity Constraints' July 2022*

[22] *Boiler blowdown is the intentional removal of water from a boiler to reduce the concentration of impurities in the system.*

of historic landfilled areas. The Main Development Area will be located within the southeast of the Proposed Order Limits, adjacent to the M40.

3.6. Decarbonisation Readiness

3.6.1. The Department for Energy Security and Net Zero undertook a consultation exercise in February 2025 on the intention to amend the Environmental Permitting (England and Wales) Regulations 2016 so that new electricity generators within scope (as defined under the draft Environmental Permitting (Electricity Generating Stations) (Amendment) Regulations 2025) 'must provide and maintain a plan to decarbonise'[23]. These new regulations came into effect in England in February 2026, and have altered the previous requirement for 'carbon capture readiness' to 'decarbonisation readiness'.

3.6.2. The pathways to decarbonisation are either through Hydrogen Conversion (converting the plant to operate on 100% hydrogen fuel) or Carbon Capture, Usage and Storage (CCUS). Hydrogen Conversion is the chosen decarbonisation readiness pathway for the Proposed Development.

3.6.3. The Proposed Development will demonstrate a viable pathway to decarbonisation focussed on the four key criteria defined below set out in the Proposed Guidance:

a. Technical feasibility;

b. Space requirement for the required equipment on-site;

c. A suitable plan for hydrogen supply OR CO_2 transport and storage; and

d. Economic feasibility of the proposed decarbonisation plan.

3.6.4. Consideration to decarbonisation readiness through Hydrogen Conversion will be given in the ES. As such, for the purposes of this EIA Scoping Report, a set of assumptions on how this pathway will be delivered is set out below:

a. Hydrogen will be received at the Site via a pipeline, which will comprise either the repurposed existing natural gas pipeline (that is proposed to connect to the Energy Centre) or a new hydrogen pipeline delivered through National Gas's Project Union;

b. The pipeline connections within the Proposed Development will be designed and built to accommodate hydrogen at the outset; and

c. Modifications to the technology within the Energy Centre and use of selective catalytic reduction (SCR) will be necessary to minimise NOx emissions.

3.6.5. Further information on the assessment scenarios to be considered (as relevant) within the ES in relation to future hydrogen conversion are set out in *Section 5.10.*

3.7. Substation

3.7.1. The substation that will link the Data Centre Campus with both the Energy Centre and the electrical distribution network will be a maximum of up to approximately 20m in height and have a maximum building footprint of approximately 3,000m^2.

3.8. Waste Heat Recovery

3.8.1. There is the potential for the Proposed Development to incorporate heat recovery and offtake infrastructure capable of capturing waste heat. The heat recovery system would seek to capture waste heat from the cooling systems at temperatures suitable for low-grade thermal applications, with opportunities sought to incorporate heat exchange equipment to enable heat offtake where feasible and viable. Opportunities will be explored for the Data Centre Campus design to include appropriate infrastructure on site to allow third parties to connect into the infrastructure in the future where feasible and viable.

[23] *Available from: https://www.gov.uk/government/consultations/decarbonisation-readiness-proposed-guidance/decarbonisation-readiness-proposed-guidance. Accessed: 13 November 2025.*

3.8.2. The heat recovery system would seek to capture waste heat from the cooling systems at temperatures suitable for low-grade thermal applications, with dedicated heat exchange equipment and distribution infrastructure to enable year-round heat offtake. The Data Centre Campus design would include provision for connection to existing or planned district heating networks, alternative beneficial heat reuse pathways to maximise energy efficiency and reduce overall carbon emissions in accordance with sustainability objectives, subject to this being a feasible and viable option.

3.8.3. The maximum footprint of this building would be up to approximately 5,000m^2 with a maximum building height of approximately 12m.

3.9. Site Security

3.9.1. A security strategy will be developed for the Proposed Development to ensure high security across the Site and to reduce the risk of acts of terrorism, such as hostile vehicle strikes. It is anticipated that each layer of security will be subject to physical and electronic controls. Electronic security systems to control and monitor personnel and assets throughout the system are expected to be used throughout the Proposed Development, to restrict key access points to authorised personnel only.

3.9.2. Technology will be implemented to avoid any potential hazards in relation to risk of fire and explosion, including in line with the Control of Major Accident Hazards Regulations 2015.

3.10. Access

3.10.1. The primary vehicular access to the Site is proposed to be taken from the A40, to the northwest of the Site, provided by a new internal access road. This will provide access to the Data Centre components of the Proposed Development, with the access for the Energy Centre utilising the existing access. Both access points will be open to use by both elements of the Proposed Development in the event of an emergency. This main access road is proposed to be well incorporated within the landscaping strategy. An existing access point for the gas AGI will be maintained from the northwest corner of the Site, with a new internal road proposed along the western boundary to access the facility.

3.10.2. A secondary / emergency access could also be located to the south-east of the Site, onto Hedgerley Lane.

3.11. Car Parking

3.11.1. Car parking will be required for servicing, delivery and maintenance requirements for each component of the Proposed Development in addition to the future employees of the Proposed Development. Additionally, a small depot for Veolia to use will be included, to replace the area lost to the Proposed Development. This will include 60 car parking spaces.

3.11.2. It is estimated that the total required car parking for the Proposed Development will be approximately 260 spaces.

3.12. Landscaping and Ecology

3.12.1. In order to reduce the above ordnance datum (AOD) heights of the buildings and flues within the Proposed Development, a mixture excavation and filling of the Site to accommodate the built form is proposed to lower the floor levels of the buildings, as part of the landscape strategy.

3.12.2. In addition, the landscaping strategy incorporates bunds and substantial planting within and surrounding the Site to deliver significant ecological, biodiversity and public benefits to the surrounding area. The details of the landscaping strategy at this stage are under design development, however the proposals will deliver significant additional landscaping on the existing mineral extraction area as well as throughout the wider former landfill to build upon the enhancements delivered by the current (consented) restoration strategy associated with the former landfill areas. Consideration is also being given to the revised restoration strategy that is subject to the (pending) s73 application (Ref. CM/0031/23).

3.12.3. Design mitigation measures are being considered to reduce the visibility of the Proposed Development, and which could potentially include green roofs, canopies or landscape structures.

3.12.4. The Proposed Development will result in some vegetation and tree loss. Replacement habitats, including priority habitats (i.e. ponds, wet woodland, open mosaic habitat and mixed scrub) will be provided within the Wider Ownership Area where possible.

3.12.5. There is the potential need to re-align the existing public rights of way (PRoWs) to the east and south of the Site as part of the Proposed Development. There is also the potential for a new network of recreational footpaths to be incorporated into the Wider Ownership Area. This remains under design development.

3.12.6. Some of the ponds / lagoons within the Main Development Area that have been created or modified as a result of the landfilling activity will be infilled. All ponds outside of the Main Development Area are likely be retained with the possibility for some ponds to be reshaped as part of the landscaping design.

3.13. Lighting

3.13.1. The proposals will incorporate lighting as necessary for site security plus the potential for aviation lighting on the stacks. A detailed lighting strategy will be prepared as part of the application documentation.

3.14. Drainage and Utilities

3.14.1. There are no existing sewers or watercourses located within the vicinity the Site, but there is the potential for new sewers to be established (subject to further conversations with utility authorities). It is highly likely that all surface, ground and foul water will therefore be dealt with on-site. This will be dealt with either through a new connection to off-site sewers if feasible, or through the use of infiltration techniques or underground tanks. Solid waste from the foul systems will need to be dealt with in a treatment plant sized to suit (e.g. Klargester or similar) with occasional solids removal off site.

3.14.2. It is proposed that a new upgraded water supply is run from the local potable water network by the utility provider to feed the domestic water requirements of the data centres and the Energy Centre. Conversations are currently being held with the utility providers around the provision of raw water, which could then be treated and used on site. Fire water and process water may be sourced from raw water and / harvested rainwater supplies which are likely to be delivered via a pipeline, or through an alternative means if required. In an emergency event, contaminated water may need to be removed from site via trucks should it not be feasible to be treated within the water treatment plant.

3.15. Off-site Connectivity

3.15.1. An off-site routing corridor/s will be required for fibre connectivity.

3.15.2. Any future off-site connectivity to the distribution and transmission networks will be delivered by the relevant Distribution Network Operator and does not form part of the Proposed Development. As such there is no information available on the likely proposed route and method of delivery for this connection, although it is likely that this connection will be to the 'Amersham' electricity substation, approximately 8km to the northwest of the Site. This would be short-term works, and would likely involve the laying of below ground cabling within a dug out trench, and infilling.

3.16. Excavated Materials

3.16.1. As set out above, to facilitate the construction of the Proposed Development, excavation of the ground level will be required, some of which will be within areas of historic landfill. The quantity and composition of any landfill waste that is due to be excavated is subject to further ongoing site investigations and design considerations. Where excavated material is categorised as landfill waste, this will be transported to and disposed of at an appropriate off-site facility, and / or disposed of within the closed modern landfill cells (those with remaining capacity) located within the Wider Ownership Area. A review

is underway at the time of the preparation of this EIA Scoping Report as to whether a change to the Environmental Permit (Ref EPR/XP3636KW) would be required for this waste disposal option

3.17. Existing Uses and Operations to be Retained

3.17.1. Given the former use of the Site as a landfill, there will need to be continuation of some associated aspects of existing activities at the Site during the construction and operation of the Proposed Development, as follows:

a. Vehicle depot and associated office relating to the household waste recycling centre near the haul road entrance to the Site (this will likely be relocated within the Wider Ownership Area for the enabling and construction works, prior to a new facility being constructed);

b. Overall Site monitoring as required by the Environment Agency permit;

c. Leachate plant and associated office and haul road;

d. Landfill gas (methane) energy centre and associated office;

e. Landfill site restoration works and aftercare maintenance; and

f. Delivery and maintenance of rights of way, namely the PRoW that was diverted (and upgraded to a bridleway), as part of the approved landscape restoration design.

3.17.2. The methane from the underlying landfill is in decline and as such, whilst the landfill gas energy centre (which feeds directly into the local electrical distribution network) will continue to operate, this will continue in line with environmental permitting requirements.

3.17.3. It is expected that the existing buildings associated with the existing vehicle depot will be demolished as part of the pending s73 application (Ref. CM/0031/23), and as such it is not anticipated that there will be any demolition works associated with the Proposed Development.

3.18. Enabling and Construction

3.18.1. The enabling and construction works for the overall Proposed Development is anticipated to be approximately 11 years, with the Energy Centre and first Data Centre Hall anticipated to be complete within the first 4 years.

3.18.2. It is anticipated that construction traffic will access the Site from both the A40 at the northwest corner of the Site, via an existing haul route that is currently used for the existing Site operations, as well as through the existing access. There is the potential for temporary traffic management measures to be required on the A40 during enabling and construction.

3.19. Decommissioning

3.19.1. As set out above, it is anticipated that the Energy Centre will generate electrical power for the Data Centre Campus until the grid connection becomes available. Once the grid connection becomes available the Energy Centre is envisioned to provide reserve capacity for the grid during periods of peak demand.

3.19.2. The Energy Centre has a likely expected lifespan of at least 20-25 years (subject to the chosen technologies included in the final design), after which point, it is expected that the Energy Centre will have some residual life remaining and an investment decision would then be made based on the market conditions prevailing at that time. If the operating life were to be extended, the Energy Centre would be upgraded in line with the legislative requirements at that time.

3.19.3. The Data Centre Campus is expected to have a design life of approximately 60 years.

3.19.4. At the point when the Proposed Development (or any component of it) ceases to operate, the associated buildings and plant will be shut down, decontaminated and demolished/deconstructed. It is likely that the existing structures could be re-used either within the Site (for alternative uses) or off-site. The closure of the Energy Centre would be subject to a Decommissioning Environmental Management Plan (DEMP) in agreement with the Environment Agency, in accordance with the Environmental Permitting

process[24]. The DEMP will contain environmental monitoring and management measures to reduce the risk of pollution and associated consequences.

Information on the assessment scenarios to be considered (as relevant) within the ES in relation to future decommissioning are set out in *Section 5.10*.

[24] *Environmental Permitting (England and Wales) Regulations 2016*

4. POLICY AND GUIDANCE

4.1. Introduction

4.1.1. This section sets out the main planning policy documents taken into account in defining the scope of the EIA and which are most relevant to the Proposed Development. Environmental topic-specific Legislation, Policy and Guidance is summarised in the corresponding Technical Topic Sections of this EIA Scoping Report (see *Sections 6* and *7*). The Environmental Statement (ES) will identify all the relevant policies and guidance which will be used to inform the scope and assessment of each environmental topic.

4.2. National Policy and Guidance

National Policy Statements - Overview

4.2.1. The UK Government has designated National Policy Statements for Energy Infrastructure, forming the primary basis for decision-making on nationally significant energy projects under the PA 2008 2008[2]. Section 104 of the PA 2008 requires that applications for NSIPs be determined in accordance with any NPS which has effect in relation to development of the description to which the application relates, unless certain exceptions apply. These Statements provide the primary policy for decisions by the Secretary of State to deliver energy schemes required to meet the UK's target of net zero greenhouse gas emissions by 2050.

4.2.2. The Overarching NPS for Energy (EN-1)[25] sets the strategic direction, establishing the national need for new low-carbon energy infrastructure and setting out generic assessment principles for all technologies. It frames the role of energy in supporting economic growth, security of supply, and decarbonisation, while balancing impacts on the environment and communities.

4.2.3. The NPS for Natural Gas Electricity Generating Infrastructure (EN-2)[26] provides technology-specific policy for gas-fired generating stations, including Combined Heat and Power (CHP) and carbon capture–ready or hydrogen-capable facilities. EN-2 recognises that while the UK is transitioning to a fully decarbonised power system, flexible and reliable natural gas generation remains essential to maintaining security of supply and affordability, as stated at Paragraph 1.1.2: *"The majority of new generating capacity will need to be low carbon. But new unabated natural gas generating capacity will also be needed during the transition to net zero".* It emphasises that such infrastructure, where this is decarbonisation ready, continues to form part of the Critical National Priority for energy, ensuring that the electricity system remains stable during periods of low renewable output, while being designed to support future decarbonisation through Carbon Capture and Storage (CCS) or hydrogen conversion.

4.2.4. The NPS for Electricity Networks Infrastructure (EN-5)[27] addresses the grid infrastructure required to connect new generation and deliver power securely across the country. It highlights that network expansion and reinforcement are essential to realise renewable ambitions and to accommodate rising electricity demand. EN-5 places electricity networks on the same footing as generation projects as Critical National Priority infrastructure, providing detailed guidance on routing, design, and mitigation of impacts such as landscape, biodiversity, noise, electromagnetic fields, and the use of greenhouse gases in equipment.

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[25] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1). Available: https://assets.publishing.service.gov.uk/media/695d1015f41883f4e50ed9ab/overarching-national-policy-statement-for-energy-en-1-web-accessible.pdf Accessed: 15 January 2026.*

[26] *Department for Energy Security & Net Zero (2024) National Policy Statement for natural gas electricity generating infrastructure (EN-2). Available from: https://www.gov.uk/government/publications/national-policy-statement-for-natural-gas-electricity-generating-infrastructure-en-2. Accessed: 9 October 2025.*

[27] *DESNZ (2026) National Policy Statement for Electricity Networks Infrastructure (EN-5). Available: https://assets.publishing.service.gov.uk/media/695d12e1b5c46330350ed9a1/national-policy-statement-for-electricity-networks-infrastructure-en-5-web-accessible.pdf Accessed: 15 January 2026.*

4.2.5. While it is not yet released, the UK Government have confirmed that a National Policy Statement for Data Centres is being prepared, and will be published in 2026. The statement (UIN HCWS966) released on this states that "*this will set out the national policy for this sector and the policy framework for decision-making for data centres."*[28].

4.2.6. These documents, from a planning policy perspective, have been the main focus in terms of scoping the EIA. National Policy Statement for Energy (EN-1).

4.2.7. Part 3 of the Overarching National Policy Statement for Energy (EN-1) establishes the *"Government sees a need for significant amounts of new large-scale energy infrastructure to meet government's energy objectives*" (para. 3.1.1, p. 23). It emphasises that "*the government considers that the need for such infrastructure is urgent*" (para. 3.1.1, p. 23). In June 2019, the UK became the first major economy to legislate for a 2050 net zero Greenhouse Gases ('GHG') emissions target through the Climate Change Act 2008 (2050 Target Amendment) Order 2019. The NPS explains that such large-scale energy infrastructure development is essential to *"ensure our supply of energy always remains secure, reliable, affordable, and consistent with net zero emissions in 2050"* (para. 3.2.1 p. 23) in line with the UK's statutory commitments under the Climate Change Act 2008.

4.2.8. EN-1 outlines that a range of different types of energy infrastructure will be required to deliver these objectives, including both established and emerging low-carbon technologies. The Clean Power 2030 Action Plan, which was published by the UK government in December 2024, is relevant in this regard and which "*sets out infrastructure deployment pathways and generation capacity ranges that will ensure by 2030 clean sources produce at least 95% of Great Britain's generation, meeting the sixth Carbon Budget advice and pushing the country towards net zero 2050"* (para 2.26, p.15).

4.2.9. EN-1 states "*Meeting the Clean Power 2030 Mission objectives necessitates a significant investment in new energy infrastructure, both large nationally significant developments and smaller-scale developments determined at a local level"* (para 2.3.4, p. 16), and that this will be "*driven through rapid deployment of low carbon generation, flexibility infrastructure, and electricity transmission infrastructure*" (para 2.3.5, p. 16). The NPS clarifies that it is for industry to propose viable projects within the strategic framework set by Government policy. The NPS therefore places a clear presumption in favour of such proposals, stating that the Secretary of State "*should assess all applications for development consent … on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent*" (para. 3.2.8, p. 24). However, *"That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused."* (4.1.3 p. 55) Further, "*substantial weight should be given to this need when considering applications for development consent*" (para. 3.2.9, p. 25). The Secretary of State is not required "*to consider separately the specific contribution of any individual project to satisfying the need established in this NPS*" (para. 3.2.10, p. 25).

4.2.10. The Clean Power 2030 Action Plan and EN-1 indicate a policy shift in the role of unabated gas-fired generation. One of the Government's objective is that, by 2030, clean sources should produce at least 95% of Great Britain's generation, with unabated gas retained principally as strategic reserve capacity to maintain security of supply when intermittent renewable output is low or demand is unusually high. The Action Plan states that security of supply to 2030 will be protected through the maintenance of an expected 35GW of unabated gas reserve capacity, and subsequent Government policy material explains that no more than 5% of Great Britain's total generation is expected to come from unabated gas in a typical weather year by 2030. Therefore, national policy does not impose a blanket restriction on new gas-fired generation – indeed provisions are made for new combustion plants - instead, it requires such generation to be understood as part of a transitional and increasingly constrained role within the electricity system, pending the scale-up of low-carbon dispatchable technologies. In that context, the relevant policy considerations for the Proposed Development are whether it would

28 UK Parliament, 2025, National Infrastructure Planning: Data Centres – Statement made on 15 October 2025, https://questions-statements.parliament.uk/written-statements/detail/2025-10-15/hcws966 (accessed 8 January 2026)

contribute to security of supply and whether it is capable of future decarbonisation, including through carbon capture and storage and / or hydrogen conversion in accordance with the emerging Decarbonisation Readiness framework. In this respect, Clean Power 2030 notes that the Government area developing a Hydrogen to Power business model which will de-risk investment and bring forward capacity; albeit there is recognition that the Clean Power 2030 capacities are most stretching for hydrogen to power and power bioenergy due to limited availability of transport and storage infrastructure for hydrogen and CO2 respectively.

4.2.11. Section 3.3 of EN-1 sets out the detailed justification for new nationally significant electricity infrastructure. Paragraph 3.3.1 notes that "*electricity meets a significant proportion of our overall energy needs and our reliance on it will increase as we transition our energy system to deliver our… net zero targets*." It highlights that sufficient capacity must exist "*to always meet demand; with a margin to accommodate unexpectedly high demand and to mitigate risks such as unexpected plant closures and extreme weather events*" (p. 26).

4.2.12. EN-1 recognises that combustion power stations continue to play an important role in providing dispatchable, flexible generation when output from intermittent renewables is low (paragraph 3.3.35). While such plant produces residual greenhouse gas emissions, its operation must decline over time unless it can decarbonise through technologies such as carbon capture and storage (CCS) or conversion to low-carbon hydrogen. All commercial-scale combustion plants of 300 MW or more are required to be Carbon Capture Ready, with Government intending to replace this with a Decarbonisation Readiness regime (paragraph 3.3.35). Combined-cycle gas turbines (CCGTs) equipped with CCS can reduce emissions by 90 percent or more while offering flexible generation to balance the grid (paragraph 3.3.43). The NPS confirms that, although low-carbon alternatives will increasingly replicate the role of natural gas, some unabated gas-fired generation may still be required on a limited basis for security of supply, providing affordable reliability even towards 2050 where residual emissions are offset by greenhouse gas-removal technologies (paragraph 3.3.47).

4.2.13. EN-1 also references the role of hydrogen in providing a decarbonisation pathway for unabated gas generation, stating "*Hydrogen to power can play a key role in our electricity system by providing low carbon dispatchable generation at a range of scales and a decarbonisation pathway for unabated gas generation*" (para 3.3.48, p. 35), therefore recognising the role that hydrogen to power will play in achieving decarbonisation readiness.

4.2.14. Part 4 of the Overarching National Policy Statement for Energy (EN-1) sets out the overarching assessment principles that must guide both the preparation of applications for nationally significant energy infrastructure and the Secretary of State's decision-making on such proposals. These principles represent the core policy framework through which the need for development (established in Part 3) is to be balanced against its potential environmental and social effects. They also provide clarity to developers and stakeholders on the information expected within applications and how decisions will be made under the PA 2008. The key assessment principles are summarised below:

a. **Presumption in Favour of Development (4.1):** The Secretary of State must start from a presumption in favour of granting consent for energy NSIPs, given the urgent national need set out in Part 3. This presumption can be outweighed only where specific and relevant policies, or statutory considerations under the Planning Act 2008, clearly indicate refusal. In assessing proposals, decision-makers are required to weigh their benefits (including contribution to energy need, economic growth, and environmental enhancement) against potential adverse effects, ensuring mitigation and compensation measures are fully considered;

b. **Critical National Priority for Low-Carbon Infrastructure (4.2):** The Government has designated low-carbon energy infrastructure as a "critical national priority". Low carbon energy infrastructure is defined as *"for electricity generation, all onshore and offshore generation that does not involve fossil fuel combustion (that is, renewable generation, including anaerobic digestion and other plants that convert residual waste into energy, including combustion, provided they meet existing definitions of low carbon; and nuclear generation), as well as*

natural gas fired generation which is carbon capture ready" (para 4.2.17, p. 62). The Government's Decarbonisation Readiness (DR) reforms, which replaced the CCR regime from 28 February 2026, expand the definition and intent of readiness. Under the new framework (as introduced by the *Environmental Permitting (Electricity Generating Stations) (Amendment) Regulations 2025*), combustion-based generating stations will be expected to demonstrate credible potential for future decarbonisation through either carbon capture and storage (CCS) or conversion to hydrogen. Substantial weight must therefore be given to developments that contribute to decarbonisation and support delivery of the UK's carbon budgets and net-zero commitments. The NPS states *"The overarching need case for each type of energy infrastructure and the substantial weight which should be given to this need in assessing applications, as set out in paragraphs 3.2.6 to 3.2.8 of EN-1, is the starting point for all assessments of energy infrastructure applications."* (para. 4.2.19, p. 63);

c. **Environmental Effects and Considerations (4.3):** Applicants must assess the likely significant historical environmental, natural environmental, social, and economic effects of a project across all stages (e.g. construction, operation, and decommissioning) using the mitigation hierarchy of avoid, reduce, mitigate, and compensate. Cumulative and transboundary effects should also be evaluated to ensure the full range of impacts is understood;

d. **Human Health and Wellbeing (4.4):** Proposals should consider potential impacts on human health and quality of life, including effects related to air quality, odour, hazardous waste and substances, noise, light, water quality, land contamination, and access to open space. Mitigation measures must be identified where significant effects on wellbeing are likely;

e. **Environmental and Biodiversity Net Gain (4.6):** Projects should seek to achieve measurable biodiversity net gain and enhance natural capital. The design process should identify opportunities to improve habitats, connectivity, and ecosystem services, contributing to wider environmental recovery objectives. In addition to delivering biodiversity net gain, *"developments may also deliver wider environmental gains and benefits to communities relevant to the local area, and to national policy priorities … The scope of potential gains will be dependent on the type, scale, and location of specific projects. Applicants should look for a holistic approach to delivering wider environmental gains and benefits through the use of nature-based solutions and Green Infrastructure* (para 4.6.13, p. 68). These gains and benefits can include reductions in GHG emissions, reduced flood risk, improvements to air or water quality, climate adaptation, landscape enhancement, increased access to natural greenspace, or the enhancement, expansion or provision of trees and woodlands;

f. **Good Design (4.7):** EN-1 highlights that good design for energy infrastructure encompasses sustainability, functionality, and resilience as well as appearance (para. 4.7.1). Infrastructure should be sensitive to place, including impacts on heritage and designed to make efficient use of land and resources throughout construction and operation (para. 4.7.2). The NPS stresses that good design is a key mechanism through which wider policy objectives can be achieved, for example, through siting, layout, and the use of appropriate technologies to mitigate impacts such as noise or visual intrusion (para. 4.7.3). Applicants are expected to embed design quality "*from the early stages of the project lifecycle*" (para. 4.7.4), establishing clear design principles that guide the project from conception to operation. (para. 4.7.5). EN-1 recognises that the visual form of some energy infrastructure may be dictated by operational requirements, but encourages applicants to demonstrate good design in siting relative to landscape character, landform, and vegetation (para. 4.7.6). Sensitive use of materials in associated development, such as substations or plant housing, can enhance local character, and opportunities for nature-inclusive design should be incorporated where possible (para. 4.7.6). Applicants must demonstrate how the design evolved, including alternatives considered and professional design advice taken (paras. 4.7.7–4.7.8). For decision making, the Secretary of State must be satisfied that developments are "*sustainable and… as attractive, durable, and adaptable… as they can be*" (para. 4.7.10). EN-1 advises that design should balance operational, safety, and security needs with wider environmental and landscape impacts, assessed over the full design life of the scheme (paras. 4.7.12–4.7.13);

g. **Combined Heat and Power (4.8):** For thermal generating stations, opportunities for combined heat and power and district heating must be considered. Where viable, projects should include provision for heat export or future network connection. If CHP is not feasible, applicants should provide clear justification;

h. **Carbon Capture and Storage (4.9):** The NPS states that "*all applications for new combustion plants which are of generating capacity at or over 300MW and of a type covered by The Carbon Capture Readiness (Electricity Generating Stations) Regulations 2013 should demonstrate that the plant is "Carbon Capture Ready" (CCR) before consent may be given*." (para. 4.9.25, p. 92). However, the Government has replaced CCR with a broader Decarbonisation Readiness regime. Following consultation in 2023 and publication of the Government's response in October 2024, the Environmental Permitting (Electricity Generating Stations) (Amendment) Regulations 2025 introduce DR requirements into the Environmental Permitting (England and Wales) Regulations 2016. The new framework has removed the 300 MW threshold, extend applicability to a wider range of combustion plant (including biomass, CHP and energy-from-waste), and allow compliance through either carbon capture or hydrogen conversion. The DR regime now applies to environmental permit applications submitted on or after 28 February 2026, and has since superseded the existing CCR policy in England;

i. **Climate Change Adaptation (4.10):** All projects should assess resilience to future climate conditions, including increased temperatures, changes in precipitation, sea-level rise, and extreme weather. The Secretary of State will expect to see design and operational measures that secure long-term safety and reliability under projected climate scenarios;

j. **Network Connection (4.11):** Applicants must demonstrate that the proposed project can connect safely and efficiently to the electricity or gas network. Early coordination with network operators is encouraged to ensure technical feasibility and minimise the environmental effects of grid connection infrastructure;

k. **Pollution Control and Regulatory Regimes (4.12):** Pollution from industrial sources is controlled through the Environmental Permitting (England and Wales) Regulations 2016, which require facilities to hold a permit and to operate using Best Available Techniques to minimise emissions (paras. 4.12.3–4.12.4). Applicants are expected to engage early with regulators such as the Environment Agency, Natural Resources Wales to discuss Environmental Permitting and other consents, ideally submitting these in parallel with any development consent application (paras. 4.12.6–4.12.8). For decision-making, the Secretary of State should focus on whether the development itself is an acceptable use of the land or sea rather than on the detailed control of processes or emissions (para. 4.12.9). The NPS makes clear that the Secretary of State "*should act to complement but not seek to duplicate*" the role of environmental regulators, assuming that the relevant control regimes "*will be properly applied and enforced*" (para. 4.12.10). Before granting consent for potentially polluting development, the Secretary of State must be satisfied, in consultation with the relevant authorities, that potential releases can be adequately regulated, and that cumulative pollution effects would not breach statutory environmental quality limits (para. 4.12.14). Refusal on pollution grounds should occur only where there is good reason to believe that the necessary operational permits or consents would not subsequently be granted (para. 4.12.15);

l. The planning system should not duplicate the role of environmental regulatory bodies, but applicants must confirm compliance with relevant pollution control and permitting requirements;

m. **Safety (4.13):** All projects must comply with applicable health and safety legislation and demonstrate that risks to workers, the public, and the environment are minimised through design, operation, and management. The Health and Safety Executive and other relevant bodies may advise the Secretary of State where appropriate;

n. **Hazardous Substances and Major Accidents (4.14):** Developments involving hazardous materials or presenting major accident risks must comply with the Control of Major Accident Hazards (COMAH) Regulations. Applicants should demonstrate robust containment, safety management, and emergency response measures proportionate to identified risks;

o. **Common Law Nuisance and Statutory Authority (4.15):** Applicants should design and operate projects to minimise nuisance effects such as noise, odour, dust, or light. The Secretary of State can disapply statutory protection from nuisance where effects are not inevitable consequences of the authorised development, reinforcing the importance of proactive mitigation; and

p. **Security Considerations (4.16):** Energy infrastructure forms part of the UK's critical national infrastructure, requiring appropriate security and resilience measures. Applicants should engage with relevant authorities (such as NPSA, ONR, and DESNZ) to ensure potential security implications are fully assessed and addressed through project design and operation.

4.2.15. Part 5 of the Overarching National Policy Statement for Energy (EN-1) sets out the generic impacts that commonly arise from the development of nationally significant energy infrastructure. These impacts represent the main environmental and socio-economic topics to be addressed by applicants within their Environmental Statements (ES) and by the Secretary of State in determining development consent applications. Paragraph 5.1.2 confirms that the list of impacts is not exhaustive. Applicants should identify all likely significant effects relevant to their specific project, including those described in EN-1 and any others arising from site-specific circumstances. The Secretary of State will then balance these impacts against the benefits of the proposal, ensuring appropriate mitigation, compensation, and enhancement measures are secured where necessary. The key generic impacts are summarised below.

a. **Air Quality and Emissions (5.2):** Applicants must assess all relevant air quality effects during both construction and operation, including emissions to air, dust generation, and secondary impacts such as odour and particulates. Assessment should follow current national air quality objectives and guidance, with particular attention to effects within or near Air Quality Management Areas (AQMAs). Mitigation may include emission controls, dust suppression, and monitoring. The Secretary of State will consider the significance of residual effects and may refuse consent where unacceptable air quality impacts remain;

b. **Greenhouse Gas Emissions (5.3):** All projects must quantify direct and indirect greenhouse gas (GHG) emissions and demonstrate alignment with the UK's legally binding carbon budgets and 2050 net-zero target. Applicants should describe how emissions have been minimised through design, technology selection, and operational efficiency. The Secretary of State will give weight to proposals that contribute to decarbonisation and expect evidence that remaining emissions have been reduced as far as practicable;

c. **Biodiversity and Geological Conservation (5.4):** Applicants should identify, map, and assess potential effects on habitats, species, and geological features. Development should avoid significant harm to biodiversity wherever possible through careful site selection and design. Where impacts cannot be avoided, mitigation or compensation must be provided to achieve measurable net gain. The Secretary of State will take account of the project's contribution to biodiversity enhancement and compliance with statutory protections;

d. **Civil and Military Aviation and Defence Interests (5.5):** Projects must consider potential effects on aviation safety, radar systems, and defence operations. Applicants are expected to consult with the Ministry of Defence, Civil Aviation Authority, and National Air Traffic Services at an early stage. Proposals should incorporate design or operational measures to address identified conflicts or interference. The Secretary of State will only grant consent where safety and defence functions are not compromised;

e. **Dust, Odour, Artificial Light, Smoke, Steam and Insect Infestation (5.7):** Applicants must evaluate potential nuisance impacts from construction and operation, including emissions of dust, odour, light, smoke, or steam. Mitigation should include best-practice construction management, appropriate containment, and design measures to minimise visual and amenity effects. The Secretary of State will consider whether residual effects are acceptable in the context of the project's overall benefits;

f. **Flood Risk (5.8):** Projects must comply with the National Planning Policy Framework's flood risk approach, applying the sequential and, where necessary, exception tests. Flood Risk Assessments should demonstrate that development is safe, resilient, and does not increase flood risk elsewhere. Where infrastructure is located in flood-prone areas, measures such as raised platforms, flood storage, or sustainable drainage should be incorporated. The Secretary of State will seek assurance that flood risks are managed for the project's lifetime, including under climate change scenarios;

g. **Historic Environment (5.9):** Applicants should assess the significance of affected heritage assets and identify potential impacts on their fabric, setting, or context. The approach should follow national heritage policy and best practice guidance. Proposals should aim to sustain and enhance the significance of heritage assets and put them to viable uses consistent with their conservation. Where harm is unavoidable, it must be clearly justified and weighed against public benefits;

h. **Landscape and Visual (5.10):** EN-1 recognises that "*the landscape and visual effects of energy projects will vary on a case-by-case basis according to the type of development, its location and the landscape setting*" (para. 5.10.1). For thermal combustion infrastructure, such as an energy centre, key features including stacks, exhausts, and associated buildings can create prominent visual elements within the landscape (para. 5.10.2). The NPS stresses that while "*virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape*," careful siting, layout and design can minimise these effects and, where possible, deliver beneficial changes through mitigation or enhancement (paras. 5.10.5–5.10.6). The assessment of landscape and visual effects should be proportionate to the development and informed by recognised best practice, including GLVIA3 and relevant Landscape Character Assessments (para. 5.10.16–5.10.17). EIA should consider impacts during both construction and operation, including potential effects on local landscape character, designated landscapes, visual receptors, and amenity. For any cooling or stack infrastructure, applicants are expected to justify the use of Best Available Techniques where visible steam plumes or tall structures are proposed (para. 5.10.23). The NPS confirms that applicants should demonstrate how landscape and visual considerations have informed early design decisions, showing how adverse effects have been minimised and enhancement opportunities secured (para. 5.10.19). Mitigation may include adjustments to scale, colour, materials, or the integration of landscape planting both on- and off-site (paras. 5.10.26–5.10.28). The Secretary of State will ultimately weigh the degree of landscape and visual change against the national need and wider benefits of the project (para. 5.10.35–5.10.36);

i. **Land Use, Open Space, Green Infrastructure and Green Belt (5.11):** Projects should assess potential conflicts with existing land uses, including agricultural land, open space, and designated Green Belt areas. Losses of productive land or open space should be minimised and justified. Development within the Green Belt will require demonstration of "very special circumstances" and the absence of reasonable alternatives. The Secretary of State will give substantial weight to any identified harm to the Green Belt;

j. **Noise and Vibration (5.12):** Applicants must assess potential noise and vibration impacts during both construction and operation, using appropriate standards (e.g. BS 4142, BS 5228). The assessment should identify sensitive receptors and propose mitigation such as acoustic barriers, plant enclosures, or operational controls. The Secretary of State will expect evidence that noise impacts have been minimised and that predicted levels remain within acceptable limits;

k. **Socio-Economic Impacts (5.13):** Projects should identify their socio-economic effects, including employment generation, skills development, local business opportunities, and potential adverse impacts such as community disruption or pressure on services. The Secretary of State will give positive weight to projects that contribute to local and national economic growth, levelling-up, and the just transition to net zero;

l. **Traffic and Transport (5.14):** Applicants must assess transport impacts during construction and operation, including the movement of workers, materials, and abnormal loads. Transport

Assessments and Travel Plans should be prepared where relevant. Proposals must ensure safe and suitable access for all users and avoid unacceptable effects on the local highway network. The Secretary of State will expect to see measures that promote sustainable transport and minimise disruption;

m. **Resource and Waste Management (5.15):** Projects should consider how materials, energy, and water are used efficiently and how waste will be minimised, reused, or recycled. The assessment should identify opportunities for circular-economy principles in design and construction. The Secretary of State will support approaches that reduce resource consumption and promote sustainable waste management; and

n. **Water Quality and Resources (5.16):** Applicants must assess effects on surface and groundwater quality, hydrology, and water resources. The assessment should demonstrate compliance with the objectives of the Water Framework Directive and avoid unsustainable abstraction. Mitigation may include water-efficient design, pollution control measures, and sustainable drainage systems. The Secretary of State will not grant consent where unacceptable adverse effects on water quality or availability remain.

National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2)

4.2.16. The National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2) sets out the Government's policy for assessing applications for nationally significant natural gas-fired electricity generating stations under the PA 2008. It should be read alongside the Overarching NPS for Energy (EN-1), which establishes the general need and policy principles for energy infrastructure.

4.2.17. Section 1.1 of EN-2 confirms that, although the UK is committed to ensuring that "*by 2035, all our electricity will come from low-carbon sources, subject to security of supply*" (p. 4), "new unabated natural gas generating capacity will also be needed during the transition to net zero" (p. 4) to maintain reliability and affordability. EN-2 therefore recognises the continuing role of flexible gas-fired generation as part of a secure, low-carbon transition.

4.2.18. EN-2 applies to onshore natural gas-fired generating stations above 50 MW in England (and 350 MW in Wales), including facilities designed for Combined Heat and Power and those that are Carbon Capture Ready or Carbon Capture and Storage-enabled. It also notes that hydrogen-fired plants of equivalent scale will fall under the same consent regime, reflecting the Government's expectation of progressive fuel decarbonisation. The NPS designates carbon-capture-ready gas generation as Critical National Priority (CNP) infrastructure, confirming that *"the assessment principles outlined in Section 4 of EN-1 continue to apply"* and that applicants must show how *"likely significant negative effects are avoided, reduced, or compensated for"* through the mitigation hierarchy (p. 6). However, as noted previously, CCR has since been replaced with a broader Decarbonisation Readiness, removing the 300 MW threshold and allowing compliance through hydrogen conversion.

4.2.19. EN-2 identifies a range of environmental impacts relevant to natural gas electricity generating stations, including those related to air quality and greenhouse gas emissions, landscape and visual effects, noise and vibration, and water quality and resources. These impacts must be assessed in accordance with the overarching principles and topic-specific policies set out in EN-1 Part 5. The NPS makes clear that the list is not exhaustive, and applicants must provide information on all relevant impacts identified through scoping (para. 2.4.23).

a. **Air Quality and Greenhouse Gas Emissions** – EN-2 requires applicants to undertake a detailed air quality and GHG assessment, consulting with the Environment Agency and other statutory bodies from the outset. Mitigation may include technologies such as Selective Catalytic Reduction to control nitrogen oxides (NOx) emissions. The Secretary of State must be satisfied that such secondary effects are identified, assessed, and appropriately managed through the ES;

b. **Landscape and Visual** – EN-2 highlights that natural gas generating stations, by their nature, involve large-scale built forms (turbine halls, exhaust stacks, cooling towers, and ancillary

structures) that will affect landscape character and visual amenity. Continuous night-time lighting may compound these impacts. Applicants must therefore prepare a Landscape and Visual Impact Assessment (LVIA), demonstrating how siting, layout, and design reduce visual intrusion. Mitigation should focus on site-specific design responses, including building orientation, architectural treatment, and the use of earth bunding, planting, and screening. Within designated landscapes, schemes must demonstrate how they further the purposes of the designation, going beyond simple minimisation of effects;

c. **Noise and Vibration** – Noise impacts must be assessed. The primary mitigation measure is good acoustic design, such as enclosing plant and machinery within noise-attenuating structures, and applying exhaust silencing to gas turbines. Noise from ancillary plant that cannot be enclosed should be reduced through careful equipment specification and strategic layout; and

d. **Water Quality and Resources** – Projects likely to affect water quality or hydrological systems must undertake an assessment demonstrating measures to avoid or minimise adverse effects from the abstraction and discharge of cooling water. EN-2 identifies potential impacts including thermal discharges, altered flow regimes, sediment and habitat changes, fish impingement or entrainment, and chemical pollution from anti-fouling treatments. Mitigation should therefore include careful siting of intake and outfall structures, fish protection measures, and temperature control systems to limit ecological disturbance.

The National Policy Statement for Electricity Networks Infrastructure (EN-5)

4.2.20. EN-5 outlines that UK energy security and reliability are highly dependent on having an electricity network capable of enabling new generation, storage and interconnection to meet rising demand on the path to net zero. EN-5 states that "*A significant amount of new network infrastructure is required in the near term to directly support the government's ambition to meet our Clean Power 2030 Mission*" (p. 4), and that "*The electricity network infrastructure to support the government's Clean Power 2030 Mission is as important as the generation infrastructure*" (p.4).

4.2.21. EN-5 confirms the Critical National Priority status for grid projects, stating *"all power lines in scope of EN-5… and associated infrastructure such as substations"* are CNP and *"should be progressed as quickly as possible,"* (p.4-5) with EN-1's Part 4 assessment principles and mitigation hierarchy applying in full. EN-5 covers above-ground electric lines ≥132kV and >2 km (subject to statutory exceptions), plus associated and related infrastructure (including offshore transmission of any type, underground cables at any voltage, converter stations and substations) where these fall into the PA2008 regime (e.g., as associated development or via a Section 35 direction).

4.2.22. Sections 2.1–2.11 of EN-5 set out the policy and assessment considerations for electricity network infrastructure, building on the assessment principles in EN-1. Applicants must demonstrate compliance with EN-1's Parts 4 and 5 while addressing topic-specific matters relating to site selection and design, climate resilience, good design, biodiversity, landscape and visual impact, noise and vibration, and electric and magnetic fields. EN-5 promotes strategic, co-ordinated planning of network infrastructure, encouraging routeing and design that minimise environmental and community impacts and maximise opportunities for biodiversity net gain. It also emphasises the importance of holistic design (applying established siting principles such as the Holford and Horlock Rules) and of early engagement with landowners and statutory bodies to identify and mitigate potential effects. The Secretary of State's decision-making is guided by these principles, ensuring that development proposals for network infrastructure are resilient, well-designed, and environmentally responsible.

National Planning Policy Framework

4.2.23. Whilst NPSs provide the main policy basis for decisions on nationally significant infrastructure projects other policy may be considered relevant. The main national planning policy is the National Planning Policy Framework (NPPF)[29].

4.2.24. The latest version of the National Planning Policy Framework (NPPF) was adopted in December 2024 (revised in February 2025). The policies contained within the NPPF are expanded upon and supported by the 'Planning Practice Guidance' (Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government, 2024[30]).

4.2.25. The NPPF sets out the Government's planning policies for England and how these are to be applied. It is a material consideration in planning decisions. Paragraph 5 of the NPPF states that the document does not contain specific policies for NSIP and that applications in relation to NSIP are to be determined in accordance with the decision-making framework set out in the PA 2008 and relevant NPS, as well as any other matters that are considered both important and relevant. However, matters that can be considered to be both important and relevant to NSIP may include the NPPF and the policies within it.

4.2.26. Sections of the NPPF that are of particular relevance to the scope of the EIA include:

a. Chapter 2 – Achieving sustainable development;
b. Chapter 6 – Building a strong, competitive economy;
c. Chapter 11 – Making effective use of land;
d. Chapter 12 – Achieving well-designed and beautiful places;
e. Chapter 13 – Protecting Green Belt Land;
f. Chapter 14 – Meeting the challenge of climate change, flooding and coastal change;
g. Chapter 15 – Conserving and enhancing the natural environment; and
h. Chapter 16 – Conserving and enhancing the historic environment.

4.2.27. The NPPF is supported by the National Planning Practice Guidance (PPG)[31], which was first published in March 2014. NPPG is available as a web-based resource and is updated as and when required.

4.3. Local Planning Policy and Guidance

4.3.1. The Site is located within Buckinghamshire Council (BC), which was formed on 1 April 2020, when the District Councils of Aylesbury Vale, Chiltern, South Bucks and Wycombe were merged into a single, unitary council. Prior to this unification of BC, the Site was located within the boundaries of South Bucks District Council (SBDC).

4.3.2. BC inherited the local development plan documents for each of the aforementioned district councils, and so the SBDC local plan is still relevant when considering the Site. The statutory development plan for the area currently comprises the following documents:

a. South Bucks Local Plan (Adopted 1999, consolidated 2007 and 2011)[32];
b. South Bucks Core Strategy (2011)[23];
c. Buckinghamshire Minerals and Waste Local Plan 2016-2036 (2019)[33];

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[29] *Ministry of Housing, Communities and Local Government 2025. National Planning Policy Framework. Available from: https://www.gov.uk/government/publications/national-planning-policy-framework--2. Accessed: 13 November 2025.*
[30] *Available from: https://www.gov.uk/government/collections/planning-practice-guidance. Accessed: 9 October 2025.*
[31] *Available form: https://www.gov.uk/government/collections/planning-practice-guidance. Accessed: 9 October 2025.*
[32] *Available from: https://www.buckinghamshire.gov.uk/planning-and-building-control/planning-policy/local-planning-guidance/local-development-plans/. Accessed: 9 October 2025.*
[33] *Buckinghamshire Council, 2019, Buckinghamshire Minerals and Waste Local Plan 2016-2036. Available from: https://www.buckinghamshire.gov.uk/planning-and-building-control/building-or-improving-your-property/minerals-and-waste/. Accessed: 9 October 2025.*

d. Buckinghamshire Green Belt Assessment (2016)[34];

e. Chiltern and South Bucks Strategic Flood Risk Assessment Level 1 (2018)[23]; and

f. Chiltern and South Bucks Strategic Flood Risk Assessment Level 2 (2018)[23].

4.3.3. It is considered that these documents may be 'important and relevant' as defined by EN-1.

South Bucks District Local Plan

4.3.4. The South Bucks District Local Plan[23] was adopted by Buckinghamshire Council in March 1999 and subsequently consolidated in September 2007 and February 2011. As detailed above, it remains relevant for determination of planning applications in the district.

4.3.5. The Local Plan sets out the vision for the district and the approach to development. The plan sets out future policies of South Bucks relating to how its towns and villages will develop, continue to protect and enhancing the natural environment, maintaining the green belt, and support more sustainable forms of travel.

4.3.6. The technical assessments of the EIA will take into consideration related policies and where appropriate inform the design of the Proposed Development. Key policies of relevance to the EIA in the Local Plan are:

a. GB1 – Green Belt Boundaries and the Control over Development in the Green Belt;

b. GB4 – Employment Generating and Commercial Development in the Green Belt;

c. L10 – Proposals Involving Felling or other Works affecting Trees Covered by a Tree Preservation Order;

d. EP3 – The Use, Design and Layout of Development;

e. EP4 – Landscaping;

f. EP5 – Sunlight and Daylight;

g. EP6 – Designing to Reduce Crime;

h. TR5 – Accesses, Highway Works and Traffic Generation; and

i. TR7 – Parking Provision.

South Bucks Core Strategy

4.3.7. The South Bucks Core Strategy[23] was adopted in 2011 and is the key document in the South Bucks Local Development Framework. It sets out the long-term vision, objectives and broad strategy for accommodating future development in the District in the period to 2026.

4.3.8. Key policies of relevance to the EIA in the Core Strategy are:

a. Core Policy 8 – Built and Historic Environment;

b. Core Policy 9 – Natural Environment;

c. Core Policy 10 – Employment;

d. Core Policy 12 – Sustainable Energy; and

e. Core Policy 13 – Environmental and Resource Management.

Buckinghamshire Minerals and Waste Local Plan 2016-2036

4.3.9. The Buckinghamshire Minerals and Waste Local Plan (MWLP) forms the land use planning strategy for minerals and waste development within the administrative area of Buckinghamshire County. It provides

[34] *Buckinghamshire Council, 2016, Buckinghamshire Green Belt Assessment. Available from: https://www.buckinghamshire.gov.uk/planning-and-building-control/strategic-planning-and-infrastructure/strategic-planning/green-belt-assessment/. Accessed: 9 October 2025.*

guidance regarding industry investment, the level of minerals and waste development needed to support the development of sustainable communities and infrastructure and where in the county such development should go.

4.3.10. Key policies of relevance to the EIA in the Minerals and Waste Local Plan are:

a. Policy 7: Provision of Secondary and Recycled Aggregates;
b. Policy 12: Disposal to Landfill;
c. Policy 24: Environmental Enhancement;
d. Policy 25: Delivering High Quality Restoration and Aftercare; and
e. Policy 26: Safeguarding of Minerals Development and Waste Management Infrastructure.

Draft Local Plan for Buckinghamshire

4.3.11. The new Local Plan for Buckinghamshire is currently being drafted, with submission of the new Local Plan anticipated to be in December 2026. Public consultation on the draft Local Plan took place between 17 September and 29 October 2025. The new Local Plan for Buckinghamshire will detail the strategy for meeting Buckinghamshire's future housing and employment requirements through to 2045 and will set out what infrastructure is needed to support growth, whilst also protecting the environment.

4.3.12. This is the first Local Plan to cover the whole of Buckinghamshire since the creation of the unitary authority and is being prepared in the context of national planning reforms, including a revised method for calculating housing need which significantly increases the county's housing requirement. It also reflects the National Planning Policy Framework, which places additional obligations on local plans to meet the needs of the modern economy, including digital infrastructure such as data centres.

4.3.13. These current draft policies are considered relevant to the Proposed Development:

a. EC1 – Strategic and Key Employment Sites;
b. EC2 – Other Employment Sites;
c. EC3 – Skills and Local Employment;
d. EC4 – Data Centres;
e. NE4 – Biodiversity (Protection and Enhancement of Notable Species);
f. NE5 – Biodiversity Gain and Nature Recovery;
g. NE6 – Green Infrastructure;
h. NE7 – Resisting the Loss of Existing Green Space;
i. NE8 – Trees, Ancient and Veteran Trees, Woodland, Orchards;
j. NE9 – Ecological Enhancements;
k. NE10 – Mitigating Light Impacts;
l. NE16 – Protection of the Green Belt;
m. NE19 – Landscape Character and Visual Amenity;
n. NE20 – Pollution, Air Quality and Contaminated Land;
o. TR1 – Transport Requirements in New Developments;
p. TR2 – Transport Improvements;
q. TR3 – Parking Standards;
r. TR4 – Public Rights of Way; and
s. IN1 – Infrastructure Delivery.

Gerrards Cross Neighbourhood Plan

4.3.14. Following the independent examination of the Gerrards Cross Draft Neighbourhood Plan, Buckinghamshire Council has now confirmed that the Plan meets the basic conditions set out in paragraph 8(2) of Schedule 4B to the Town and Country Planning Act 1990 and complies with sections 38A and 38B of the Planning and Compulsory Purchase Act 2004. The Council accepted the Examiner's recommended modifications and introduced one further modification to ensure full compliance with the basic conditions. This additional modification was subject to a six-week consultation period, during which no substantive objections were received. As a result, the Council resolved that the Gerrards Cross Neighbourhood Plan, as modified, should proceed to referendum.

4.4. Other Relevant Guidance

Ministry of Housing, Communities and Local Government Pre-Application Guidance

4.4.1. The Ministry of Housing, Communities and Local Government (MHCLG) has published guidance on the pre-application process for NSIPs[35]. This guidance sets out the requirements and expectations for the preparation of a Development Consent Order. It includes advice on how EIA should be considered as part of the application, including on the EIA scoping process and the receipt of a Scoping Opinion.

Planning Inspectorate Advice Notes

4.4.2. The Planning Inspectorate (PINS) has published a series of advice notes that are intended to inform applicants, consultees, the public and others about a range of process matters in relation to the PA 2008.

4.4.3. The key PINS Advice Notes of relevance to the Project include:

a. Advice Note 7: Environmental Impact Assessment: Process, Preliminary Environmental Information, and Environmental Statements[36] (of which Section 5 specifically relates to the scoping process);

   i. This Advice Note provides guidance on the EIA process for NSIPs, including a summary of the EIA process, EIA Screening and EIA Scoping. This includes a list of information to be provided to support the scoping out of technical topics (see paragraph 5.11 of Advice Note 7);

   ii. It also provides guidance on the consultation process for NSIPs, including the role of Preliminary Environmental Information (PEI); and

   iii. It offers advice on the preparation of Environmental Statements (ESs) for NSIPs, providing details on what constitutes a good ES;

b. Advice Note 9: Rochdale Envelope[37];

   i. This Advice Note offers guidance on how the Rochdale Envelope assessment approach may be applied in the context of the PA 2008. The Rochdale Envelope is an approach to assessing a proposed development within the EIA where uncertainty around the proposals exist, and necessary flexibility is sought;

   ii. It provides a summary of the case law, and provides guidance on how the Rochdale Envelope can be applied and assessed within the EIA for a DCO application; and

[35] *MHCLG, 2024, Guidance – Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects, https://www.gov.uk/guidance/planning-act-2008-pre-application-stage-for-nationally-significant-infrastructure-projects*

[36] *The Planning Inspectorate Advice Note Seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping (2017). Available from: https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an. Accessed: 13 November 2025.*

[37] *The Planning Inspectorate Advice Note Nine: Rochdale Envelope (2018). Available from: https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope. Accessed: 13 November 2025.*

iii. It also offers guidance on consultation and publicity at the pre-application stage to ensure that statutory consultation requirements have been complied with throughout the EIA process;

c. Advice Note 17: Cumulative Effects Assessment[38];

i. This Advice Note provides advice on the approach to cumulative effects assessment within the EIA for DCO projects, including offering guidance on interrelationships between effects, as well as combined effects; and

ii. It suggests a 4 stage process to the cumulative effects assessment, and offers detailed guidance for each stage. Further information on how this guidance has been addressed in this Scoping Report is provided in *Section 5.13* of this Scoping Report.

4.4.4. In addition to any relevant planning policies that inform the scope, methodology or assessment of effects, as relevant, the technical topic chapters of the ES will present a summary of any pertinent recognised industry guidance documents.

[38] *The Planning Inspectorate Advice Note Seventeen: Cumulative Effects Assessment (2019). Available from: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment. Accessed: 13 November 2025.*

5. APPROACH TO THE EIA

5.1. EIA Guidance

5.1.1. In addition to the EIA Regulations, there is also guidance available that has been referenced where appropriate, including but not limited to:

a. In February 2020, the Withdrawal Agreement[39] came into force that established the terms of the United Kingdom's orderly withdrawal from the European Union (EU). The EIA Directive is 'retained UK law' and reference has still been made to the European Commission's (EC's) various EIA guidance documents as these currently remain in line with the UK's EIA Regulations, and therefore provide helpful guidance[40];

b. At a domestic level, reference has been made to the Department for Levelling Up, Housing and Communities overarching Planning Practice Guidance (PPG)[41];

c. PINS Advice Notes, including Advice Note 7, Advice Note 9, and Advice Note 17;

d. In relation to publications from professional bodies, reference has been made to Institute of Environmental Management and Assessment (IEMA)[42] publications as these include best practice / suggested improvements to the EIA process. This includes:

   i. IEMA 'ES Review Criteria' (COM3-6)[43];
   ii. IEMA 'Guidelines for Environmental Impact Assessment' (2004)[44];
   iii. IEMA 'Special Report into the State Environmental Impact Assessment Practice in the UK' (2011)[45];
   iv. IEMA 'Shaping Quality Development' (2015)[46];
   v. IEMA 'Delivering Quality Development' (2016)[47];
   vi. IEMA 'Delivering Proportionate EIA' (2017)[48];
   vii. IEMA 'Materials and Waste in EIA' (2020)[49];
   viii. IEMA 'Climate Change Resilience and Adaption' (2020)[50];
   ix. IEMA 'Major Accidents and Disasters in EIA: A Primer' (2020)[51];
   x. IEMA 'Principles of Cultural Heritage Impact Assessment in the UK' (2021)[52];
   xi. IEMA 'Guide to Effective Scoping of Human Health' (2022)[53];
   xii. IEMA 'A New Perspective on Land and Soil in Environmental Impact Assessment' (2022)[54];

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[39] European Commission (2019); The EU-UK Withdrawal Agreement. Available at: https://ec.europa.eu/info/strategy/relations-non-eu-countries/relations-united-kingdom/eu-uk-withdrawal-agreement_en. Accessed: 13 November 2025.
[40] European Commission (n.d.); Environmental Impact Assessment. Available at: http://ec.europa.eu/environment/eia/eia-support.htm. Accessed: 13 November 2025.
[41] Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government (2023); Environmental Impact Assessment. Available at: http://www.gov.uk/guidance/environmental-impact-assessment. Accessed: 13 November 2025.
[42] IEMA has recently been rebranded under the new title of 'The Institute of Sustainability & Environmental Professionals' ('ISEP'). Guidance which was previously issued under the brand of IEMA remains referenced as so throughout this Scoping Report.
[43] IEMA, undated; EIA Quality Mark – ES Review Criteria COM 3-6.
[44] IEMA, (2004); Guidelines for Environmental Impact Assessment.
[45] IEMA, (2011); The State of Environmental Impact Assessment Practice in the UK.
[46] IEMA, (2015); Shaping Quality Development.
[47] IEMA, (2016); Delivering Quality Development.
[48] IEMA, (2017); Delivering Proportionate EIA.
[49] IEMA, (2020); Materials and Waste in EIA.
[50] IEMA, (2020); Climate Change Resilience and Adaption'
[51] IEMA, (2020); Major Accidents and Disasters Guidelines
[52] IEMA, (2021); Principles of Cultural Heritage Impact Assessment in the UK
[53] IEMA, (2022); Guide to Effective Scoping of Human Health
[54] IEMA, (2022); A New Perspective on Land and Soil in Environmental Impact Assessment

xiii. IEMA 'Assessing Greenhouse Gas Emissions and Evaluating their Significance' (2022)[55];

xiv. IEMA 'Environmental Assessment of Traffic and Movement' (2023)[56];

xv. IEMA 'Effective Non-Technical Summaries for Environmental Impact Assessment' (2023)[57];

xvi. IEMA 'Implementing the Mitigation Hierarchy from Concept to Construction' (2024)[58];

e. Applicable case law; and

f. Topic specific guidance and assessment criteria, where appropriate.

5.1.2. In accordance with the EIA Regulations and best practice guidance documents (including PINS Advice Note 7), the EIA will comprise an assessment for each of the relevant technical topics against an appropriate baseline condition of the Site and surrounding area, using methods of prediction including established standards and industry guidelines and techniques confirmed as part of the EIA Scoping process. In all cases, the source data and guidance used to establish the baseline conditions and assessment methodology will be clearly set out within the ES.

5.2. Parameters-Based Approach

5.2.1. The DCO application being prepared by the Applicant will have flexibility embedded within it through the adoption of a parameters-based approach. This flexibility is likely to be sought in relation to various components and characteristics of the Proposed Development including its layout, the choice of technology, the size and massing of buildings, and also landscaping.

5.2.2. The Applicant is adopting this approach primarily to enable the detail of the design to be developed in parallel to the consenting process. It may also be that there are relevant industry and technological developments over the coming years which the Applicant will be in a position to react to, and cater for, when implementing the DCO (if granted).

5.2.3. The Applicant will take account of relevant case law and guidance in preparing the DCO application which is parameters-based. In particular, in EIA terms, the 'Rochdale envelope' and PINS' Advice Note 9 will be considered. When producing the environmental statement, a reasonable worst-case scenario will be assessed for each of the relevant technical assessments to account for the flexibility in the DCO application.

5.2.4. The intention is for there to be suitable controls provided for within the DCO. The Applicant is proposing to submit a parameter plan(s) with the DCO application which will operate in tandem with an appropriate mechanism within the DCO to ensure that the Proposed Development, as implemented, is within the relevant parameters.

5.3. EIA Process

5.3.1. An outline of the general EIA process is set out in Diagram 1 below.

[55] *IEMA, (2022); Assessing Greenhouse Gas Emissions and Evaluating their Significance*
[56] *IEMA, (2023); 'Environmental Assessment of Traffic and Movement'*
[57] *IEMA, (2023); Effective Non-Technical Summaries for Environmental Impact Assessment.*
[58] *Institute of Environmental Management and Assessment, 2024; Implementing the Mitigation Hierarchy from Concept to Construction. These guidelines now supersede both IEMA 'Shaping Quality Development' (2015) and IEMA 'Delivering Quality Development' (2016).*

Diagram 1 EIA Process

5.4. Baseline Conditions

5.4.1. Baseline assessments will utilise any existing and available information, as well as new information either collected through baseline surveys undertaken during the course of the EIA process or additional information provided as part of the EIA Scoping Opinion and consultation process. This information will be used to present an up-to-date description of the current baseline conditions of the Site and surrounding area within the ES (within the individual technical chapters).

5.4.2. Study areas for each individual assessment are identified (as relevant). These study areas can be based on policy, guidance, an understanding of the Site and surrounds, and best practice / professional judgement. Where identified, the study areas are set out in each of the technical topic sections of this EIA Scoping Report.

5.4.3. In addition, as per the requirements of the EIA Regulations, consideration as to how the current baseline conditions may evolve in the future in the absence of the Proposed Development will also be presented in the ES (within the individual technical chapters). This likely evolution of the baseline conditions (the 'future baseline') will be quantified where possible and where not possible, a qualitative review will be presented.

5.5. Sensitive Receptors

5.5.1. When undertaking an EIA, it is important to identify potential environmental receptors which may be impacted by the Proposed Development and may need to be considered as part of the assessment.

5.5.2. The environmental receptors that may be sensitive to change are identified and discussed within the scope of each technical topic in this EIA Scoping Report (hereafter referred to as 'sensitive receptors').

The sensitive receptors outlined within this EIA Scoping Report (see *Sections 6 and 7*) have been identified at the time of writing this EIA Scoping Report, as part of the EIA scoping process; however, these will be reviewed during preparation of the ES and therefore may be subject to change.

5.6. Enabling and Construction Impact Assessments

5.6.1. The ES (within a non-technical chapter titled 'Enabling and Construction') will provide an outline of the anticipated enabling and construction programme and related activities and aspects (i.e. enabling works, substructure works, superstructure works etc., construction material quantities, Heavy Goods Vehicle (HGV) movements and HGV routing). Reasonable worst-case assumptions will be made where detailed information on the enabling and construction works is not available.

5.6.2. In addition, key environmental controls and management measures relevant to the Proposed Development (including relevant codes of construction practice) will be presented in the ES chapter. It is currently envisaged that the Proposed Development will be delivered in a number of construction phases. Any assumptions made regarding indicative construction phasing for the purposes of assessment will be clearly set out and assessed as appropriate within the ES. If necessary, early occupation coinciding with continued construction of later phases will be assessed within the ES, as required.

5.6.3. This information will inform the enabling and construction impact assessments. Throughout the enabling and construction of the Proposed Development, the assumption will be made that the standard environmental controls required under relevant legislation and best practice guidance are met as a matter of course.

5.6.4. The assessment of the potential for likely significant effects arising during the enabling and construction works will be addressed within each of the individual technical assessment chapters of the ES and will be assessed against the existing Baseline Conditions. The assessment will take into consideration any other surrounding development schemes which are likely to be under construction at the same time as the Proposed Development (further discussion on the relevant cumulative schemes identified for consideration is in the '*Cumulative Effects Assessment*' in *Section 5.13* of this EIA Scoping Report). The enabling and construction assessments presented within the technical chapters of the ES will identify the need for any additional or bespoke environmental management or mitigation measures in order to avoid, prevent, reduce or off-set any significant adverse effects identified. In addition, where appropriate, the enabling and construction assessments will consider the phasing of works and the subsequent potential for impacts to occur upon introduced receptors to the Site – e.g., enabling and construction effects associated with later phases of development upon early occupiers on-site. The approach to this will be clearly set out within the ES.

5.6.5. The ES will present enabling and construction related effects both without mitigation measures included (unless embedded mitigation measures have been identified) and with mitigation measures applied. The latter effects constitute the 'residual effects' identified as part of the assessment.

5.6.6. Where required, a description of any proposed monitoring arrangements will also be presented and would define (where appropriate) the procedures regarding the monitoring of the relevant significant adverse effects, the types of parameters to be monitored and the monitoring duration.

5.6.7. All the measures proposed within the technical chapters or detailed within this EIA Scoping Report will be compiled and presented in a mitigation and monitoring schedule (to be presented as a separate chapter within **Volume 1, Chapter 16: Environmental Management, Mitigation and Monitoring Schedule** of the ES).

5.6.8. It is anticipated that any required enabling and construction related environmental management/ mitigation and monitoring measures would be secured and controlled through an appropriate Construction Environmental Management Plan (CEMP) (or equivalent) and it is proposed that the requirement for these documents be secured by means of suitably worded requirements to be attached to the DCO (if granted). Key mitigation and management controls that would later form part of a CEMP

will be presented in the ES to help define the policies, procedures and management framework for the implementation of any identified specific environmental management and mitigation controls and monitoring. A Framework CEMP will be included as part of the application submission documents.

5.7. Completed and Operational Impact Assessments

5.7.1. The ES will present a description of the Proposed Development in order to provide suitable context to enable the assessment of potential and likely significant environmental effects. Sufficient information on the Proposed Development, in terms of the key aspects, will be presented to allow an understanding of the development being proposed, in order to enable the assessment of potential and likely significant environmental effects of the completed and operational development. Any assumptions made will be clearly presented in the narrative. The assessment of the likely environmental and socio-economic effects within the ES will be based on the available plans and details for the Proposed Development.

5.7.2. Although the delivery of the Proposed Development will be phased (refer to paragraph 5.5.2), it is considered that the reasonable 'worst-case' effects will be associated with the fully completed and operational development.

5.7.3. An ES chapter titled **ES Volume 1, Chapter 4: The Proposed Development** will present information on the plans and details sought for Consent through the DCO.

5.8. Assessment Scenarios

5.8.1. The main assessment scenarios to be assessed within the EIA are:

a. **Baseline Conditions (2025 or relevant alternative year[59];)** – Reflecting the existing baseline conditions on the Site and within the surrounding area;

b. **Enabling and Construction** – An assessment of the potential enabling and construction effects associated with the Proposed Development against baseline conditions;

c. **Fully Complete and Operational** – An assessment of the potential effects when the Proposed Development is complete and operational against baseline or future baseline conditions (see *Section 5.9* below for further detail)[60];

d. **Fully Complete and Operational (with Decarbonisation)** – An assessment of the potential effects of the complete and operational Proposed Development against baseline or future baseline conditions, including the decarbonisation technology (see *Section 5.9* below for further detail); and

e. **Cumulative** – An assessment of the potential cumulative effects of the Proposed Development with other surrounding existing or approved schemes both during construction and once the Proposed Development is complete and operational. Refer to the *'Cumulative Effects Assessment'* section (see *section 5.13*) for further details.

5.8.2. In addition to the above, a number of the technical assessments will also consider the potential for future connectivity to the grid for both the Data Centre Campus and Energy Centre.

5.9. Consideration of Development Options

5.9.1. It has been confirmed by UKPN that the National Grid does not have current capacity to power the proposed Data Centre Campus element of the Proposed Development. As discussed in *Section 3.4* of this Scoping Report, upgrades to the existing substations to increase capacity of the Grid so that it is sufficient to power the Data Centre Campus are not expected to come online until at least 2030,

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[59] For some assessments, such as air quality and noise and vibration, when assessing the effects of the operation of the Proposed Development, these will include a projected environmental condition in the future (i.e., 'future baseline'), at the year of opening of the Proposed Development (if relevant a different future year appropriate/specific for the technical assessment may be used).

[60] Noting the first phase of the Proposed Development will involve the completion (and subsequent operation) of the first Data Centre alongside the Energy Centre, this is not considered to result in any worse environmental effects than that of the fully completed and operational Proposed Development and is therefore not included as an additional assessment scenario.

although the exact timing of when this will occur is currently uncertain. A grid connection will also need to be secured, which can also be an uncertain process. As such, the timing of when sufficient power via the Grid to serve the Data Centre Campus will become available is unknown. This introduces a source of uncertainty into the EIA in terms of when this future power from the Grid will be available to power the data centres, and therefore how this should be considered for various technical topics where this could have potential for significant or different environmental effects, and what timeframe for the establishment of connection to the Grid will constitute a worst-case scenario.

5.9.2. The following sections set out the potential variations and options in respect of the operation of the Proposed Development, and how these will be considered (where applicable) in the EIA.

5.9.3. In addition to the consideration of the timing of a grid connection discussed above, there are also development options associated with the excavated materials as set out in *Section 3.16* of this EIA Scoping Report. Based on the site investigations undertaken to date, it is likely that a portion of the area to be excavated includes previously landfilled waste and therefore will need to be correctly managed. *Paragraph 5.9.12* sets out the potential options for the management of this excavated material and how these will be considered (where applicable) in the EIA.

National Grid Connection

5.9.4. The future function of the Energy Centre, if and when power for the Data Centre Campus becomes available and is secured from the National Grid, is uncertain at the time of the preparation of this Scoping Report. It is assumed that, if and when a connection of the Data Centre Campus to the Grid becomes available and is implemented (i.e. to enable the remaining data centre(s) to come online), the Energy Centre will also be connected to the Grid to become a 'peaking plant'. This means that it provides power to the Grid in times of peak demand. It will only generate electricity when demand on the Grid is in excess of usual operating capacity, and therefore will not run continuously. The timing of the connection of the proposed Data Centre Campus to the Grid is currently unknown. An assumption on the latest year at which grid connections are likely to be available (and implemented) will be set out in the ES, which represents a worst case scenario in terms of total lifecycle emissions.

5.9.5. The Energy Centre operating as a peaking plant could operate on Open-Cycle Gas Turbines (OCGTs), and / or Closed-Cycle Gas Turbines (CCGT) and/or reciprocating engines. CCGTs operate more efficiently (using less gas than OCGTs to produce the same electrical output), and therefore generate relatively less greenhouse gas emissions, than OCGTs, as CCGTs recirculate the gas used within the turbines, whilst OCGTs use air drawn in from the atmosphere, which is exhausted once used. Reciprocating engines are somewhere in between these two other alternative technologies, in terms of greenhouse gas emissions.

5.9.6. As the Grid moves towards Clean Power 2030 (CP2030)[61], and an increasing proportion of renewable capacity powers the Grid, the main demand for the Energy Centre as a peaking plant will be driven primarily by periods of low renewables output and high grid demand. A set of scenarios will therefore be developed to account for standard peaks in demand on the Grid, extreme weather events and emergency scenarios, in order to capture the events in which the Energy Centre acting as a peaking plant would provide power to the Grid. The Air Quality, Climate Change and Greenhouse Gases and Noise and Vibration assessments will determine the highest emissions-generating scenario through a set of assumptions and sensitivity tests in relation to operating hours and technology to be used (OCGT and/ or CCGT).

5.9.7. The worst-case scenarios vary topic to topic based on the receptors assessed and their sensitivity to the above scenarios, and therefore the Air Quality, Climate Change and Greenhouse Gases and Noise and Vibration assessments will assess the Energy Centre operating as a peaking plant in line with the

[61] *CP30 is a UK government policy which sets out the goal to have the UK's electricity supplied by clean power by 2030, with gas only used as essential backup, in support of the legally binding national commitment of Net Zero by 2050. Accessible at: https://www.gov.uk/government/publications/clean-power-2030-action-plan. See Section 4.2 of this EIA Scoping Report for further information on CP2030.*

scenarios set out above, in order to determine which plausible variation of these scenarios constitutes a reasonable worst-case. Details of these scenarios and how they have been assessed will be provided within an appendix to the ES for each of the above technical topics (**ES Volume 3**), whilst the assessment presented in the associated ES chapters will be based on the worst-case scenario.

5.9.8. All other environmental topics addressed within *Sections 6* and *7* of this EIA Scoping Report do not need to consider the above scenarios, as the receptors assessed within these topics are not sensitive to these scenarios, and therefore these scenarios will not result in significant effects for these technical topics.

Climate Change and Greenhouse Gases Conservative Worst-Case Assessment

5.9.9. The Climate Change and Greenhouse Gases assessment will assess the combined effect of the greenhouse gas emissions associated with the energy supplied from the Grid to the Data Centre Campus, in combination with the emissions associated with the energy supplied to the Grid from the Energy Centre.

5.9.10. Although in reality the emissions associated with the generation of energy from the Grid are already considered in the baseline greenhouse gas emissions and not additionally generated as a result of the Proposed Development (i.e. the Grid electricity would be generated regardless of whether or not the Data Centre Campus was to come forward), and furthermore it is difficult to predict the exact sources of energy feeding into the Grid[62], this additional worst-case assessment will be provided to capture an ultimate worst-case scenario in terms of the greenhouse gas emissions associated with the Proposed Development. It is, however, noted that this approach may represent a form of 'double-counting' of emissions (albeit the Grid is expected to be largely supplied by renewables at this stage). Nonetheless, the Applicant considers that it is prudent to approach the assessment on a precautionary basis in view of recent case law. As part of the assessment in the ES, the Applicant will analyse the position in detail, to include identifying precisely what it considers to be emissions which are *caused* by the Proposed Development.

Excavated Material

5.9.11. As set out above, to facilitate the construction of the Proposed Development, excavation of the ground level within the Main Development Area will be required, some of which will be within areas of historic landfill. The quantity and composition of any materials, including landfill waste, that is due to be excavated is subject to further ongoing site investigations and design considerations, as is the method for disposing of any material categorised as waste.

5.9.12. Where excavated material is categorised as waste, the following options will be considered within the EIA:

a. Disposal to an appropriate off-site facility: In this scenario, additional HGV traffic flows during the enabling and construction period would be associated with the removal of waste from the site to this facility. Should the excavated material comprise hazardous waste, this would need to be treated and disposed of at any off-site facility capable of handling hazardous waste; and / or

b. Disposal within the closed modern landfill cells with remaining capacity located within the Wider Ownership Area: Should on-site disposal be undertaken, this would be undertaken in accordance with Environmental Permit (ref: EPR/XP3636KW), which may require a variation, although this is currently subject to review as to whether this permit variation would be required).

5.9.13. The worst-case scenarios vary by topic based on the receptors being assessed and their sensitivity to the above scenarios. Therefore, the Air Quality, Ecology, Noise and Vibration, Climate Change and Greenhouse Gases, Major Accidents and Disasters, Landscape and Visual Impact, and Ground

[62] *Government projections for overall grid carbon intensity will be used to inform this assessment.*

Conditions and Land Contamination assessments will consider the scenarios set out above as relevant, in order to determine which plausible variation of these scenarios constitutes a reasonable worst-case. Should it be determined which of the above options is to be taken forward for the Proposed Development, at the time that the scheme is fixed for assessment work for the ES, it will not be necessary to consider both of the above options, and only the option confirmed as being taken forward will be assessed. The approach taken will be set out within the ES.

5.9.14. All other environmental topics addressed within *Sections 6* and *7* of this EIA Scoping Report do not need to consider the above scenarios, as the receptors assessed within these topics are not sensitive to these scenarios, and therefore these scenarios will not result in significant effects for these technical topics.

5.10. Decarbonisation Readiness and Decommissioning

5.10.1. In addition to the above, both the timing of decarbonisation readiness of the Energy Centre (i.e. when the technology to convert the natural gas supply to the Energy Centre into hydrogen comes online) and when the Energy Centre will be decommissioned is not known at this stage in the design process. The section below details these two future scenarios further.

Decarbonisation Readiness

5.10.2. The approach to considering decarbonisation readiness for each technical topic is set out within *Sections 6* and *7* of this Scoping Report under *Decarbonisation Readiness*. A source of uncertainty for these assessments is the timing over when decarbonisation readiness (i.e. hydrogen conversion of the natural gas supply to the Energy Centre) will be available. To capture a worst-case scenario, the Air Quality, Climate Change and Greenhouse Gases, and Noise and Vibration technical assessments will determine at what point in the future the switch to the conversion to hydrogen (for the purpose of decarbonisation readiness) will constitute a worst-case scenario, through clearly stated assumptions, or sensitivity tests, as necessary.

5.10.3. In line with UK Government Net Zero Policy, which aims for the UK to be Net Zero by 2050, the latest date by which hydrogen conversion could be available for the Proposed Development is 31 December 2049, as decarbonisation readiness is required by 2050, in order for the Proposed Development to be compliant with UK Net Zero Policy. Therefore, although the exact timing of decarbonisation readiness is unknown at the time of writing, the latest year in which this could be possible, in accordance with current UK policy, is 2049. Therefore, worst case assumptions will be made as appropriate for the relevant assessments, i.e. the earliest possible year as a worst case for air quality, and the latest possible year as a worst case for climate changes.

Decommissioning

5.10.4. For the purposes of assessing impacts related to decommissioning, details are not known at this time however it is noted that this will be controlled through a Decommissioning Environmental Management Plan (DEMP) for the Energy Centre (which will include environmental management controls and monitoring) and that otherwise the types of impacts and required mitigation measures for this stage will be similar to that for the construction phase. As set out in *Section 3.19* of this Scoping Report, the operational lifespan of the Energy Centre and Data Centre Campus is anticipated to be approximately 20-25 years (although this lifespan is subject to the chosen technologies included in the final design) and 60 years, respectively. At this point, the Energy Centre could be upgraded and its operation prolonged. Prior to the decommissioning of the Energy Centre, the Data Centre Campus will have a connection to the grid for power.

5.10.5. In the event that decarbonisation readiness is not delivered by 2050, in compliance with current policy for the UK reaching Net Zero by 2050, the Energy Centre would have to be decommissioned. This is according to current policy at the time of writing, but may be subject to change dependent on future legislative and / or policy changes.

5.10.6. On the basis that the decommissioning of the Energy Centre and Data Centre Campus will occur separately in temporal terms, and that the decommissioning works themselves will be quicker than the construction works, the potential effects from the decommissioning are considered to be no worse than those for the enabling and construction phase. Therefore an assessment of the decommissioning stage is scoped out of the EIA. The exception to this is in relation to the Climate Change assessment, whereby consideration is given to greenhouse gas emissions that could arise during decommissioning works.

5.11. Alternatives and Design Evolution

5.11.1. The EIA Regulations (Schedule 4) require that the ES provides 'a description of the reasonable alternatives […] relevant to the proposed project and its specific characteristics' which have been considered by the Applicant and 'an indication of the main reasons for selecting the chosen option, including comparison of environmental effects'.

5.11.2. The ES will summarise the evolution of the Proposed Development, the alternatives considered (where relevant), and key modifications made during the design process. Environmental considerations which have influenced this process will be discussed, and a qualitative comparison will be undertaken of the different design options and their relevant environmental effects. Matters that will be considered in terms of design evolution include land uses, layout, landscaping, embedded mitigation and technology. The preferred design alternative, culminating in the Proposed Development being sought for approval, will be discussed.

5.11.3. A specific chapter, **ES Volume 1, Chapter 3: Alternatives and Design Evolution**, will focus on the consideration of the main alternatives (as relevant) and the design evolution. The focus will be on main alternatives considered (as relevant), the evolution of the design, and how environmental considerations influenced the evolution of the scheme. The summary of the design evolution will also consider initial environmental analysis undertaken on the evolving scheme.

5.12. Environmental Mitigation, Monitoring and Management Measures

5.12.1. Throughout the EIA (including this EIA Scoping Report and the ES), where applicable, the way that likely environmental effects have been or will be avoided, prevented, reduced or offset through design and/ or management measures will be described. These are measures that are inherent in the design and construction of the Proposed Development (also known as 'embedded measures'). Where known at this stage, some of these embedded measures have been identified at the EIA Scoping stage and are described, where relevant, in the technical topic appendices.

5.12.2. Embedded measures relevant to the construction phase will be summarised within **ES Volume 1, Chapter 16: Environmental Management, Mitigation and Monitoring Schedule**. These measures are to be included within a CEMP, the requirement for which is proposed to be secured via an appropriate DCO requirement.

5.12.3. Once completed and operational, such embedded measures will be integral to the Proposed Development. A number of technical studies are being undertaken to inform the evolving design and to allow early identification of mitigation measures so that these can be incorporated into the design of the Proposed Development, and any associated design Control Documents. The ongoing environmental testing includes the following:

a. Atmospheric dispersion modelling of the plant stacks to establish an acceptable height in relation to levels of pollution at the ground, and the requirement for the incorporation of any mitigation to reduce emissions;

b. Acoustics modelling of the plant to inform the layout and the requirement for any mitigation to reduce noise levels at the closest sensitive receptors to acceptable levels;

c. Visual analysis of the appearance of the evolving design to inform the landscaping design, to reduce the potential for adverse effects on views and the landscape;

d. Ground conditions – ongoing site investigations to understand soil characteristics and contamination levels across the Site, and hazard identification to inform the layout of the Proposed Development;

e. Ecology surveys to identify habitats that should be retained and/or replaced, in addition to establishing where biodiversity enhancements (including biodiversity net gain) can be achieved;

f. Heritage assessment to inform layout of the Proposed Development to minimize the potential effects to the setting of the Schedule Monument; and

g. Transport studies including design of the access arrangements.

5.12.4. Embedded measures are therefore either incorporated into the design from the outset or identified through the assessment process. Proposed environmental enhancements will also be described, where applicable. The design evolution and development of the Proposed Development has been, and will continue to be, informed by a range of environmental specialists to ensure that constraints and opportunities have been properly identified, understood and, where required, measures incorporated into design for the Proposed Development.

5.12.5. Embedded measures will be considered prior to the assessment of effects to avoid considering assessment scenarios that are unrealistic in practice, i.e. do not take account of such measures even though measures are likely to be standard practice and / or form part of the proposed design. These will then be followed through the assessment to ensure that realistic likely environmental effects are identified. Where likely significant adverse effects are identified after considering these embedded measures, 'further mitigation measures' will be proposed.

5.12.6. All embedded mitigation and enhancement measures will be described within the Proposed Development chapter of the ES, with the rationale for the inclusion of the identified embedded measures and the associated commitment to implementing such measures clearly stated. Other required mitigation measures and any monitoring requirements will be summarised within **ES Volume 1, Chapter 16: Environmental Management, Mitigation and Monitoring Schedule**.

5.12.7. In accordance with the Government's NSIP guidance[63], a Commitments Register will be produced and submitted with the DCO application. This Register will set out the environmental mitigation and commitments identified throughout the pre-application stage, and will include best practice measures and good environmental design principles, Site specific mitigation identified through the early environmental testing, the EIA Scoping stage, the PEIR process and the EIA / ES itself.

5.12.8. Residual effects will be concluded following the consideration of mitigation.

5.13. Cumulative Effects Assessment

5.13.1. In accordance with the EIA Regulations, consideration will also be given to the potential for cumulative effects to arise. Cumulative effects are those that occur over time and space from a number of development activities. The impact of the Proposed Development will be considered in conjunction with the potential impacts from other projects or activities which are both reasonably foreseeable in terms of delivery and are located within a relevant geographical scope where environmental impacts could act together to create a more significant overall effect.

5.13.2. The Planning Inspectorate's Advice Note on Cumulative Effects[64] sets out guidance on identifying and assessing cumulative schemes for NSIP under the PA 2008. This guidance has informed the approach taken to identify cumulative schemes for assessment within the ES, and the approach is detailed below.

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[63] *Planning Inspectorate, 2025, Guidance Nationally Significant Infrastructure Projects: Commitments Register, https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-commitments-register, accessed 8 January 2026*

[64] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available from: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment. Accessed: 13 November 2025.*

5.13.3. The above guidance suggests four stages to cumulative effects assessment (CEA), as follows:

a. **Stage 1** – Establishing the Long List;

b. **Stage 2** – Establishing the Short List;

c. **Stage 3** – Information Gathering; and

d. **Stage 4** – Assessment.

5.13.4. According to the Planning Inspectorate's Advice Note on Cumulative Effects, the CEA should be iterative, and the above stages may need to be repeated several times during the preparation of the ES.

5.13.5. Prior to the four stages of the CEA outlined above being undertaken, a zone of influence (ZOI) must be established, which is the spatial extent to which the NSIP could have cumulative effects with other existing and, or approved developments in the surrounding area.

5.13.6. NSIPs often have a broad spatial and temporal zone of influence (ZOI) for potential cumulative effects, given their large scale and the potential for significant environmental effects as a result of the nature of NSIPs, and therefore the potential to interact with other existing and, or approved schemes in a cumulative manner.

5.13.7. To establish which other schemes should be included within the cumulative assessment, the ZOI (which for the most part relates to the 'study area' defined for each technical assessment) for each environmental topic considered within the ES will be defined and documented within each of the technical chapters of the ES. The ZOI is likely to vary between technical topics scoped into the EIA.

5.13.8. Table 5 below summarises the steps recommended within Planning Inspectorate's Advice Note on Cumulative Effects, and sets out the approach to cumulative effects assessment that will be undertaken within each of the technical assessments of the ES, where relevant.

5.13.9. In addition to the above, consideration will be given to potential future off-site connectivity route options and infrastructure to connect to a future water supply, where appropriate within the PEIR and ES. Given the anticipated nature of the works associated with the delivery of such a connectivity (i.e. laying of below ground cabling within a dug out trench), any potential cumulative effects with the Proposed Development will be limited and very short term only when the works are approaching and entering into the Site, with the potential for very temporary disruption to the local road network.

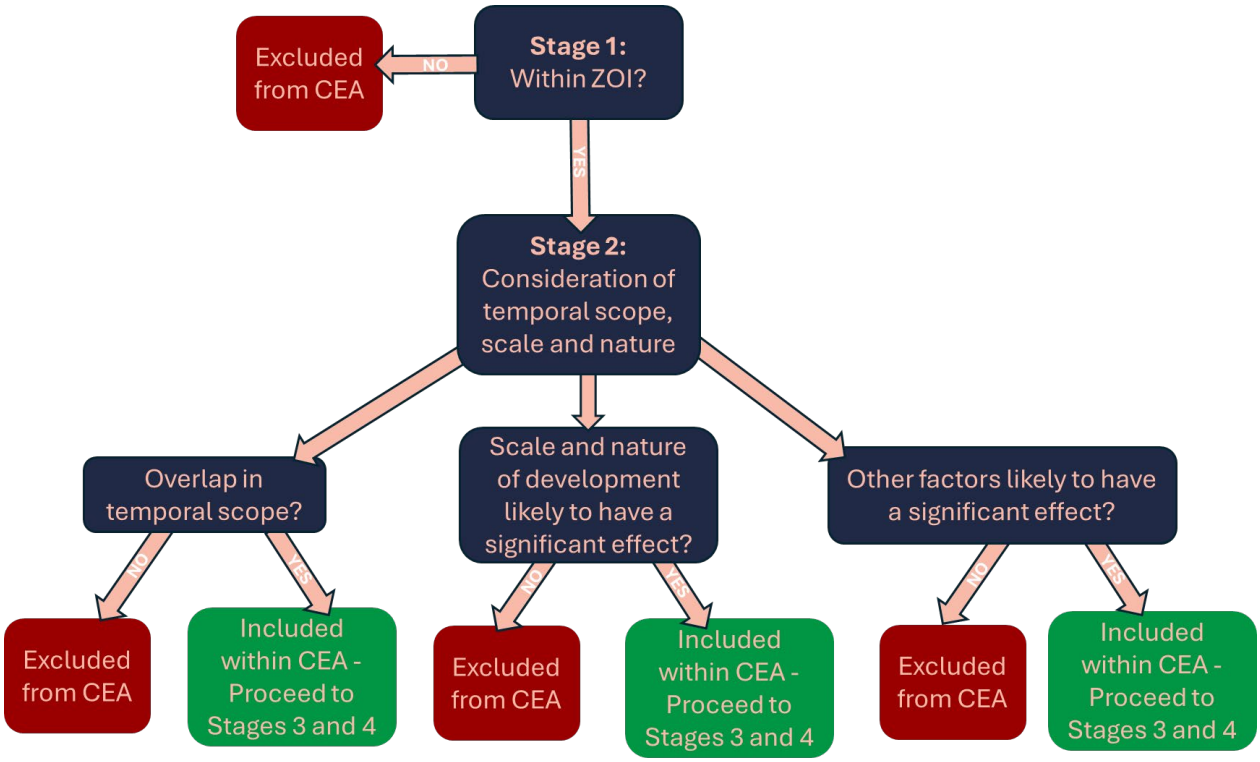
Table 5 The Four Stages to Cumulative Effects Assessment[65]

1: Establishing the Long List	Once the ZOI has been established and clearly justified, a desk study will be undertaken to identify the long list of other existing and, or approved development that could be considered within the established ZOI for each environmental topic within the ES. When identifying such developments, the search will not be restricted to schemes of the same type as the Proposed Development, i.e. this should not be restricted to searching for energy centres only. Any assumptions or limitations in the collated data when considering whether a scheme reaches the threshold for inclusion will be clearly stated. Establishing the long list will follow the tiered approach to consideration of relevant schemes: a. **Tier 1**: Other existing and / or approved development; i. Under construction; ii. Permitted applications under the Planning Act or other regimes but not yet implemented; iii. Submitted applications under the Planning Act or other regimes but not yet determined; and iv. All refusals subject to appeal procedures not yet determined; **Tier 2**: Other existing and / or approved development: i. Projects on the Planning Inspectorate's programme of projects; and **Tier 3**: Other existing and / or approved development: i. Projects on the Planning Inspectorate's programme of projects where a scoping report has not been submitted; ii. Identified in the relevant Development Plan and emerging Development Plans, with appropriate weight given as they near adoption, recognising that there will be limited information available on the relevant proposals; and iii. Identified in other plans and programmes, as appropriate, which set the framework for future development consents or approvals, where such development is reasonably likely to come forward. Where other existing and, or approved developments are expected to be completed before construction of the Proposed Development and the effects are fully determined, effects arising from these developments would be considered as part of the baseline and may be considered as part of both the construction and operational assessment. However, if the effects of other existing and, or approved development under construction are not yet fully determined, it may be appropriate to consider these in the CEA. The ES will distinguish between projects form part of the baseline and those included within the CEA.
2: Establishing the Short List	Once the long list has been established, threshold criteria will be applied to develop a short list, which will reduce the number of schemes for inclusion in the CEA to ensure that the assessment is proportionate. The criteria used to develop the short list for inclusion within the CEA will be in line with those set out in the below bullet points; temporal scope, scale and nature of development and the nature and / or capacity of the receiving environment. Where criteria differ, or schemes outside of these criteria are included for individual technical topics, this will be set out within the relevant technical ES chapter. Consideration of effects that are deemed individually not to be significant will be included in the assessment, as the cumulative effect of several non-significant effects could be significant. Consideration will be given to the following:

[65] *In line with Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (ibid).*

	a. **Temporal scope -** The relative construction, operation and decommissioning programmes of the other existing and, or approved developments identified in the ZOI together with the NSIP programme, to establish whether there is overlap and any potential for interaction; b. **Scale and nature of development** - Statutory definitions of major development and EIA screening thresholds may be of assistance when considering issues of scale; and c. **The nature and / or capacity of the receiving environment -** (i.e. the Site and surrounding area) which could make a significant cumulative effect with the other existing and, or approved developments more or less likely, for example the presence of contaminated land. Diagram 2 provides an overview of the shortlisting process recommended in the aforementioned Planning Inspectorate guidance. Professional judgement may be used to supplement the threshold criteria and avoid excluding other existing and, or approved development that is either below the threshold for inclusion within the CEA but with characteristics likely to give rise to a significant effect, or below the threshold for inclusion within the CEA but could give rise to a cumulative effect due to its proximity to the proposed NSIP. All the other existing and, or approved development considered will be documented and the reasons for inclusion or exclusion clearly stated. The relevant consultation bodies, including local planning authorities, will be consulted to ensure the shortlist produced is comprehensive and accurate, with clear explanation provided for the basis of inclusion or exclusion.
3: Information Gathering	This stage involves gathering information on each of the shortlisted schemes identified at Stage 2. This information will be detailed, and include (but not be limited to): a. Proposed design and location information; b. Proposed programme of construction, operation and decommissioning; and c. Environmental assessments that set out baseline data and effects arising from the other existing and, or approved development. Information on the developments scoped into the CEA will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country Planning development and the Planning Inspectorate's register for DCO developments). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3. Information gathered will be summarised and presented in an accessible format, in line with the matrix provided at Appendix 2 of the Planning Inspectorate's Advice Note on Cumulative Effects.
4: Assessment	The ES will assess the cumulative effects of the Proposed Development with the other existing and, or approved development identified in Stages 1 to 3. The CEA will: a. Be undertaken at a level of detail proportionate to the information available; b. Explain and record any limits or gaps in the information; c. Consider all tier 1 and tier 2 other existing and, or approved developments where possible; and d. Consider all tier 3 other existing and, or approved development where possible, although this may be qualitative and high level. Where baseline data about other existing and, or approved development is incomplete, a precautionary but reasonable approach will be taken based on the best available evidence, with an explanation as to how the applicant has attempted to source data.

Diagram 2 CEA Stages 1 and 2 Flowchart



5.14. Effect Interactions Assessment

5.14.1. The ES will summarise the likelihood for in-combination effects or 'effect interactions'. Effect interactions occur because of interactions between multiple individual effects associated with just one project i.e., the combination of individual effects arising as a result of the Proposed Development, for example effects in relation to noise and airborne dust on a single receptor / receptor group.

5.14.2. Effect Interactions from the Proposed Development itself on particular receptors at the Site and within the surrounds will be considered for the enabling and construction works, and also for the Proposed Development once completed and operational. Dependent on the relevant sensitive receptors, the assessment will focus either on key individual receptors or on groups considered to be most sensitive to potential effect interactions. Based on the definitions of what negligible effects comprise for each of the technical assessments, these do not warrant further consideration in relation to cumulative effects and therefore are not pulled through into the assessment of effect interactions. Only residual effects described as minor and above are therefore considered in the assessment of effect interactions.

5.14.3. There is no established methodology for assessing the impact of cumulative effects on a particular receptor. The interaction of a combination of individual effects would be determined to be either 'not significant' or 'significant', a scale of the combined effects (minor, moderate or major) would not be applied. If one of the individual effects is 'significant', the combination of effects would be regarded as 'significant'. If none of the individual effects are significant, consideration will be given as to whether or not the combination of many not significant effects could result in a combined significant effect, based on professional opinion.

5.14.4. Consideration of effect interactions will be presented within the ES in a specific chapter (i.e. **ES Volume 1, Chapter 14: Effect Interactions**).

5.15. Determining Effect Significance

Reference to 'Impact' and 'Effect'

5.15.1. It is noted that the terms 'impact' and 'effect' are distinctly different. Having gained an understanding of the likely impact it is then important to know whether the change in environmental or socio-economic

conditions results in a likely significant environmental effect. The impacts of the Proposed Development may or may not result in significant effects on the environment, depending on the sensitivity of the receptor and possible other factors (such as duration). The assessment of the likely significant effects of the development is a requirement identified by the EIA Regulations.

Receptor Sensitivity and Magnitude of Impact

5.15.2. To achieve a consistent approach across the different technical disciplines addressed within the **ES** (**Volume 1** and **Volume 2**), assessments will broadly define the sensitivity of the receptors that could be affected by the Proposed Development and the magnitude of impact or change from the baseline conditions in order to derive the resultant effect. Technical specialists will use their own approach or amend the approach stated below based on what is appropriate for their assessments (i.e. to align with relevant technical guidance).

5.15.3. Terminology to describe the sensitivity of receptors and magnitude of impact or change from the baseline conditions is broadly as follows:

a. High;
b. Medium;
c. Low; or
d. Negligible.

5.15.4. Where there is no impact / change, no assessment will be required due to there being no potential for significant effects.

5.15.5. Each of the technical assessment chapters of the **ES** (**Volume 1**) will provide further detail on the definition of each of the above terms specific to the topic in question and will also provide the criteria, including sources and justifications, for quantifying the different levels of receptor sensitivity and 'impact magnitude'. Where possible, this will be based upon quantitative and accepted criteria (for example, national standards for air quality and noise), together with the use of value judgement and expert interpretation.

Identification of a Resultant Effect

5.15.6. The basis for determining the resultant effect generally takes into account the sensitivity of the receptor and magnitude of impact or change from the baseline conditions. A generic matrix that combines the sensitivity of the receptor and the magnitude of impact to identify the resultant effect is provided within Table 6. Each technical chapter will set out their basis for determining scale of effects.

Table 6 Scale of Effect Matrix

Receptor Sensitivity	Magnitude of Impact		
	High	Medium	Low
High	**Major**	**Major**	**Moderate**
Medium	**Major**	**Moderate**	Minor
Low	**Moderate**	Minor	Negligible
Negligible	Minor	Negligible	Negligible

5.15.7. The categories and definitions of the 'scale' of the resultant effect i.e., definitions of 'Major', 'Moderate', 'Minor' and 'Negligible' effects will be adjusted to suit the technical topic in question; and, where this is the case, revised definitions of effect scale will be presented in the technical assessment chapters of the **ES** (**Volume 1**) and in **ES Volume 2**.

5.15.8. Where there is no impact to a receptor and therefore no effect, this will be stated.

Effect Nature

5.15.9. Table 7 provides definitions of the 'nature' of the resultant effect i.e., definitions of 'Adverse', 'Neutral' and 'Beneficial'. Typically, the 'nature' of an effect is defined where the 'scale of the effect' is classified as minor, moderate or major (i.e. the 'nature' is not defined for effects classified as negligible in scale).

Table 7 Definition of the Nature of the Resultant Effect

Type of Effect	Description
Adverse	Detrimental or negative effects to an environmental / socio-economic resource or receptor. The quality of the environment is diminished or harmed.
Neutral	The quality of the environment is preserved or sustained or there is an equal balance of adverse and beneficial effects.
Beneficial	Advantageous or positive effect to an environmental / socio-economic resource or receptor. The quality of the environment is enhanced.

Geographic Extent of Effect

5.15.10. The **ES** (**Volumes 1 and 2**) will identify the geographic extent of the identified effects. At a spatial level, 'site' or 'local' effects are those affecting the Site and neighbouring receptors, while effects upon receptors in the district, beyond the vicinity of the Site and its neighbours, are considered to be at a 'district / borough' level. Effects relating to the county of Buckinghamshire are considered to be at a 'regional' level. Effects relating to England are considered to be at a 'national' level.

Effect Duration

5.15.11. For the purposes of the ES, effects that are generated as a result of the enabling and construction works (i.e. those that last for this set period of time) will be classed as 'temporary'; these may be further classified as either 'short-term', 'medium-term' or 'long-term' effects depending on the duration of the enabling and construction works that generate the effect in question. Effects that result from the completed and operational phases of the Proposed Development will be classed as 'permanent' or 'long-term' effects.

Direct and Indirect Effects

5.15.12. The ES will identify whether the effect is 'direct' (i.e. resulting without any intervening factors) or 'indirect' or 'secondary' (i.e. not directly caused or resulting from something else).

Effect Significance

5.15.13. Following identification of an effect, the effect scale, nature, geographic extent and duration using the above summarised terminology, a clear statement will then be made within the ES as to whether the effect is '**significant**' or 'not significant'. As a general rule, the following applies[66]:

a. 'Moderate' or 'major' effects are deemed to be '**significant**';

b. 'Minor' effects are considered to be 'not significant', although these may be a matter of local interest; and

c. 'Negligible' effects are considered to be 'not significant' and not a matter of local concern.

5.15.14. Where mitigation measures are identified to either eliminate or reduce likely significant adverse effects, these will be incorporated into the ES, for example either through the design, or will be translated into enabling works and construction commitments; or operational or management standards / procedures.

5.15.15. The ES will then highlight the 'residual' and likely significant effects (those effects which remain following the implementation of suitable mitigation measures) and classify these in accordance with the terminology defined above.

[66] *Where this differs for a technical topic, it will be clearly stated in the individual methodology*

5.16. Consultation

5.16.1. The following section sets out the consultation process which is currently planned to be undertaken with regard to the EIA process in accordance with the requirements of the PA 2008 and associated secondary legislation. This is in line with guidance stated in the Planning Inspectorate's Advice Note Seven[67] and the Planning Inspectorate's Advice on EIA Notification and Consultation[68].

5.16.2. It is noted that the Planning and Infrastructure Act 2025 received royal assent on 18 December 2025. This Act includes provisions which, on coming into force, will remove the statutory requirements for pre-application consultation under the PA 2008, including the requirement to consult on preliminary environmental information. The Applicant is monitoring the timing of commencement of those changes and will take this into account in developing its approach to consultation on the Proposed Development, as well as any new or revised guidance that may be published by the Government and any updated advice that may be published by the Planning Inspectorate. The detail below is based on the statutory requirements in force at the time of writing.

Non-Statutory and Statutory Consultation

5.16.3. Prior to the publication of the EIA Scoping Report, a public website has been launched, to enable the initial consultation events to proceed. The public consultation process (for non-statutory consultees) ran from 12 November 2025 to 8 January 2026. Statutory consultation is anticipated to commence in summer 2026. The website will provide up-to-date information on the Proposed Development as the design evolves and will include information on consultation events.

5.16.4. A Statement of Community Consultation (SoCC) will be prepared, in accordance with section 47 of the PA 2008, which will include information about the Applicant's consultation strategy, including how, where and when there will be an opportunity for members of the public to get involved and make comments. Buckinghamshire Council will be consulted on the SoCC, and their responses will be considered. Regulation 12 of the IP EIA Regulations 2017 provides that the SoCC must state whether the Proposed Development is EIA development and, if it is, how the Applicant intends to publicise and consult on Preliminary Environmental Information (PEI), under Regulation 12 of the IP EIA Regulations 2017.

Preliminary Environmental Information Report (PEIR)

5.16.5. PEI is defined in the IP EIA Regulations 2017 as:

a. *'information referred to in regulation 14(2) which –*

1. *has been compiled by the applicant; and*
2. *is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development (and of any associated development)' (Regulation 12(2)(b) of the EIA Regulations 2017).*

5.16.6. A PEI Report (PEIR) will be prepared, which will comprise of the detail outlined above, in line with Regulation 12(2)(b) of the IP EIA Regulations 2017. According to Planning Inspectorate's Advice Note Seven[26], there is no prescribed format for the PEI. The aim of the PEIR is to enable consultees to understand the likely environmental effects of the Proposed Development, and to help inform their consultation responses on the Proposed Development during the pre-application stage.

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[67] *Planning Inspectorate, 2025, Nationally Significant Infrastructure Projects - Advice Note Seven: Environmental Impact Assessment: process, preliminary environmental information and environmental statements. Available from: https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an. Accessed: 13 November 2025.*

68 Planning Inspectorate, 2024, Nationally Significant Infrastructure Projects: Advice on EIA Notification and Consultation. Available from: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-eia-notification-and-consultation. Accessed: 13 November 2025.

5.16.7. It is the intention that the format and methodology will broadly follow that of the final ES, as set out within this Scoping Report.

Consultation Report

5.16.8. In accordance with Section 49 of the 2008 Planning Act, all responses received during consultation will be considered and taken into account through the design of the Proposed Development. A Consultation Report will be produced, and submitted alongside the DCO application to the Planning Inspectorate. This will detail the consultation process, how consultee comments have been considered, and how the Applicant has complied with the consultation requirements of the PA 2008.

Forthcoming Changes as part of the Planning and Infrastructure Bill

5.16.9. The Planning and Infrastructure Bill 2025 received Royal Assent on 18 December 2025. The Planning and Infrastructure Bill includes a number of changes to consultation, including the removal of the requirement for statutory consultation on preliminary environmental information. Government undertook a consultation on the streamlining infrastructure planning, including specifically the removal of the statutory requirement to consult on preliminary environmental information as part of the pre-application stage for NSIP applications, in September 2025[69].

5.17. Proposed EIA Scope

5.17.1. To assist the reader, a summary of what is proposed to be 'scoped in' and 'scoped out' of the EIA is provided in Table 8.

5.17.2. Those environmental topics that are considered to potentially result in significant effects on the environment, have been '**Scoped In**' the EIA. *Section 6* of this EIA Scoping Report provides a topic-by-topic consideration of those topics which could potentially result in significant effects and includes an explanation of the proposed scope and methodology for each assessment.

5.17.3. Those environmental topics that are considered unlikely to result in significant effects on the environment, have been **'Scoped Out'** of the EIA. *Section 7* of this EIA Scoping Report sets out the justification for this approach. Where relevant, these topic sheets are supported by early technical assessments and baseline work.

Table 8 EIA Technical Topics

Environmental Topics	'Scoped Into' the EIA ✓ 'Scoped Out' of the EIA ✗		Additional Assessments to Accompany the Development Consent Order
	Enabling and Construction	Completed Development	
Air Quality	✓	✓	
Archaeology (Buried Heritage)	✗	✗	Archaeological Desk Based Assessment
Built Heritage	✓	✓	
Climate Change and Greenhouse Gases	✓	✓	
Ecology and Biodiversity	✓	✓	Preliminary Ecological Appraisal Phase 1 Habitat Survey Biodiversity Net Gain Report Protected Species and Other Relevant Survey Reports (appended to the ES) Habitats Regulation Assessment

[69] *MHCLG (September 2025), Consultation on streamlining infrastructure planning. Available from: https://www.gov.uk/government/consultations/consultation-on-streamlining-infrastructure-planning. Accessed: 13 November 2025.*

Environmental Topics	'Scoped Into' the EIA ✓ 'Scoped Out' of the EIA ✗		Additional Assessments to Accompany the Development Consent Order
	Enabling and Construction	Completed Development	
			Outline Landscape Environment Management Plan
Ground Conditions and Land Contamination	✓	✓	Ground Conditions and Geo-Environmental Report Remediation and Verification Strategy
Human Health	✗	✗	Health and Equalities Impact Assessment
Landscape and Visual Impact Assessment	✓	✓	
Major Accidents and Disasters	✓	✓	Flood Risk Assessment and Drainage Strategy Security Threat, Vulnerability, Risk Assessment[70]
Noise and Vibration	✓	✓	
Odours	✗	✗	
Socio-Economics	✓	✓	
Traffic and Movement	✗	✗	Transport Assessment (TA) Outline Travel Plan Outline Delivery and Servicing Management Plan Outline Construction Traffic Management Plan Outline Construction Environmental Management Plan (CEMP)*
Waste and Materials	✗	✗	Outline Site Waste Management Plan Operational Waste Management Strategy
Water Resources and Flood Risk	✗	✗	Flood Risk Assessment and Drainage Strategy Utilities Statement

5.18. Format and Content of the PEIR

5.18.1. As set out above, it is proposed that the approach, format and content of the PEIR will provide technical topic papers, which provide a technical assessment of the preliminary design for each of the topics scoped into the ES. This will be accompanied by a non-technical report which summarises the conclusions of the technical topic papers.

5.18.2. At the stage of preparing the PEIR, some elements of the Proposed Development will still be subject to ongoing design and some baseline survey work (i.e. protected species surveys) will be ongoing, and as such the PEIR will present an assessment of a scheme that is still subject to change. Any potential gaps in the baseline assessment and impact assessment will be made clear, and working assumptions in the absence of fixed design will be clearly set out.

5.19. Format and Content of the ES

5.19.1. The proposed scope and structure of the ES is as follows:

[70] *Hazardous Substance Consent will be obtained although this is not part of the DCO.*

ES Volume 1: Main ES – a document which forms the main body of the ES, and which comprises of the following non-technical and technical chapters:

Chapter 1: Introduction

Chapter 2: EIA Methodology;

Chapter 3: Alternatives and Design Evolution;

Chapter 4: The Proposed Development;

Chapter 5: Enabling and Construction;

Chapter 6: Socio-Economics;

Chapter 7: Air Quality;

Chapter 8: Noise and Vibration;

Chapter 9: Climate Change and Greenhouse Gases;

Chapter 10: Built Heritage;

Chapter 11: Ecology and Biodiversity;

Chapter 12: Ground Conditions and Land Contamination;

Chapter 13: Major Accidents and Disasters;

Chapter 14: Effect Interactions;

Chapter 15: Likely Significant Effects and Conclusions; and

Chapter 16: Environmental Management, Mitigation and Monitoring Schedule.

ES Volume 2: Landscape and Visual Impact Assessment – a separate landscape and visual impact assessment (LVIA) document;

ES Volume 3: Technical Appendices – comprises background data, technical reports, tables, figures and surveys.

ES Non-Technical Summary (NTS) - this will be a separate document providing a concise description of the Proposed Development, the alternatives considered, any identified mitigation measures and the residual likely significant environmental and socio-economic effects.

5.19.2. Schedule 4 of the EIA Regulations sets out the information for inclusion within an ES. In response to this Schedule of the EIA Regulations, a 'way-finding' table which sets out the information for inclusion within an ES and where this information will be presented within an Appendix of the ES.

6. POTENTIAL SIGNIFICANT ENVIRONMENTAL EFFECTS – TOPICS TO BE SCOPED INTO THE EIA

6.1. Overview

6.1.1. The following technical topics are proposed to scoped into the EIA:

a. Air Quality;

b. Climate Change and Greenhouse Gases;

c. Ecology and Biodiversity;

d. Ground Conditions and Land Contamination;

e. Built Heritage;

f. Landscape and Visual Impact;

g. Major Accidents and Disasters;

h. Noise and Vibration; and

i. Socio-Economics.

6.1.2. Detail of the proposed scope and methodology for assessment of the above topics within the ES is set out under each of the following topic sub-headings.

6.2. AIR QUALITY

Introduction

6.2.1. It is considered that there is the potential for likely significant effects relating to air quality and so this topic shall be '**scoped in**' to the EIA. The air quality assessment will be undertaken by RF Environmental Ltd.

Policy, Legislation and Guidance

6.2.2. The Air Quality ES Chapter will be based on current air quality policy and relevant guidance. This will include, but not be limited to:

Legislation

a. The Environment Act 199571, most recently amended in 2021[72];
b. The Air Quality (England) Regulations (2000)[73], as amended[74];
c. The Air Quality Standards Regulations (2010)[75] (as amended 2016[76]); and
d. Environmental Protection Act 1990[77].

Policy

e. Overarching National Policy Statement (NPS) for Energy (EN-1)[78]
f. NPS for Natural Gas Electricity Generating Infrastructure (EN-2)[79];
g. NPS for Electricity Networks Infrastructure (EN-5)[80]; and
h. National Planning Policy Framework (NPPF)[81];
i. Local Policy including Bucks District Council Local Plan;
j. Air Quality Strategy (AQS) for England in July 2023[82].

Guidance

k. National Planning Practice Guidance[83];

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[71] *1995 c.25. Environment Act 1995. HMSO.*
[72] *2021 c.30. Environment Act 2021. HMSO.*
[73] *SI 2000 No. 928. Environmental Protection, England. The Air Quality (England) Regulations 2000. HMSO.*
[74] *SI 2002 No. 3043. Environmental Protection, England. The Air Quality (England) (Amendment) Regulations 2002. HMSO.*
[75] *The National Archives (2010) The Air Quality Standards Regulations 2010 – Statutory Instrument No. 1001 [online]. Available at: https://www.legislation.gov.uk/uksi/2010/1001/contents/made. Accessed: 13 November 2025.*
[76] *The National Archives (2016) The Air Quality Standards (Amendment) Regulations 2016 – Statutory Instrument No. 1184 [online]. Available at: https://www.legislation.gov.uk/uksi/2016/1184/contents/made. Accessed: 13 November 2025.*
[77] *1990 c.43. Environmental Protection Act. HMSO.*
[78] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1). Available: https://assets.publishing.service.gov.uk/media/695d1015f41883f4e50ed9ab/overarching-national-policy-statement-for-energy-en-1-web-accessible.pdf Accessed: 15 January 2026.*
[79] *DESNZ (2024) National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2). Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147381/NPS_EN-2.pdf. Accessed: 15 September 2025.*
[80] *DESNZ (2026) National Policy Statement for Electricity Networks Infrastructure (EN-5). Available: https://assets.publishing.service.gov.uk/media/695d12e1b5c46330350ed9a1/national-policy-statement-for-electricity-networks-infrastructure-en-5-web-accessible.pdf. Accessed: 15 January 2026.*
[81] *Ministry of Housing, Communities & Local Government (2024) National Planning Policy Framework. Available: https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf. Accessed: 15 September 2025.*
[82] *Defra, The Air Quality Strategy for England. April 2023.*
[83] *Ministry of Housing, Communities and Local Government. 2019. Planning Practice Guidance: Air Quality. Available from: https://www.gov.uk/guidance/air-quality--3. Accessed: 13 November 2025.*

l. IAQM Guidance on the Assessment of Dust from Construction and Demolition[84];

m. IAQM and EPUK Guidance on Planning for Air Quality[85];

n. DEFRA Technical Guidance LAQM.TG(22)[86]; and

o. DEFRA Local Air Quality Management Policy Guidance (PG22)[87].

[84] *Holman et al (2024). IAQM Guidance on the assessment of dust from demolition and construction, Institute of Air Quality Management, London.*

[85] *Land-Use Planning & Development Control: Planning for Air Quality. Guidance from Environmental Protection UK and the Institute of Air Quality Management for the consideration of air quality within the land-use planning and development control processes. EPUK & IAQM. January 2017*

[86] *Defra, 'LAQM Technical Guidance (TG22)' (Department for Food, Environment and Rural Affairs (Defra), August 2022)*

[87] *Defra. 2025. Local Air Quality Management Policy Guidance (PG22)*

Baseline Conditions

Study Area

6.2.3. The Site is located approximately 1.5km to the west of Gerrards Cross, and approximately 2.5km to the east of Beaconsfield in Buckinghamshire, as measured from the Main Development Area. The Site is located on the southern side of Oxford Road, and to the north of the M40 motorway, in a semi-rural location. The immediate vicinity around the Site is predominantly a mixture of woodland and open fields and vegetation.

6.2.4. The study area will incorporate all sensitive receptors within the vicinity of the Site, which have the potential to be subject to significant effects from both the construction and operation of the Proposed Development.

6.2.5. The IAQM (2024) construction dust guidance requires that construction dust impacts are assessed up to 250m from the Proposed Order Limits of the Site. In addition, the construction-phase study area extends to 50 metres (m) from routes used by construction traffic on the public highway, up to 500m from the Site entrance(s), or 50m for smaller sites.

6.2.6. For operational impacts associated with energy plant on human health receptors, the study area includes worst-case human health receptors located up to 5km from the Site boundary. The study area for ecological impacts is in line with Environment Agency guidance and Woodland Trust guidance, as below:

6.2.7. Within 10km of the Site:

a. Special Protection Areas (SPAs);

b. Special Areas of Conservation (SACs); or

c. Ramsar Sites (protected wetlands);

6.2.8. Within 5km of the Site:

a. Ancient Woodlands;

6.2.9. Within 2km of the Site:

a. Sites of Special Scientific Interest (SSSIs);

b. Local Nature Sites (National Nature Reserves (NNRs), Local Nature Reserves (LNRs), Local Wildlife Sites (LWSs));

6.2.10. Where detailed road traffic modelling is necessary, receptors within 200m of any affected road links will also be included.

Current Baseline Conditions

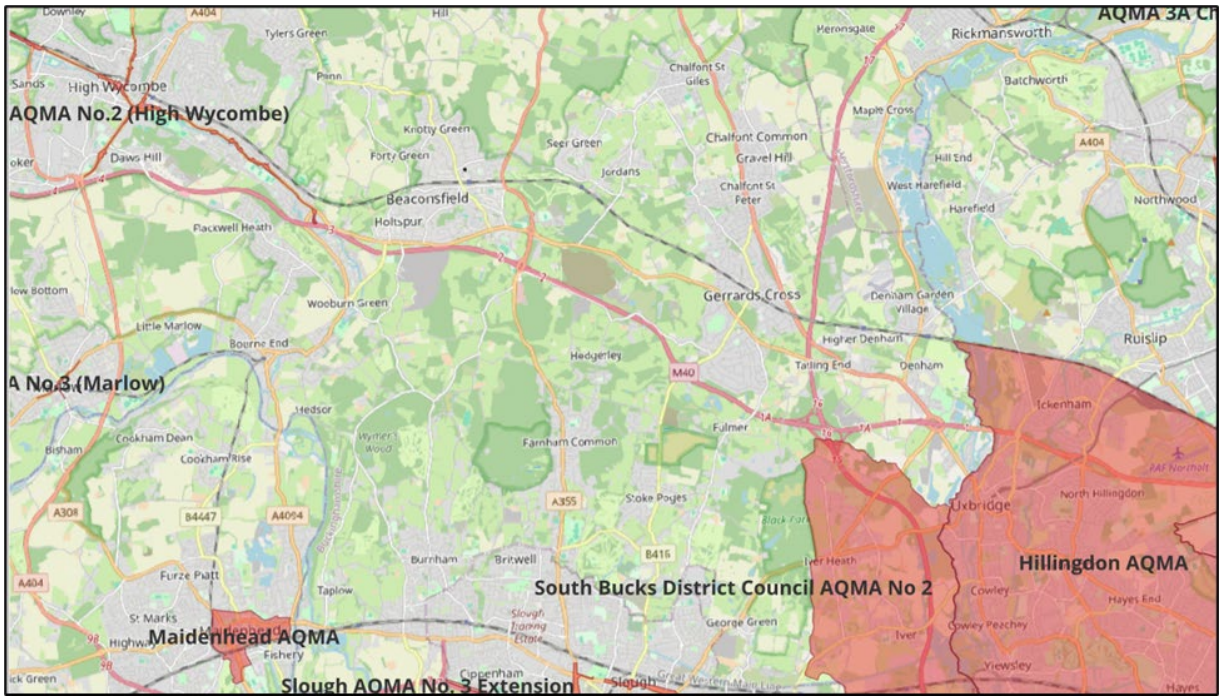
Air Quality Management Areas

6.2.11. The area within the jurisdiction of Buckinghamshire Council has five Air Quality Management Areas (AQMAs) all of which were designated due to exceedances of the nitrogen dioxide (NO_2) annual mean AQS objective[88]. The closest of these are South Bucks AQMA approximately 5km southeast of the Proposed Order Limits and High Wycombe AQMA 6.5km northwest of the Proposed Order Limits.

6.2.12. The Site did historically fall within an AQMA (South Bucks Air Quality management Area), but this was revoked in January 2025[89], as no air quality exceedances had been recorded in the previous five years[90].

[88] *Defra, 2025. UK Air. List of Local Authorities with AQMA's. Available at: https://uk-air.defra.gov.uk/aqma/list?la=B&country=all&pollutant=all. Accessed: 5 June 2025.*
[89] *South Bucks AQMA Revocation Order. Buckinghamshire Council Legal Services. 30 January 2025*
[90] *Defra. 2025. Local Air Quality Management Policy Guidance (PG22).*

Figure 1 Current Air Quality Management Areas



Existing Sources of Air Quality Pollutants

6.2.13. The key source of NO_2 and particulate matter in the vicinity of the Site will be from the local road network, including the M40 motorway, which is located to the south of the Site and runs on an east / west direction.

6.2.14. In addition, there are some existing industrial installations which could influence air quality at the Site.

6.2.15. According to the Environment Agency's public register for permitted installations[91], there are two large-scale industrial installations within the Site boundary and another one within 3km of the Site boundary. These are:

a. Infinis (Re-Gen Ltd), Gerrards Cross Landfill Site, Wapseys Wood Landfill GUP (permit no. EPR/HP3630LN) (existing methane energy plant located within the Site) - An existing energy centre continues to generate power from landfill gas, though output is declining as methane production reduces;

b. Veolia ES Landfill Ltd Wapseys Wood, Gerrards Cross Landfill, Gerrards Cross Landfill Site (permit no. EA/EPR/ XP3636KW/T001) (located within the Site); - The Site has been used for landfilling operations, which may have historically contributed to baseline particulate matter levels. However, the land is undergoing restoration, which will minimise any ongoing particulate matter concentrations; and

c. Motive Fuels Ltd Shell Beaconsfield, Hydrogen Refuelling Station (Permit no. EPR/SP3806ME) - This hydrogen refuelling station at Shell Beaconsfield is approximately 2.2km northeast of the Site. Given its distance and scale, it is not expected to have a significant impact on air quality at the Site.

6.2.16. In addition, Slade Farm Quarry, operated by Ingrebourne Valley Limited, and located at Hedgerley Ln, Slough SK2 3XD is another potential source of particulate matter.

6.2.17. There are no nearby gas turbines, combined heat and power (CHP) plants, or other major combustion sources.

[91] *Environment Agency (2025). Environmental Permitting Regulations - Installations [online]. Available at: Environmental Permitting Regulations – Installations (data.gov.uk) [Accessed June 2025]*

Local Air Quality Monitoring

6.2.18. Buckinghamshire Council operates two automatic monitoring stations across the borough, both of which measure NO_2. PM_{10} and $PM_{2.5}$ are not monitored by the Council.

6.2.19. The closest automatic monitoring station is located in High Wycombe (CM2) and situated in the High Wycombe AQMA. It is located approximately 11.5km northwest of the Site and 7.5m from the kerbside of Marlow Hill, nearest to this monitoring station.

6.2.20. Buckinghamshire Council undertook monitoring of NO_2 concentrations using 155 passive diffusion tube sites during 2023. The closest diffusion tube monitoring location is over 2.5km from the Site (to the northwest). The results for the diffusion tube monitoring locations closest to the Site are presented in Table 9. The locations are presented in Figure 2.

6.2.21. Monitoring data between 2019 and 2023, presented in Table 9, show that, with the exception of SB47 in 2019, all sites were within the AQS objective of 40 µg/m^3 for annual mean NO_2.

6.2.22. Defra Technical Guidance Note TG22 states that when the annual mean NO_2 concentration at diffusion tube locations is less than 60 µg/m^3, the short term (one-hour) objective for NO_2 is unlikely to be exceeded. The data in Table 9 demonstrate that none of the NO_2 concentrations at the diffusion tube locations exceeded 60 µg/m^3 and therefore the one-hour objective is not likely to have been breached between 2019 and 2023.

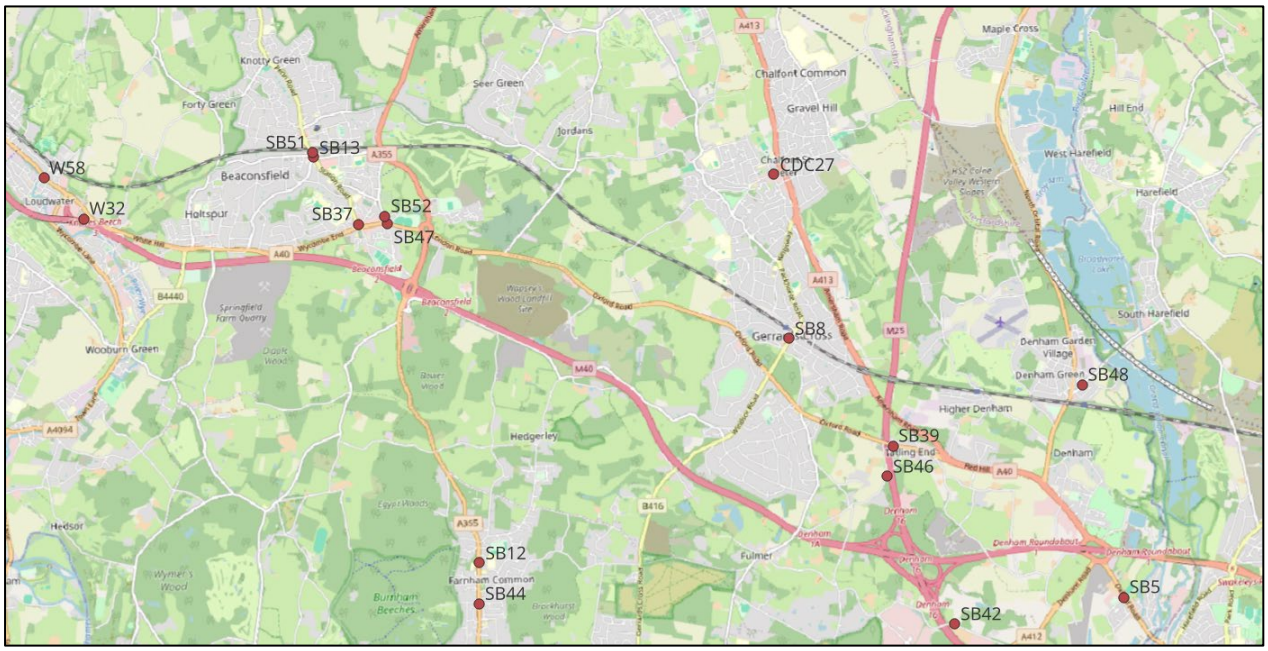
Table 9 Summary Of Annual Mean NO_2 Monitoring

Site ID	Easting, Northing	Site Type	Distance from site (km) and direction	Annual Mean Concentration (µg/m^3)				
				2019	2020	2021	2022	2023
CM2	486352, 192478	Roadside (Automatic)	11.7 (NW)	-	23.39	26	28	23
SB47	494862, 190156	Roadside	2.9 (NW)	42.1	28.3	29.6	20.8	21.8
SB52	494825, 190250	Roadside	3.0 (NW)	-	-	-	-	20.2
W32	490784, 190216	Roadside	6.7 (NW)	26,6	21.8	19.0	19.3	17.5
SB12	496095, 185599	Roadside	3.2 (SW)	32.3	23.1	26.4	21.4	21.2
SB8	500259, 188613	Roadside	2.9 (E)	35.4	22.8	24.8	17.1	19.2
SB46	501568, 186763	Roadside	4.6 (SE)	30.7	20.4	22.3	16.1	17.7
W25	486079, 192883	Urban Background	12 (NW)	27.1	23.4	31.6	21.1	18.0

Notes:
Exceedances of the NO_2 annual mean AQS objective of 40 µg/m^3 are shown in bold.
NO_2 annual means in excess of 60 µg/m^3, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in bold and underlined.

6.2.23. Mean hourly NO_2 concentrations recorded at the continuous roadside monitor did not exceed the 200 µg/m^3 objective in all reported years.

Figure 2 Local Diffusion Tube Monitoring Locations



Future Baseline Conditions

Defra Background Air Quality Data

6.2.24. Estimated background concentrations at the Site have been determined for 2025 (current baseline), 2027 and 2030 using Defra's background maps[92], to demonstrate general trends. Concentrations of NO_2, PM_{10} and $PM_{2.5}$ have been used for the grid square centred on 497500, 188500, which overlays the Site. The background concentrations are set out in Table 10. The background concentrations are all within the AQS objectives in 2025 and predict a downward trend for NO_2 concentrations to 2030. PM_{10} concentrations are predicted to remain stable and $PM_{2.5}$ concentrations are predicted to increase by 2030.

Table 10 Predicted Annual Mean Background Pollutant Concentrations

Site ID	2025	2027	2030
NO_2 (µg/m^3)	15.9	15.1	13.9
PM_{10} (µg/m^3)	14.8	14.8	14.8
$PM_{2.5}$ (µg/m^3)	8.4	8.4	8.5

6.2.25. Overall, the baseline data indicates that annual NO_2, PM_{10} and $PM_{2.5}$ objectives are currently being met at the Site and are expected to continue to do so.

Receptors

Human Receptors

6.2.26. Sensitive human receptors are defined as locations in the study area where annual mean Air Quality Assessment Levels (AQALs) apply (i.e., residential dwellings, schools and hospitals) as prescribed in the AQS.

6.2.27. The following Air Quality Objectives (AQOs) set out in Table 11 apply to human receptors.

[92] *Department for Environment, Food and Rural Affairs. (Defra). 2021. Background mapping for local authorities. [online] https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2021. Accessed 5 June 2025.*

Table 11 UK AQOs for NO_2 and Particulates

Pollutant	Time Period	Objective
Nitrogen Dioxide (NO_2)	1-hour Mean	200 µg/m^3 not to be exceeded more than 18 times a year
	Annual Mean	40 µg/m^3
PM_{10}	1-hour Mean	50 µg/m^3 not to be exceeded more than 35 times a year
	Annual Mean	40 µg/m^3
$PM_{2.5}$*	Annual Mean	20 µg/m^3

** The $PM_{2.5}$ target of 20 µg/m^3 is covered by the Air Quality Standards Regulations 2010. There are stricter $PM_{2.5}$ interim targets prescribed in The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023, however it is the responsibility of national government and is not covered in Regulations aimed at the LAQM framework. Local authorities do have a role to play in delivering reductions in $PM_{2.5}$.*

6.2.28. The AQS objectives only apply where members of the public are likely to be regularly present for the averaging time of the objective. The IAQM guidance states that the annual mean objectives apply to all locations where members of the public might be regularly exposed. Defra Technical Guidance Note TG22 provides the following examples of where annual mean AQS objectives should apply.

a. Residential properties;
b. Schools;
c. Hospitals; and
d. Care homes.

6.2.29. The air quality ES chapter will be informed by both of the above guidance documents.

6.2.30. The 24-hour mean objective applies to all locations where the annual mean objective would apply, together with hotels and gardens of residential properties.

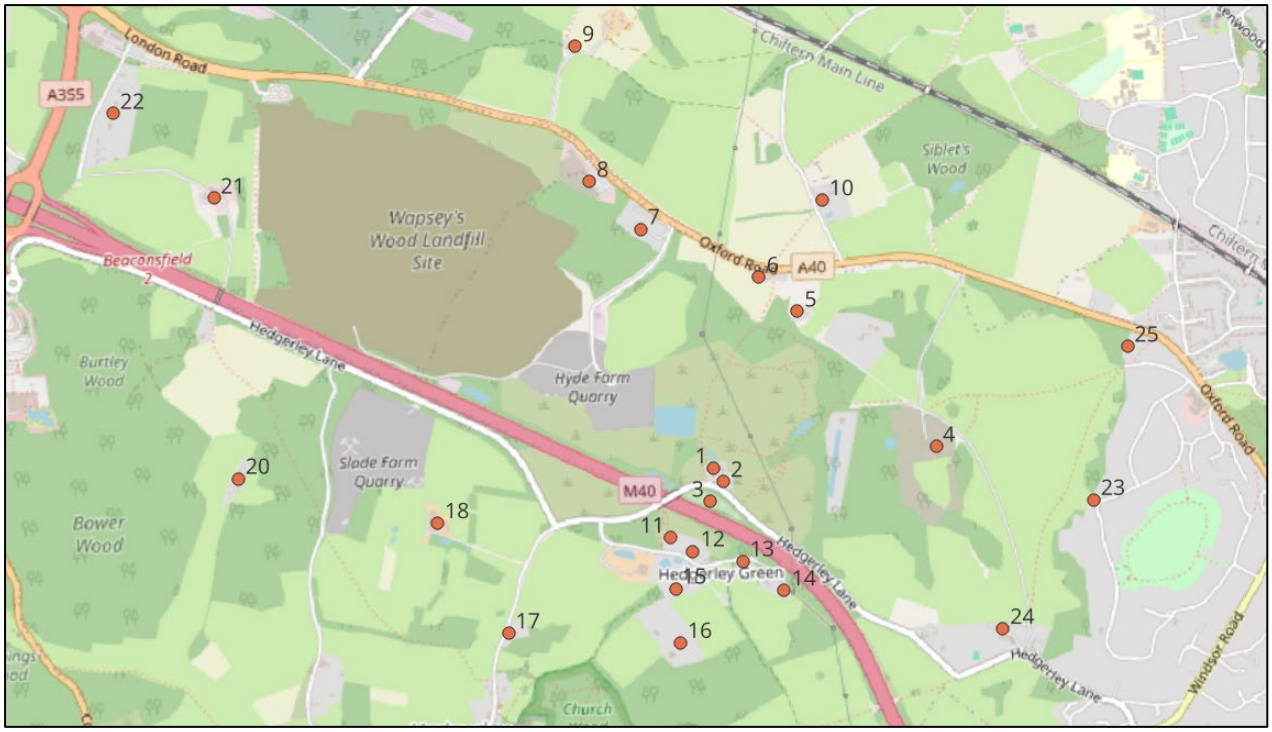
6.2.31. The nearest residential receptors are located 250m to the east, 300m to the southwest and approximately 750m to the northwest of the Site. Table 12 presents the human receptors identified.

Table 12 Human Receptors

Receptor ID	Location	Type	X	Y
R1	Linden Therapies, Hedgerley Lane, SL9 8SX	Commercial	497781.9	188287.5
R2	South View Lodge, Hedgerley Lane, SL9 8SX	Residential	497816.7	188240.2
R3	Hedgerley Allotments, Hedgerley Lane, SL9 8SX	Allotment	497769.5	188165.6
R4	Bulstrode Park, Gerrards Cross, SL9 8SZ	Commercial	498617.5	188372
R5	Brooklands Lodge, Oxford Road, SL9 8TB	Residential	498094.6	188880.4
R6	Oxford Road, SL9 8TB	Residential	497951.8	189009.5
R7	10A Wapseys Wood Caravan Park, Oxford Road, SL9 8TD	Caravan Park	497508.4	189187.1
R8	Crowne Plaza Gerrards Cross by IHG, Oxford Road, HP9 2XE	Hotel	497312.8	189368.2
R9	Stampwell Farm, Oxford Road, HP9 2XD	Residential	497258.6	189878

Receptor ID	Location	Type	X	Y
R10	Favershams Meadow, Mumfords Lane	Residential	498188	189296
R11	Moat Farm Cottages, Wapseys Lane, SL2 3XQ	Residential	497621.1	188026.9
R12	Bulstrode House, Wapseys Lane, SL2 3XH	Residential	497703.8	187975.7
R13	Wapseys Lane, SL2 3XH	Residential	497892.7	187938.3
R14	Wapseys Lane, SL2 3XH	Residential	498046.4	187831.3
R15	Hedgerley Green, SL2 3XJ	Residential	497637.9	187835.3
R16	Hedgerley Green, SL2 3XJ	Residential	497658.2	187631.3
R17	Shell House, Village Lane, SL2 3UY	Residential	497011.7	187670.2
R18	Slade Farmhouse, Village Lane, Hegderley, SL2 3XD	Residential	496742.1	188081.5
R19	Hillmotts Farm, Hedgerley Lane, HP9 2SB	Residential	495992.9	188248.2
R20	Bowerwood Cottages, Hedgerley Lane, HP9 2SB	Residential	495902	189305.7
R21	The Old Barn, Hyde Farm, Hedgerley Lane, Beaconsfield HP9 2SA	Residential and Commercial	495524.2	189623.9
R22	The Grove, Pyebush Ln, Beaconsfield HP9 2RX	Residential	499208.9	188169.1
R23	79-105 Camp Rd, Gerrards Cross SL9 7PB	Residential	498867.8	187683.9
R24	Hedgerley Ln, Gerrards Cross SL9 8SY	Residential	499338.2	188748.5
R25	8 Main Dr, Gerrards Cross SL9 7PS	Residential	497781.9	188287.5

Figure 3 Closest Human Receptors to the Site



Ecological Receptors

6.2.32. The Environment Agency's Air Emissions Risk Assessment Guidance provides advice on which ecological sites should be considered as sensitive receptors within dispersion modelling studies.

6.2.33. A review of information available on Defra's Multi-Agency Graphical Information[93], for the Countryside (MAGIC) website has been undertaken. The worst-case ecological receptors will be included in the assessment. The ecological sites falling within the relevant screening distances are presented in *Section 6.4: Ecology and Biodiversity*.

6.2.34. Ecological receptors will be included in the modelling to assess nitrogen and acid deposition rates and dust, where applicable.

Assessment of Significant Effects

6.2.35. The Air Quality ES chapter will assess:

a. The potential for air quality impacts throughout the enabling and construction works and as a result of the completed development and resultant air quality effects;

b. The likely significant air quality effects;

c. Any required mitigation or monitoring to address any likely significant adverse air quality effects; and

d. The potential for cumulative effects in relation to air quality with other schemes[94] in the surrounding area.

[93] *Defra's Multi-Agency Graphical Information [online]. Available at: Magic Map Application (defra.gov.uk) [Accessed June 2025]*

[94] *The method for identifying cumulative schemes to be assessed is detailed in the Cumulative Effects Assessment section of this Scoping Report.*

Enabling and Construction

6.2.36. As there are human and ecological receptors within 50m of potential construction dust sources, human health impacts, dust soiling impacts and ecological impacts will require consideration when determining the dust risk level.

6.2.37. The IAQM guidance advises that the greatest impacts will arise within close proximity to the source. For human receptors this is typically within 250m of the Site or within 50m of the routes used by construction vehicles to access the Site (up to 250m from the Site entrance). For ecological receptors this would reduce to 50m from the Site and site access roads.

6.2.38. The potential likely significant effects associated with the construction phase will arise from:

a. Emissions of dust, PM_{10} and $PM_{2.5}$ from construction activities;

b. Emissions of NO_2, PM_{10} and $PM_{2.5}$ from Non-Road Mobile Machinery (NRMM); and

c. Emissions of NO_2, PM_{10} and $PM_{2.5}$ from construction traffic.

Completed Development

6.2.39. All identified receptors listed in Table 12 will be included in the operational assessment.

6.2.40. The pollution sources to consider from the operational Proposed Development are:

a. Emissions of NO_2, PM_{10} and $PM_{2.5}$ from new backup generators for the Data Centre Campus;

b. Emissions of NO_2, PM_{10} and $PM_{2.5}$ from the Energy Centre; and

c. Emissions of NO_2, PM_{10} and $PM_{2.5}$ from operational traffic.

d. Other emissions will be considered as are usually required as part of the Environmental Permitting process.

Proposed Assessment Methodology

Air Quality Survey

6.2.41. A desk study of available sources of air quality monitoring data (as referred to under the '*Current Baseline Conditions*' section above) will be supplemented by a dedicated diffusion tube monitoring programme, which commenced in May 2025 and will continue running for a period of 6 months. Monitoring locations are within approximately 250m to 1km of the Proposed Order Limits and will provide data for future dispersion modelling.

6.2.42. Monitoring locations have been identified to represent the range of existing air quality conditions (roadside and urban background) across the study area, and near existing receptors where worst-case NO_2 concentrations are expected, i.e. roadside locations. Details of the monitoring locations are presented below in Table 13 and shown in Figure 4 below.

Table 13 Baseline Diffusion Tube Monitoring Locations

Site ID	Easting	Northing	Site Type
DT1	498051.1	188041.8	Urban Background
DT2	497743.3	187894.8	Roadside
DT3	497582.6	188014.2	Roadside
DT4	497155.9	189611.4	Roadside
DT5	497988.3	188990	Urban Background
DT6	497542.8	188397.9	Roadside

Site ID	Easting	Northing	Site Type
DT7	495579	189834.2	Roadside
DT8	495557	189841	Roadside

Notes:
An Urban Background location is defined as an urban location distanced from major pollution sources and therefore broadly representative of wider background conditions.
A Roadside location is typically within one to five metres of the kerb of a busy road intended to measure pollutant concentrations influenced directly by traffic emissions.

Figure 4 Baseline Diffusion Tube Monitoring Locations

Enabling and Construction

Fugitive Emissions of Dust and Particulate Matter

6.2.43. The assessment of construction impacts will be undertaken in line with IAQM (2024) *Guidance on the Assessment of Dust from Demolition and Construction.*

6.2.44. This guidance provides a risk-based approach to the assessment of the potential for dust effects from four types of activities taking account of the sensitivity of the environment surrounding the works:

a. Demolition;

b. Earthworks;

c. Construction; and

d. Track-out (the movement of dust/mud offsite on construction vehicles).

6.2.45. The IAQM guidance on the assessment of dust from demolition and construction recommends that the significance of effects is only assessed after mitigation is taken into account and advises that, in the majority of circumstances, no significant effects are likely.

6.2.46. The main purpose of the assessment is to ensure that any proposed mitigation is appropriate for the Proposed Development, based on the scale and nature of the works, which determines the potential dust emission magnitude and the sensitivity of the area to dust impacts.

6.2.47. These two factors are combined to determine the risk of dust impacts with no mitigation applied. The risk category assigned to the development can be different for each of the four potential activities.

Determining the Dust Emission Magnitude

6.2.48. The dust emission magnitude is determined using Table 14 below.

Table 14 Dust Emission Magnitude Matrix

Activity	Dust Emission Magnitude		
	Large	**Medium**	**Small**
Demolition	Total building volume >50,000 m^3, potentially dusty construction material (e.g. concrete), on-site crushing and screening, demolition activities >20 m above ground level	Total building volume 20,000 – 50 000m^3, potentially dusty construction material, demolition activities 10-20 m above ground level	Total building volume <20,000 m^3, construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities <10m above ground, demolition during wetter months
Earthworks	Total site area >10,000 m^2, potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), >10 heavy earth moving vehicles active at any one time, formation of bunds >8 m in height, total material moved >100,000 tonnes	Total site area 2,500 – 10,000 m^2, moderately dusty soil type (e.g. silt), 5-10 heavy earth moving vehicles active at any one time, formation of bunds 4 m - 8 m in height, total material moved 20,000 tonnes – 100,000 tonnes	Total site area <2,500 m^2, soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <4 m in height, total material moved <10,000 tonnes, earthworks during wetter months
Construction	Total building volume >100,000 m^3, piling, on site concrete batching; sandblasting	Total building volume 25,000 m^3 – 100,000 m^3, potentially dusty construction material (e.g. concrete), piling, on site concrete batching	Total building volume <25,000 m^3, construction material with low potential for dust release (e.g. metal cladding or timber)
Trackout	>50 HDV (>3.5t) trips in any one day, potentially dusty surface material (e.g. high clay content), unpaved road length >100 m	10 – 50 HDV (>3.5t) trips in any one day, moderately dusty surface material (e.g. high clay content), unpaved road length 50m – 100 m;	<10 HDV (>3.5t) trips in any one day, surface material with low potential for dust release, unpaved road length <50 m.

Determining the Sensitivity of the Area

6.2.49. The sensitivity of the receptors will be defined as per IAQM matrix tables presented in Table 15 to Table 18.

Table 15 Sensitivity of the Area to Dust Soiling Effects on People and Property

Receptor Sensitivity	Number of receptors	Distance from the source (m)			
		<20	<50	<100	<250
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

Table 16 Sensitivity of the Area to Human Health Impacts

Receptor Sensitivity	Annual Mean PM_{10} concentrations	Number of Receptors	Distance from the source (m)			
			<20	<50	<100	<250
High	>32ug/m^3	>100	High	High	High	Medium
		10-100	High	High	Medium	Low
		1-10	High	Medium	Low	Low
	28-32ug/m^3	>100	High	High	Medium	Low
		10-100	High	Medium	Low	Low
		1-10	High	Medium	Low	Low
	24-28ug/m^3	>100	High	Medium	Low	Low
		10-100	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	<24ug/m^3	>100	Medium	Low	Low	Low
		10-100	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Medium	>32ug/m^3	>10	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	28-32ug/m^3	>10	Medium	Low	Low	Low
		1-10	Low	Low	Low	Low
	24-28ug/m^3	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
	<24ug/m^3	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Low	-	>1	Low	Low	Low	Low

Table 17 Sensitivity of the Area to Ecological Impacts

Receptor Sensitivity	Distance from the source (m)	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Table 18 Example of the Outcome of Defining the Sensitivity of the Area

Potential Impact	Sensitivity of the Surrounding Area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	High	High	High	Medium
Human Health	High	High	High	High
Ecological	Medium	Medium	Low	Low

6.2.50. If exceedance of the IAQM screening thresholds indicate the need for further assessment, the guidance prescribes a risk classification process for each activity type; demolition, earthworks, construction, and trackout.

6.2.51. This combines an evaluation of the potential emission magnitude (classified as small, medium, or large depending on the scale and nature of the works) with an appraisal of the sensitivity of the surrounding area. Construction activities are divided into four types to reflect their different potential impacts, as outlined above. The dust emission magnitude is determined as per IAQM matrices, as detailed in Table 19 to Table 23 below.

Table 19 Risk of Dust Impacts – Demolition

Sensitivity of the Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium risk	Medium risk
Medium	High Risk	Medium risk	Low Risk
Low	Medium risk	Low Risk	Negligible

Table 20 Risk of Dust Impacts – Earthworks

Sensitivity of the Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium risk	Medium risk
Medium	High Risk	Medium risk	Low Risk
Low	Medium risk	Low Risk	Negligible

Table 21 Risk of Dust Impacts – Construction

Sensitivity of the Area	Dust Emission Magnitude		
	Large	**Medium**	**Small**
High	High Risk	Medium risk	Low risk
Medium	Medium risk	Medium risk	Low Risk
Low	Low risk	Low Risk	Negligible

Table 22 Risk of Dust Impacts – Trackout

Sensitivity of the Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium risk	Low risk
Medium	Medium risk	Medium risk	Low Risk
Low	Low risk	Low Risk	Negligible

6.2.52. The risk of dust impacts for the four activities can then be summarised in a table, as per the IAQM matrix presented in Table 23 below.

Table 23 Summary Dust Risk Table to Define Site-Specific Mitigation

Potential Impact	Sensitivity of the Surrounding Area			
	Demolition	**Earthworks**	**Construction**	**Trackout**
Dust Soiling	High Risk	High Risk	Low Risk	Medium risk
Human Health	High Risk	Medium risk	Low Risk	Medium risk
Ecological	Negligible	Negligible	Negligible	Negligible

Note: Content of Table are presented for information purposes only and do not reflect the site-specific risk assessment.

6.2.53. The dust emission magnitudes and sensitivity of the surrounding area are combined using the above matrix to determine the risk significance with no mitigation applied.

6.2.54. The implementation of appropriate mitigation measures can then be incorporated to reduce the risk of significant effects as far as is reasonably possible.

Construction and Operational Phase: Road Traffic Emissions

6.2.55. Traffic forecasts for peak construction and Proposed Development full opening year scenarios will be screened against indicative criteria for requiring an air quality assessment, as set out in EPUK/IAQM Planning Guidance.

6.2.56. Where the requirement for inclusion in the air quality assessment is confirmed, the impacts due to changes in road traffic emissions will be assessed using ADMS Roads dispersion modelling software.

Completed Development

6.2.57. Detailed dispersion modelling of the impact of the operation of the back-up generators and Energy Centre on local air quality (nitrogen oxide (NO_X) and nitrogen deposition on ecological receptors and NO_2, PM_{10} and $PM_{2.5}$ at human receptors) will be undertaken.

6.2.58. The following modelling scenarios will be considered:

a. Routine maintenance testing of backup emergency generators for the Data Centre Campus and operation of the Energy Centre;

b. Emergency power outage, for backup emergency generators only;

c. Normal operating hours, for the Energy Centre only; and

d. Decarbonisation transition of the Energy Centre.

6.2.59. The ADMS-6 gaussian dispersion model will be used to model the potential impact of the back-up generators for the Data Centre Campus and the Energy Centre gas turbines. This model is widely used in regulatory and planning applications in the UK, including Defra's LAQM TG(22) Guidance and IAQM Planning Guidance, and is considered appropriate and robust.

6.2.60. The Energy Centre will operate constantly (24/7) to supply power to the data centres. Backup emergency generators will be subject to a routine testing regime, as listed below but are not expected to operate to power the data centres unless in the case of an emergency scenario (i.e. power outage).

6.2.61. The proposed generators will see only occasional use. Some tests will only have one or a few generators running simultaneously. The potential backup emergency generator testing regime is outlined below:

a. Test 1: Monthly;

b. Test 2: Quarterly;

c. Test 3: Annual: Selective Catalytic Reduction (SCR) Maintenance95;

d. Test 4: Annual: Generator Maintenance;

e. Test 5: Annual: Emission Measurement;

f. Test 6: Annual: Black Building Test (all backup emergency generators running at once); and

g. Test 7: Emergency scenario (power utility outage requiring emergency backup generators to power data centres).

6.2.62. Proposed buildings will be included within the model to ensure that potential stack downwash, where exhaust gases emitted from a stack are forced downward toward the ground or building surfaces instead of dispersing upward into the atmosphere as intended, is assessed.

6.2.63. Meteorological data will be taken from Northolt, approximately 12.9km southeast of the Site. To account for annual variations in weather conditions, the model will be run with five sequential years of meteorological data (2020–2024 inclusive), then the worst results reported at each receptor.

Decarbonisation Readiness

6.2.64. As set out in *Section 3.6* of this EIA Scoping Report, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion.

6.2.65. Considerations for decarbonisation via hydrogen conversion in relation to air quality relate to the additional NOx emissions from hydrogen combustion. Dispersion modelling of the associated hydrogen combustion emissions will follow the methodology set out above, based on the Energy Centre running

[95] *This testing scenario assumes that SCRs will be required and incorporated within the Proposed Development. Should SCRs not be required, this testing scenario would not be included.*

on 100% hydrogen as a worst case. The requirement for any SCR to minimise NOx emissions will be identified.

Determining Effect Significance

6.2.66. Impacts on air quality, whether adverse or beneficial, will have an effect on human health that can be judged as 'significant' or 'not significant'. The judgement on significance relates to individual impacts on each receptor. There is no official guidance in the UK in relation to development control on how to assess the significance of operational effects. The approach developed jointly by EPUK and the IAQM[96] will therefore be used. The assessment will consider both the magnitude of predicted changes in pollutant concentrations for each individual receptor, expressed as a percentage of the relevant air quality objectives, and the sensitivity of existing and future receptors, taking account of their proximity to, or exceedance, of those objectives.

6.2.67. Each receptor will be concluded to having a negligible, minor, moderate or major effect. Typically, negligible and minor effects are considered 'not significant', and moderate and major effects are considered 'significant'.

6.2.68. The EPUK/IAQM guidance provides a framework, but no specific criteria, to inform the assessment of the significance of effects using professional judgement.

Cumulative Effects

6.2.69. In accordance with the Planning Inspectorate's Advice Note on Cumulative Effects[97], a long list of cumulative schemes will be identified for the Zone of Influence as set out above under 'Study Area', considering Tier 1, Tier 2 and Tier 3 developments. Consideration will then be given as to whether or not the identified developments should progress to the assessment of cumulative effects based on their distance from the Site and the type of development proposed. This will be clearly documented in the ES. Information on the development scoped into the cumulative effects assessment will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country Planning development and the Planning Inspectorate's register for DCO developments). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3.

6.2.70. The methodology for assessing cumulative air quality effects for Tier 1 and Tier 2 developments will be the same as that used for the assessment of the stand-alone effects. Cumulative air quality effects will be assessed quantitatively through dispersion modelling incorporating emissions from relevant committed developments, where sufficient available data can be used. The predicted concentrations from all relevant cumulative schemes, and the Proposed Development, will be combined to represent the cumulative scenario. The cumulative effects assessment taking into consideration any Tier 3 development will be more qualitative as detailed information for these projects is unlikely to be available. Conservative assumptions will be made within the assessment methodology to account for any remaining uncertainties.

Mitigation

6.2.71. Backup emergency generators and Energy Centre gas turbines will be the primary operational sources of emissions. Dispersion modelling will establish the following parameters for design and mitigation. The following design measures will be considered:

a. Location and Dispersion Conditions: Backup emergency generators and Energy Centre gas turbines near human or ecological receptors, and upwind, pose higher risks;

b. Height of Emission Release (stack height) e.g. higher stacks disperse pollutants more effectively;

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[96] *Land-Use Planning & Development Control: Planning for Air Quality. Guidance from Environmental Protection UK and the Institute of Air Quality Management for the consideration of air quality within the land-use planning and development control processes. EPUK & IAQM. January 2017.*

[97] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment*

c. Number and capacity of backup emergency generators and Energy Centre gas turbines e.g. increase in either will increase emissions;

d. Reduction in the backup emergency generators operational hours will decrease emissions (Energy Centre gas turbines will be constantly operational on a 24/7 basis); and

e. Emissions Abatement Technology – for instance, use of SCR will decrease NOx rates.

Impacts to be Scoped Out

6.2.72. During the operational phase, the Proposed Development has the potential to generate additional vehicle movements on the local road network. However, based on the nature and scale of the Proposed Development and the existing site operations, the change in trip generation is expected to be limited and unlikely to exceed the indicative screening thresholds set out in the EPUK and IAQM (2017) Land-Use Planning & Development Control: Planning for Air Quality guidance. These thresholds identify the need for a detailed assessment only where increases in traffic flows exceed 100 AADT (LDVs) or 25 AADT (HDVs) within or adjacent to an AQMA, or 500 AADT (LDVs) and 100 AADT (HDVs) elsewhere. On this basis, the potential for significant air quality effects from operational traffic is anticipated to be low. Once detailed traffic data become available, these will be reviewed against the EPUK/IAQM screening criteria, and if thresholds are exceeded, a quantitative dispersion modelling assessment will be undertaken to confirm the significance of effects

Summary

6.2.73. The potential effects to be assessed within the ES will be as follows:

a. The impact of the enabling and construction works of the Proposed Development on concentrations of NO_2, PM_{10} and $PM_{2.5}$ on existing sensitive receptors;

b. The impacts of the complete and operational Proposed Development on concentrations of NO_2, PM_{10} and $PM_{2.5}$ from road traffic at existing and future human and ecological receptors;

c. The impacts of the operational phase of the Proposed Development on concentrations of NO_2, PM_{10} and $PM_{2.5}$ from point sources at existing and future human and ecological receptors; and

d. The cumulative impacts on air quality of the Proposed Development in combination with cumulative schemes identified in the local area.

Odours

6.2.74. Noting that the Proposed Development will require excavation of areas which could potentially have been used for historic landfill, there is the potential for some odours to be released during the enabling and construction works. Further site investigations will identify the composition of the material within the area to be excavated, which will determine whether or not further management measurements and controls, including whether the implementation of an Odour Management Plan and an odour monitoring regime is necessary. On this basis, it is not proposed to include an assessment of odours within the ES, and therefore this topic is proposed to be scoped out of the ES.

6.3. CLIMATE CHANGE AND GREENHOUSE GASES

Introduction

6.3.1. It is considered that there is the potential for likely significant effects relating to climate change and so this topic shall be '**scoped in**' to the EIA. The climate change assessment will be undertaken by Air Quality Consultants Ltd, part of Logika Group.

6.3.2. This Topic Sheet sets out the scope of the detailed environmental assessment for climate change. There are two components of the assessment of climate change that will be included in the EIA; a Greenhouse Gas (GHG) Assessment, and a Climate Change Resilience and Adaptation (CCRA) Assessment:

a. Part A: The GHG Assessment is an assessment of the Proposed Development's impact on climate change. The GHG Assessment will provide a quantification of the GHG emissions resulting from the construction, operation and decommissioning of the Proposed Development and resultant effects.

b. Part B: The CCRA Assessment is an assessment of the impact of future climate change on the Proposed Development. It will assess the ability of the Proposed Development to adapt to and be resilient to potential future changes in climate, such as hotter dryer summers, warmer wetter winters and increased frequency and severity of storms.

6.3.3. Specifically, Part A and Part B within this Scoping Report detail:

a. An overview of national and local policy, legislation and guidance relevant to the Proposed Development;

b. An overview of the relevant baseline conditions within the Proposed Development;

c. The methodology that will be used to undertake the assessment, including identification of receptors, assessment of effects and the assessment methodology;

d. An overview of how mitigation measures will be identified and implemented into the Proposed Development across its lifetime; and

e. The scope of assessment including, with justification, those effects that are proposed to be scoped in, and those proposed to be scoped out, of the assessment.

6.3.4. Within this Topic Sheet, the terms 'GHGs' and 'carbon' are used interchangeably to describe all GHG emissions, i.e. all emissions which might contribute to climate change, the predominant contributor of which is carbon dioxide (CO_2). The term CO_2e is also used, which refers to carbon dioxide equivalents, which is the main metric for quantifying GHGs.

Policy, Legislation and Guidance

6.3.5. Legislation, planning policy and guidance relating to Climate Change, and relevant to the Proposed Development, comprises:

Legislation

a. Climate Change Act 2008[98] and 2050 Target Amendment Order 2019[99];

b. Carbon Budget Order 2021[100];

c. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017[101];

d. Energy Act 2023[102];

[98] *HMSO (2008) Climate Change Act 2008*
[99] *HMSO (2019) The Climate Change Act 2008 (2050 Target Amendment) Order 2019*
[100] *HMSO (2021) The Carbon Budget Order 2021*
[101] *HMSO (2017) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017*
[102] *HMSO (2023) Energy Act 2023*

National Planning Policy

e. Overarching National Policy Statement (NPS) for Energy (EN-1)[103]

f. NPS for Natural Gas Electricity Generating Infrastructure (EN-2)[104];

g. NPS for Electricity Networks Infrastructure (EN-5)[105]; and

h. National Planning Policy Framework (NPPF)[106], specifically Paragraphs 8, 20 and 161 in relation to adaptation, mitigation and climate change resilience; and Paragraphs 164 to 168 in relation to the reduction of carbon emissions through design and reduced energy consumption.

Local Planning Policy

i. Draft Local Plan for Buckinghamshire[107]; and

j. Buckinghamshire Council Climate Change and Air Quality Strategy[108].

Guidance

k. Planning Practice Guidance for Climate Change[109];

l. IEMA[110] Guide: Assessing Greenhouse Gas Emissions and Evaluating their Significance[111];

m. The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol)[112];

n. PAS 2080:2023 Carbon Management in Buildings and Infrastructure[113];

o. Climate Change Committee (CCC) Net Zero Technical Report[114];

p. Seventh Carbon Budget: Advice for the UK Government[115];

q. IEMA EIA Guide: Climate Change Resilience and Adaptation[116];

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[103] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1). Available: https://assets.publishing.service.gov.uk/media/695d1015f41883f4e50ed9ab/overarching-national-policy-statement-for-energy-en-1-web-accessible.pdf Accessed: 15 January 2026.*

[104] *DESNZ (2024) National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2). Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147381/NPS_EN-2.pdf. Accessed: 15 September 2025.*

[105] *DESNZ (2026) National Policy Statement for Electricity Networks Infrastructure (EN-5). Available: https://assets.publishing.service.gov.uk/media/695d12e1b5c46330350ed9a1/national-policy-statement-for-electricity-networks-infrastructure-en-5-web-accessible.pdf. Accessed: 15 January 2026.*

[106] *Ministry of Housing, Communities & Local Government (2024) National Planning Policy Framework. Available: https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf. Accessed: 15 September 2025.*

[107] *Buckinghamshire Council (2025) Draft Local Plan for Buckinghamshire. Available: https://storymaps.arcgis.com/stories/a574e038c1914e5d8bf5a158b18bccac. Accessed: 15 September 2025.*

[108] *Buckinghamshire Council (2021) Climate Change and Air Quality Strategy. Available: https://www.buckinghamshire.gov.uk/environment/climate-change-and-sustainability/view-the-climate-change-and-air-quality-strategy/climate-change-and-air-quality-strategy/. Accessed: 15 September 2025.*

[109] *HM Government (2019) Planning Practice Guidance Climate Change. Available: https://www.gov.uk/guidance/climate-change. Accessed: 15 September 2025.*

[110] *IEMA (The Institute of Environmental Management and Assessment) has recently been rebranded under the new title of 'The Institute of Sustainability & Environmental Professionals' ('ISEP'). Guidance which was previously issued under the brand of IEMA remains referenced as so throughout this EIA Scoping Report.*

[111] *IEMA (2022) Assessing Greenhouse Gas Emissions and Evaluating their Significance. 2nd Edition*

[112] *World Resources Institute, World Business Council for Sustainable Development (2001) The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard. World Resource Institute, Revised Edition*

[113] *BSI (2023) PAS 2080: 2023 Carbon Management in Buildings and Infrastructure. Available: https://www.bsigroup.com/siteassets/pdf/en/insights-and-media/insights/brochures/pas_2080.pdf*

[114] *CCC (2019) Net Zero, Technical Report*

[115] *CCC (2025) Seventh Carbon Budget: Advice for the UK Government*

[116] *IEMA (2020) Environmental Impact Assessment Guide to: Climate Change Resilience & Adaptation*

r. Royal Institute of Chartered Surveyors (RICS) Whole Life Carbon Assessment for the Built Environment[117];

s. UK Climate Projections 2018 ('UKCP18') Key Results Spreadsheet[118];

t. UK Climate Projections: Headline Findings[119];

u. UK Climate Change Risk Assessment 2022[120];

v. The Third National Adaptation Programme (NAP3) and the Fourth Strategy for Climate Adaptation Reporting[121]; and

w. House of Commons Research Briefing: Data centres: planning policy, sustainability, and resilience[122].

Part A: GHG Assessment

Baseline Conditions

Study Area

6.3.6. The study area for the GHG assessment is defined by the likely location of emissions sources that contribute to the Proposed Development's lifecycle footprint. These include all on-site and off-site emissions directly and indirectly caused by the Proposed Development throughout its lifecycle. Specifically:

a. Direct emissions from construction, operation and decommissioning;

b. Emissions that arise throughout the supply chains of the energy, materials and components that make up the Proposed Development;

c. Emissions from the production and supply of energy and materials to the Proposed Development during operation;

d. Emissions from transportation of materials, staff and contractors; and

e. Emissions from the end-of-life handling of decommissioned materials and waste.

6.3.7. Some of these emissions will occur in the UK, and some (in particular the manufacture and transport of imported components) will occur overseas[123]. The considered emissions sources are detailed further in the Assessment of Effects section below.

Current and Future Baseline Conditions

6.3.8. Part of the Site contains landfill activities, with the landfill facilities no longer actively accepting waste. The landfill has fugitive methane emissions arising from the decay of organic waste in the landfill. A portion of this methane is currently captured and fed into four reciprocating engines that produce 4MW of biogas electricity by combusting the methane and releasing carbon dioxide. This electricity is exported to the National Grid. The portion of fugitive methane that is not captured is released directly to the atmosphere. Over time, the amount of organic matter decay in the landfill will decrease, which in turn reduces both the methane captured for electricity, and the methane emitted directly to the atmosphere. All methane is expected to have been released within approximately 30-40 years.

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[117] RICS (2023) Whole life carbon assessment for the built environment, 2nd edition
[118] Met Office UK (2018) UK Climate Projections
[119] Met Office UK (2019) UK Climate Projections: Headline Findings
[120] HMSO (2022) UK Climate Change Risk Assessment 2022
[121] Defra (2018) The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting
[122] House of Commons Library (2025) Research Briefing: Data centres, planning policy, sustainability and resilience. Available: https://researchbriefings.files.parliament.uk/documents/CBP-10315/CBP-10315.pdf. Accessed: 15 September 2025.
[123] The carbon emissions from manufacture of goods in European Economic Area (EEA) states that will be used in the Proposed Development are already permitted within that state, and the state is already aware of the activity, as it occurs within the state's borders. Additional notification of the activity is therefore not required, and there is no requirement for further consideration of transboundary impacts.

6.3.9. The operation of the biogas reciprocating engines, Quattro Waste Management activities and landfill maintenance involves a number of vehicle movements associated with servicing and staff commuting. The emissions from these vehicle movements are minor, in comparison with the emissions from landfill fugitive methane emissions.

6.3.10. The decay of organic matter from the closed landfill, the capture for electricity production and the direct release of fugitive methane to the atmosphere will continue, regardless of whether the Proposed Development is constructed or not. As such, there are not considered to be any emissions and sinks present in the baseline that will not also be present in the Proposed Development. The current and future baselines are therefore assumed to have zero net GHG emissions.

6.3.11. Nonetheless, the GHG impact of the landfill methane will be quantified in the ES chapter for information purposes, including predicted changes (reductions in methane emissions) over time. This will be based on the best available information at the time of writing the ES chapter.

Receptors

6.3.12. The assessment of GHGs does not include identification of sensitive receptors, as GHG emissions do not directly affect specific locations or receptors but lead to indirect effects by contributing to global climate change. Identification of sensitive areas for climate change has been undertaken by the Intergovernmental Panel on Climate Change (IPCC)[124]. Impacts on specific areas will not be included within the GHG assessment, since the impacts of GHG emissions will affect the global atmosphere and therefore need to be considered in a total context, rather than focus on localised areas.

Assessment of Effects

6.3.13. The Proposed Development will lead to the release of GHG emissions from its construction, operation and decommissioning.

6.3.14. The ES chapter will assess:

a. The quantity of GHG emissions across the lifetime of the Proposed Development: throughout the enabling and construction works, as a result of the completed development, and from decommissioning;[125]

b. The impact of these emissions on climate change. This will be measured in CO2e, which includes the contribution of all GHGs (i.e. gases with a Global Warming Potential (GWP)) that will be released;

c. The likely significance of the GHG emissions of the Proposed Development; and

d. Any required mitigation or monitoring to reduce GHG emissions.

6.3.15. Note that GHG emissions are inherently cumulative, as all GHG emissions contribute to cumulative global warming. In other words, if the Proposed Development were assessed in isolation (i.e. assuming no other global GHG emissions occur) then the effects would plainly be not significant. The same applies to the cumulative emissions of any number of local or regional developments that might be identified for consideration within the EIA. The contribution of these projects to global total GHG emissions will be small and the effects would not differ from those of the Proposed Development on its own. The assessment is therefore made in the context of cumulative global GHG emissions and a specific cumulative assessment for geographically proximal projects identified in the EIA is therefore not required.

6.3.16. The key GHG emissions sources included in the GHG assessment are as follows:

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[124] *IPCC (2022) Sixth Assessment Report Climate Change 2022: Impacts, Adaptation, and Vulnerability. Available at: https://www.ipcc.ch/report/ar6/wg2/. Accessed: 15 September 2025.*

125125

Enabling and Construction

a. The embodied carbon in components and materials used to construct the Proposed Development;

b. Emissions associated with transportation during the construction of the Proposed Development. This includes transportation of materials and components to the Proposed Development, including shipping, and construction worker transport;

c. Emissions associated with fuel and energy consumption for plant use during construction works; and

d. Emissions from excavation activities. This includes any emissions of methane or other landfill gases from direct excavation of areas of historic landfill, as well as any emissions from the potential disposal of landfill waste within the closed modern landfill cells within the Wider Ownership Area, should this option be required.

Complete and Operational

6.3.17. Emissions from energy use throughout operational lifetime:

a. Emissions from on-site diesel combustion (back-up generator testing);

b. Emissions from diesel production and transport to the Site (known as Well-to-Tank (WTT) emissions);

c. Emissions from on-site natural gas combustion in the gas-fired station Energy Centre;

d. Emissions from natural gas production and transport to the Site (WTT emissions);

e. Emissions associated with the operational maintenance, repair, and replacement of the Proposed Development; and

f. Emissions associated with traffic generated by the operation of the Proposed Development.

6.3.18. For the period post retrofitting of the Energy Centre in line with decarbonisation readiness[126]:

a. Emissions from the retrofitted Energy Centre. The decarbonisation technology that will be employed is hydrogen conversion, for which the GHG emissions will be assessed.

6.3.19. The strategy for the decarbonisation of the Proposed Development is subject to the forthcoming change to the Permitting Regulations. This will comprise the use of hydrogen technology.

Decommissioning

a. Emissions from energy and fuels consumed in the deconstruction of the Proposed Development at the end of its life;

b. Emissions from deconstruction transport; and

c. Emissions from transport, reuse, recycling, treatment or disposal of the Proposed Development at the end of its life.

Assessment Methodology

6.3.20. An assessment of the potential impact of the Proposed Development on climate will be undertaken in accordance with IEMA guidance[111].

Determining Effect Significance

6.3.21. The approach to defining likely significant effects will be carried out in three steps, in accordance with IEMA guidance.

[126] *Environment Agency (2025) Decarbonisation Readiness (DR) Guidance. Available at: https://consult.environment-agency.gov.uk/environment-and-business/decarbonisation-readiness-dr-guidance/. Accessed: 15 September 2025.*

6.3.22. The first step is to compare the Proposed Development's GHG emissions in the opening year to the baseline emissions to determine whether there is a net increase or decrease in emissions as a result of the Proposed Development;

6.3.23. The second step is to contextualise the Proposed Development's GHG emissions. This will be done by:

a. Comparing the calculated change in emissions to local and national carbon budgets for context (net-zero aligned carbon budgets for the UK115 and for Buckinghamshire[127]); and

b. Benchmarking the calculated emissions against those of other nationally significant infrastructure projects, to evaluate the GHG emissions of the Proposed Development against similar projects.

6.3.24. The third step applies expert judgment on the significance of those emissions taking into account the changes in emissions, their contribution to relevant carbon budgets, their consistency with relevant policy, and an evaluation of the environmental measures proposed to avoid, reduce and compensate carbon emissions.

6.3.25. The level of significance will be taken using the criteria as defined in IEMA guidance (see Table 24 below), in combination with professional judgement.

Table 24 Significance Criteria for GHG Impact Assessment

Rating	Description	Criteria to Determine Significance of Net GHG Emissions
Major Adverse	A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero.	A project's net GHG impacts are: a. Not mitigated or are only compliant with do-minimum standards set through regulation; and b. Do not provide further reductions required by existing local and national policy for projects of this type.
Moderate Adverse	A project with moderate adverse effects falls short of fully contributing to the UK's trajectory towards net zero.	A project's net GHG impacts are: a. Partially mitigated; and b. May partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national policy goals for projects of this type.
Minor Adverse	A project with minor adverse effects is fully in line with measures necessary to achieve the UK's trajectory towards net zero.	A project's net GHG impacts are: a. Fully consistent with applicable existing and emerging policy requirements; and b. In line with good practice design standards for projects of this type.
Negligible	A project with negligible effects provides GHG performance that is well 'ahead of the curve' for the trajectory towards net zero and has minimal residual emissions.	A project's net GHG impacts are: a. Reduced through measures that go well beyond existing and emerging policy; and b. Better than good practice design standards for projects of this type, such that radical decarbonisation or net zero is achieved well before 2050.
Beneficial	A project with beneficial effects substantially exceeds net zero	A project's net GHG impacts are:

[127] *Logika Group (2025) Local Authority Carbon Budget Tool. Available at: https://www.agconsultants.co.uk/CMSPages/GetFile.aspx?guid=5404875c-6eba-444e-bcd8-2cfc6eca29df. Accessed: 15 September 2025.*

Rating	Description	Criteria to Determine Significance of Net GHG Emissions
	requirements with a positive climate impact.	a. Below zero; and b. It causes a reduction in atmospheric ghg concentrations, whether directly or indirectly, compared to the without-project baseline.

6.3.26. As all carbon emissions have the potential to affect climate change, it is important to assess the effect of the Proposed Development on climate change as a result of carbon emissions from the construction, operational and decommissioning phases together. The GHG assessment will therefore be primarily based on the net effects of all construction, operational and decommissioning phase emissions. The significance of effects for individual emissions sources will not be considered. This is in line with IEMA guidance[111].

Enabling and Construction

6.3.27. The embodied carbon from construction will be calculated to account for carbon emissions arising from the manufacture and production of construction materials. The emissions assessed are "cradle to gate" emissions (i.e. carbon emissions from the extraction of raw materials through to finished construction products). Embodied carbon emissions will be calculated using a range of sources including the University of Bath Inventory of Carbon and Energy (ICE)[128], product Environmental Performance Declarations (EPDs)[129], and published lifecycle assessment reports and research where relevant. Where construction materials are unknown, embodied emissions will be calculated based on estimates from building dimensions and embodied carbon benchmarks for data centre and energy centre developments.

6.3.28. Carbon emissions from electricity and fuel use during construction will be estimated based on predicted construction phase electricity consumption and fuel usage (from plant, machinery and site offices), using the latest available carbon emissions factors published by the Department for Energy Security and Net Zero (DESNZ)[130].

6.3.29. Carbon emissions from transport during construction will be calculated using carbon factors for transport modes derived from the Department for Transport's (DfT's) WebTAG data book[131] and DESNZ.

6.3.30. Methane and other landfill gas emissions from excavation and the potential disposal of excavated waste within the closed modern landfill cells within the Wider Ownership Area, should this option be required, will be estimated based on data provided by the land operator.

6.3.31. Emissions from waste generated and water consumed during construction of the Proposed Development will be calculated where data is available, using published emissions factors from a recognised database (e.g. DESNZ, Climatiq, EcoInvent, etc.). Note that emissions from these sources are expected to be minimal, and, given that IEMA guidance allows for emission sources that contribute less than 1% of total emissions to be excluded from the assessment, will not significantly influence the results of the GHG assessment.

[128] *Circular Ecology (2024) ICE Database Advanced V4.0 – Dec 2024 Available: https://circularecology.com/embodied-carbon-footprint-database.html. Accessed: 15 September 2025.*
[129] *For example, from https://www.environdec.com/library. Accessed: 15 September 2025.*
[130] *DESNZ (2025) Greenhouse gas reporting: conversion factors 2025. Available: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2025. Accessed: 15 September 2025.*
[131] *DfT (2025) TAG data book May 2025 v2.01. Available: https://www.gov.uk/government/publications/tag-data-book Accessed: 15 September 2025.*

Operation and Maintenance

6.3.32. Carbon emissions from transport during operation will be calculated using carbon factors for transport modes derived from DfT's WebTAG data book and DESNZ.

6.3.33. Carbon emissions associated with the use, repair, maintenance and replacement of components of the Proposed Development during its operational lifetime will be calculated using approaches tailored to the information available at the time of writing of the ES, in accordance with RICS guidance[117] taking account of the anticipated lifetime and replacement frequency of key components of the Proposed Development.

6.3.34. Carbon emissions for combustion of natural gas in the on-site Energy Centre and diesel on the emergency backup generators (of the data centres) will be calculated using emissions factors obtained from DESNZ. Fuel consumption will be calculated based on the scale and operational envelope of the Energy Centre and back-up generators. Carbon emissions from diesel use and production, and natural gas production (i.e. WTT for fuels) will be taken from DESNZ GHG conversion factors.

6.3.35. Emissions from water consumed by the operation of the data centres during operation will be calculated using predicted water consumption data from the design team and applying emissions factors for water supply and treatment available from DESNZ. The Proposed Development plans to primarily use air cooling systems for the data halls and therefore water consumption will be for drinking, sanitation, cleaning and fire safety.

6.3.36. Where appropriate lifetime emissions will be calculated taking account of forecast decarbonisation of key emissions sources. Decarbonisation forecasts will be based on published Government data and trajectories as part of the suite of strategies linked to the UK's net zero carbon commitments.

Decommissioning

6.3.37. Carbon emissions from deconstruction of the Proposed Development will be calculated for deconstruction site activities (fuel and energy use), decommissioning transport (including export of waste and staff travel), and waste recycling, treatment and disposal.

6.3.38. Emissions will be calculated using data on the duration of decommissioning works, estimated staff numbers and energy and fuel requirements, and mass of materials and components exported from the Proposed Development.

6.3.39. Given the Proposed Development is anticipated to be decommissioned many years in the future, the assessment of emissions from decommissioning will take account of expected decarbonisation in the UK economy during the lifetime of the Proposed Development.

Assumptions

6.3.40. It is necessary to make a number of assumptions when carrying out a GHG assessment. Assumptions made will seek to reflect a 'realistic worst-case' scenario, and will be fully documented and justified in the ES Chapter. Key assumptions are likely to include:

a. The quantity and type of materials used in the data hall buildings, the data centre technology, in the Energy Centre and back-up generators;

b. The timing and scope of changes in the Proposed Development relating to decarbonisation (for example; data halls coming online, partial- or full- replacement of natural gas with hydrogen as a fuel source. The scope of this will be subject to the confirmation of the appropriate decarbonisation strategy, in accordance with the forthcoming changes to the Permitting Regulations);

c. Transport distances and means to transport materials and workers to the Site;

d. The number and activity of Site plant and equipment during construction;

e. The rate of future decarbonisation of transport (assumptions will be made in line with the Department for Transport's (DfT's) WebTAG data book);

f. Repair and replacement rates;

g. Annual electricity demand and production;

h. Decommissioning vehicles and staff transport volumes, distances and means, and on-Site machinery use; and

i. End of Life treatment of decommissioned materials.

Mitigation

6.3.41. The GHG assessment will consider and help develop mitigation and carbon management measures delivered as part of the Proposed Development. These will be set out in the ES. This will include measures to minimise fossil-fuel based energy use, as these emissions are likely to represent the largest contribution of the Proposed Development's lifecycle carbon footprint.

6.3.42. A key component of mitigation relevant to the GHG assessment will be to set out the decarbonisation readiness of the proposed Energy Centre, in accordance with the requirements of EN-1[78] and EN-2[79]. This will require the Proposed Development to demonstrate the ability in the future to convert to a hydrogen-readiness capability, as part of the DCO application. The addition of decarbonisation measures will be quantified in the lifecycle footprint GHG assessment of the Proposed Development. It is not anticipated these will be in place from commencement of operation, but will come online during the Proposed Development's lifetime. Any assumptions made will be fully documented in the ES, with justification. A sensitivity analysis may be undertaken to assess the impact of assumptions on the GHG assessment results.

6.3.43. Consideration will be paid to the opportunity to introduce mitigation measures that will help to avoid or reduce the potential for an adverse significant effect to occur. In accordance with Schedule 4(7) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the ES will be based on an EIA mitigation hierarchy which seeks to avoid, prevent, reduce and offset (where appropriate) likely significant effects. Specific environmental measures relevant to GHG emissions will be identified and will be considered as part of the assessment (i.e. the assessment of likely significant effects will be undertaken with the inclusion of the embedded mitigation measures, as these measures will form part of the Proposed Development).

6.3.44. In addition to direct energy-related emissions mitigation measures, other mitigation measures will be developed to include:

a. Sourcing materials with lower embodied energy, by using information, for example, from Environmental Product Declarations (EPDs);

b. Designing the Proposed Development and selecting construction materials designed for durability in order to reduce repair, maintenance and refurbishment emissions;

c. Designing the Proposed Development to maximise energy efficiency and minimise operational energy use;

d. Using energy efficient machinery in construction operations;

e. Maximising passive heating and cooling, using best available design practices and seeking opportunities to utilise waste heat generated by the Proposed Development; and

f. Enhancing greenspace and planting within the Site boundary, to maximise carbon sequestration from soil carbon and organic matter.

6.3.45. It is anticipated that measures to minimise GHG emissions will be included within management plans to be secured by Development Consent Order requirements, and through the Environment Agency's permitting regime.

Impacts to be Scoped Out

6.3.46. In accordance with IEMA guidance, minor GHG emissions sources may be scoped out of the assessment, provided they would contribute less than 1% of the Proposed Development's lifetime GHG emissions. Any such exclusions will be clearly presented and justified in the ES Chapter.

Summary

6.3.47. All GHG emissions across the lifetime of the Proposed Development: throughout the construction works, as a result of the completed development, and from decommissioning, are scoped into the assessment, with the provision that minor emission sources that contribute less than 1% of lifetime GHG emissions may be scoped out (with justification).

Part B: CCRA Assessment

Baseline Conditions

Study Area

6.3.48. The study area for the CCRA assessment, unlike other disciplines, focuses on the impact that climate change will have on the Proposed Development (as opposed to the impact of the Proposed Development on the environment). The study area is, therefore, the Site, split into its constituent parts (receptors, as identified in the *Receptors* section below).

Current Baseline Conditions

6.3.49. The current baseline for the CCRA assessment is the current climate at the Site. Historic climate data has been obtained from the Met Office website, recorded by the closest Met Office station to the Site which is the Heathrow Station, approximately 12 km south of the Site. The current flood risk climate hazards for the Site have been identified based on the Flood Risk Assessment[132].

6.3.50. Historic climate data for the 30-year periods of 1981-2010 and 1991-2020 (the standard baseline for climate data[118]), are summarised in Table 25 below.

Table 25 Historic Climate Data Summary

Climate Factor	Month (1981-2010)	Value	Month (1991-2020)	Value
Warmest month on average (Average daily mean temp °C)	Jul	16.89	Jul	17.09
Coldest month on average (Average daily mean temp °C)	Jan	4.32	Jan	4.62
Mean annual rainfall levels (mm)	-	834.33	-	833.96
Wettest month on average (Average monthly rainfall) (mm)	Dec	86.72	Dec	86.86
Driest month on average (Average monthly rainfall) (mm)	May	53.83	May	54.50

6.3.51. When comparing the 30-year climate averages between 1981-2010 and 1991-2020, there are small temperature increases for the warmest and coldest month. Rainfall levels have remained largely unchanged.

6.3.52. The Met Office historic 10-year averages for Heathrow station identify gradual warming in both the winter and summer periods between 1955 and 2024, with an increase in winter average monthly rainfall. Information on average daily mean temperatures (°C) and mean monthly rainfall (mm) is summarised in Table 26 below.

[132] *Terrell, 2025, SDC M40 Campus – Flood Risk Assessment (Stage 1)*

Table 26 Historic 10-year Averages for Temperature and Rainfall at Heathrow station

Decade	Mean Daily Average Temperatures (°C)		Mean Monthly Rainfall (mm)	
	Winter (Oct-Mar)	Summer (Apr-Sep)	Winter (Oct-Mar)	Summer (Apr-Sep)
1955-1964	6.07	14.50	48.59	47.70
1965-1974	6.60	14.34	49.79	56.60
1975-1984	6.65	14.74	54.14	46.63
1985-1994	7.03	14.9	48.75	47.18
1995-2004	7.67	15.72	56.19	46.45
2005-2014	7.59	15.82	57.33	47.15
2015-2024	8.28	16.34	58.27	47.84

6.3.53. There has been a significant human influence on the observed warming in the UK annual temperature since 1950[133]. Statistical results from extreme value analysis suggest that the UK daily maximum and minimum temperature extremes have increased by just over 1°C since the 1950s, and that heavy seasonal and annual rainfall events have also increased.

6.3.54. Table 27 below sets out the current understanding of climate hazards within the Site. These will be updated in the ES chapter, based on other technical studies such as the Flood Risk Assessment that will be developed as a standalone report.

Table 27 Current Climate Change Hazards

Climate Hazard	Current Baseline
Fluvial Flooding	The Site is located within Flood Zone 1, meaning that there is a low probability of flooding from fluvial and tidal sources (defined as a less than 1 in 1,000 annual probability of river or sea flooding).
Pluvial (Surface Water Flooding)	The Flood Risk Assessment identifies medium to high risk of surface water flooding at localised low spots within the Proposed Development. This can be mitigated through appropriate drainage design.
Groundwater Flooding	The Proposed Development area primarily comprises of freely draining soils draining to local groundwater and rivers, with some slowly permeable soil with impeded drainage to stream network. Groundwater in the area is at shallow depth. There is low groundwater flood risk.
Drought	The Environment Agency has classified the Site in an area of serious water stress and susceptible to drought[134]. As such, Thames Water operate a Drought Plan[135] which improves the resilience of the area to periods of drought, by setting out measures to maintain customer water supplies in the event of drought.
Extreme Weather Events	Buckinghamshire is susceptible to winter storms (typically winds and rain) and summer heatwaves in recent years. Severe winter snow and ice events are infrequent.

Future Baseline Conditions

6.3.55. Baseline conditions have been defined by potential climate risks identified in the UK's Third Climate Change Risk Assessment[120] and the Key Climate Projections: Headline Findings. These are based on the 2018 UK climate projection dataset (UKCP18)[119].

6.3.56. Table 28 below outlines the future climate projections for Buckinghamshire, using UKCP18 RCP 8.5 projections (50th percentile) relative to the 1981 – 2000 baseline. The high emissions scenario was used to adopt a 'worst case' estimate of climate projections.

[133] *World Bank Group (2025) Climate Change Knowledge Portal. Available at: https://climateknowledgeportal.worldbank.org/country/united-kingdom/era5-historical (accessed 24 October 2025)*
[134] *Environment Agency (2021) Water stressed areas – final classification 2021. Available at: Water stressed areas – 2021 classification - GOV.UK. Accessed: 13 November 2025.*
[135] *Thames water (2022) Thames Water Drought Plan 2022. Available: https://www.thameswater.co.uk/about-us/regulation/drought-plan. Accessed: 13 November 2025.*

Table 28 Current Projections for Buckinghamshire Based on UKCP18-RCP 8.5 (50th Percentile)

Climate Variable	2020-2039	2040-2059	2060-2079
mean annual temperature (°C)	+1.1	+1.9	+3
mean winter temperature (°C)	+0.9	+1.6	+2.4
mean summer temperature (°C)	+1.4	+2.5	+3.9
mean winter precipitation (%)	+8	+13	+19
mean summer precipitation (%)	-6	-17	-25

6.3.57. It can be seen from Table 28 above that the future climate at the Site in both the construction and operational periods is likely to have warmer, wetter winters, and hotter, drier summers. These will increase the potential for a range of events such as heatwaves, drought, and flooding linked to high winter rainfall.

6.3.58. Extreme weather events such as storms are also expected to increase in severity and frequency over time, and are therefore considered relevant for the Proposed Development. Climate change predictions indicate increasingly erratic weather patterns that are likely to lead to extreme weather events. These include heavy rainfall events which will likely increase the risk to the Site from pluvial flooding, and high wind and storm events.

Receptors

Relevant receptors of the Proposed Development differ for construction and operation. Note that, due to the anticipated phased nature of the Proposed Development, the construction and operation phases could overlap, but the activities and their receptors are identified and evaluated separately. The key receptors identified for inclusion in the CCRA assessment are:

Enabling and Construction

a. Construction staff and workers;
b. Construction equipment, machinery and materials;
c. Construction site access roads and compounds; and
d. Habitats and biodiversity.

Complete and Operational

e. Site staff, contractors and visitors;
f. The Proposed Development and associated infrastructure; and
g. Habitats and biodiversity.

Decommissioning

h. Decommissioning staff and workers;
i. Decommissioning equipment, machinery and materials;
j. Site access roads and compounds; and
k. Habitats and biodiversity.

Establishing Receptor Sensitivity

6.3.59. IEMA guidance describes that the assessment should consider the susceptibility and vulnerability of the receptors to future climate change. The guidance provides examples of low, moderate and high susceptibility and vulnerability, but is not prescriptive in defining a scale for overall receptor sensitivity, which is determined with professional judgement. For the purposes of the CCRA assessment, all receptors will be considered to be of high sensitivity, which is a worst-case.

Assessment of Effects

6.3.60. The ES chapter will assess:

a. The potential for climate change to impact the Proposed Development throughout the enabling and construction works, during operation, and decommissioning works;

b. The significance of the identified impacts of climate change on the Proposed Development;

c. Any required mitigation or monitoring to address any likely significant adverse effects; and

d. The potential for cumulative effects in relation to climate change with other environmental topics (In-Combination Climate Change Impact assessment).

6.3.61. The assessment of significance takes embedded mitigation adopted by the Proposed Development into account.

6.3.62. The climate hazards relevant to and considered in the assessment are as follows:

a. Surface Water Flooding;

b. Extreme weather (wind and storms);

c. Heat waves (inc. temperature increases);

d. Drought (inc. reduced summer rainfall), and

e. Increased precipitation

6.3.63. The CCRA will consider the potential resilience risks identified in the 2025 parliamentary research briefing on data centres, planning policy, sustainability and resilience[122]. These risks are:

a. Water stress (water supply issues for cooling systems, noting that the Proposed Development will use air, not water, for cooling);

b. Heatwaves (increased power demand, service disruptions, equipment overheating, poor staff conditions, reduced equipment lifetime); and

c. Temperature variability (stress on components and hardware, reduced efficiency and equipment lifetime).

6.3.64. The CCRA assessment will assess the potential impacts and effects during the construction, operational, and decommissioning phases.

Assessment Methodology

6.3.65. The assessment of CCRA of the Proposed Development to future changes in climate will be undertaken in accordance with the methodology described in IEMA guidance.

6.3.66. The CCRA assessment will establish potential climate risks and consider the significance of that risk through an assessment of likelihood and consequence, taking into account embedded design measures adopted by the Proposed Development.

6.3.67. The assessment will set out the measures incorporated into the design of the Proposed Development that will ensure the Proposed Development is resilient to future climate risks such as increased extreme weather events and warmer summer temperatures.

Establishing the Baseline

6.3.68. Note that the baseline current and future climate conditions remain unchanged, regardless of whether the Proposed Development is built. Baseline conditions are therefore as established in the *Baseline* Section above.

Determining Effect Significance

6.3.69. A systematic risk assessment of climate risks listed in the *Assessment of Effects* section above will be undertaken from the design of the Proposed Development to identify the impact of expected extreme

weather conditions arising from climate change on the Proposed Development, during construction, operation and decommissioning of the Proposed Development. This involves the identification of potential impacts of each climate risk on identified receptors. This is undertaken using professional judgement, with reference to relevant supporting reports where appropriate (e.g. Flood Risk Assessment, Design and Access Statement, architectural designs, landscape strategy etc.), and identifies the design measures to mitigate the impacts.

6.3.70. The significance of each hazard (using definitions in the "Significance of Effect" table below) will be evaluated based on scoring the likely consequence and likelihood of that hazard arising, using a five-point scale described in Table 29 and Table 30 below. The scoring of likelihood and consequence has been developed based on examples and case studies in IEMA Guidance and applying professional judgement.

Table 29 Qualitative Description of Consequence

Measure of Consequence	Description
Very Small	No damage to the Proposed Development, minimal adverse effects on health, safety and the environment or financial loss. Little change to service and disruption lasting less than one day.
Small	Localised disruption or loss of service. No permanent damage, minor restoration work required: disruption lasting less than one day. Small financial losses and/or slight adverse health or environmental effects.
Medium	Limited damage and loss of service with damage recoverable by maintenance or minor repair. Disruption lasting more than one day but less than one week. Moderate financial losses. Adverse effects on health or the environment.
Large	Extensive damage and severe loss of service. Disruption lasting more than one week. Early renewal of 50-90% of the Proposed Development. Permanent physical injuries and/or fatalities. Major financial loss. Significant effect on the environment, requiring remediation.
Very Large	Permanent damage and complete loss of service. Disruption lasting more than one week. Early renewal of the Proposed Development >90%. Severe health effects or fatalities. Extreme financial loss. Very significant loss to the environment requiring remediation and restoration.

Table 30 Qualitative Description of Likelihood

Measure of Likelihood	Description
Very High	The event occurs multiple times during the lifetime of the Proposed Development e.g., approximately annually.
High	The event occurs several times (approximately 12 events) during the lifetime of the Proposed Development.
Medium	The event occurs limited times (approximately 4 events) during the lifetime of the Proposed Development.
Low	The event occurs once during the lifetime of the Proposed Development.
Very Low	The event may occur once during the lifetime of the Proposed Development or may not occur at all.

6.3.71. These determinants are combined to assess the magnitude of effects on receptors, as shown in Table 31 below. The assessment is qualitative and will use expert judgement based on knowledge of similar schemes, engagement with the wider Project Team, and a review of relevant literature.

Table 31 Magnitude of Effects Matrix

Likelihood of Hazard Occurring	Consequence of Hazard Occurring				
	Very Small	Small	Medium	Large	Very Large
Very High	Minor	Moderate	Moderate	Major	Major
High	Negligible	Minor	Moderate	Major	Major
Medium	Negligible	Minor	Moderate	Moderate	Major
Low	Negligible	Negligible	Minor	Moderate	Moderate
Very Low	Negligible	Negligible	Negligible	Minor	Minor

6.3.72. Significant effects are determined as follows: major and moderate effects are considered to be significant, and negligible and minor effects are considered not significant.

6.3.73. The assessment of significance follows the approach outlined in IEMA Guidance and takes embedded mitigation / adaptation into account. Embedded mitigation / adaptation will be identified through consultation with the Project Team.

6.3.74. As a further step, the CCRA assessment will identify additional mitigation (as required) to address any significant effects and evaluate residual risks.

Assumptions

6.3.75. The CCRA assessment will outline the potential impacts of climate change on the Proposed Development based on a qualitative assessment and professional judgement using knowledge of similar schemes.

6.3.76. The UKCP18 projections are the most up-to-date projections of climate change for the UK, and provide probabilistic projections of future climate for a range of emissions scenarios. Future GHGs emissions, and the resulting pathway, is uncertain. A precautionary approach, consistent with IEMA guidance will therefore be adopted by selecting a high emissions scenario (RCP8.5) for the 2060-2079 period, which offers the longest-term projections into the Proposed Development's potential operational lifetime.

6.3.77. The embedded adaptation measures incorporated within the Proposed Development will be based on information provided by the Applicant, project design team and subject matter experts. The determination of significance will be undertaken under the assumption that industry design standards will be adhered to where detailed design information is unavailable.

In-Combination Climate Change Impact Assessment

6.3.78. As part of the CCRA assessment piece, an In-Combination Climate Change Impact (ICCI) assessment will also be undertaken and presented within the ES. This will assess the extent to which potential future climate change alters the environmental effects assessed by other EIA disciplines such as (but not limited to) flood risk, air quality, and noise.

Mitigation

6.3.79. A comprehensive list of mitigation measures will be developed, and evaluated in terms of risk to receptors, as part of the climate resilience assessment. Example mitigation measures include:

a. Buildings and site infrastructure that are resilient by design;
b. Use of backup generators to ensure continuity of energy supply;
c. Ensuring sufficient site drainage and use of SuDS;
d. Proactive management and maintenance and regular inspection of drainage systems;
e. Ensuring cooling systems are designed to withstand heatwaves and higher future average temperatures; and
f. Development of environmental management plans such as a Construction Environmental Management Plan, setting out measures to reduce impacts and improve resilience of assets, works and site staff to future climate change.

Impacts to be Scoped Out

6.3.80. According to UKCP18 projections, a decrease in both falling and lying snow across the UK relative to the 1981 – 2010 baseline is expected by the end of the century. As such, increased snow and ice is not considered a relevant climate hazard for the Proposed Development.

Summary

6.3.81. Climate Change Resilience and Adaptation is scoped into the EIA. The climate hazards considered in the assessment are:

a. Surface Water Flooding;
b. Extreme weather (wind and storms);
c. Heatwaves (inc. temperature increases);
d. Drought (inc. reduced summer rainfall), and
e. Increased precipitation.

6.3.82. These will be assessed for construction, operation and decommissioning of the Proposed Development.

6.4. ECOLOGY AND BIODIVERSITY

Introduction

6.4.1. It is considered that there is the potential for likely significant effects relating to ecology and so this topic shall be '**scoped in**' to the EIA. The ecological assessment will be undertaken by Bioscan UK Ltd.

Policy, Legislation and Guidance

6.4.2. Legislation considered as part of the assessment will include:

a. The Wildlife and Countryside Act 1981 (as amended);
b. The Conservation of Habitats and Species Regulations 2017 (as amended);
c. Infrastructure Planning (Environmental Impact Assessment (EIA)) Regulations 2017;
d. The Natural Environment and Rural Communities (NERC) Act 2006;
e. The Environment Act 2021;
f. The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024;
g. The Management of Hedgerows (England) Regulations 2024;
h. Wild Mammals (Protection) Act 1996;
i. Countryside and Rights of Way Act 2000 ('the CRoW Act');
j. The Protection of Badgers Act 1992;
k. The Hedgerows Regulations 1997; and
l. The Invasive Alien Species (Enforcement and Permitting) Order 2019.

6.4.3. National planning policy to be considered will include:

a. Overarching National Policy Statement (NPS) for Energy (EN-1)[136]
b. NPS for Natural Gas Electricity Generating Infrastructure (EN-2)[137];
c. NPS for Electricity Networks Infrastructure (EN-5)[138]; and
d. National Planning Policy Framework (NPPF) 2025[139].

6.4.4. Local planning policy to be considered will include:

a. South Bucks District Council. (1999). *South Bucks Local Plan*. South Bucks District Council;
b. South Bucks District Council. (2011). *South Bucks Core Strategy*. South Bucks District Council;
c. Buckinghamshire Council. (2022). Buckinghamshire Council Biodiversity Net Gain Supplementary Planning Document (SPD). Buckinghamshire Council;
d. Buckinghamshire Council. (2023). Interim Strategic Significance & Spatial Risk Guidance for Biodiversity Net Gain in Buckinghamshire Council's Local Planning Authority Area. Buckinghamshire Council;

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[136] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1). Available: https://assets.publishing.service.gov.uk/media/695d1015f41883f4e50ed9ab/overarching-national-policy-statement-for-energy-en-1-web-accessible.pdf Accessed: 15 January 2026.*

[137] *DESNZ (2024) National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2). Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147381/NPS_EN-2.pdf. Accessed: 15 September 2025.*

[138] *DESNZ (2026) National Policy Statement for Electricity Networks Infrastructure (EN-5). Availablehttps://assets.publishing.service.gov.uk/media/695d12e1b5c46330350ed9a1/national-policy-statement-for-electricity-networks-infrastructure-en-5-web-accessible.pdf. Accessed: 15 January 2026.*

[139] *Ministry of Housing, Communities & Local Government (2024) National Planning Policy Framework. Available: https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf. Accessed: 15 September 2025.*

e. Buckinghamshire Local Plan (under development);[140] and

f. Buckinghamshire Local Nature Recovery Strategy (under development).[141]

6.4.5. Technical guidance for ecological survey and assessment will be considered, to include:

a. Department for Levelling Up, Housing and Communities (2016); Planning Practice Guidance: Natural Environment[142];

b. Department for Levelling Up, Housing and Communities (2016); Planning Practice Guidance: Biodiversity net gain[143];

c. CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management (CIEEM), Winchester[144];

d. CIEEM (2024). Guidelines for Ecological Impact Assessment, Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management (CIEEM), Winchester[145];

e. CIEEM (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. Chartered Institute of Ecology and Environmental Management (CIEEM), Winchester[146];

f. UKHab Ltd (2023). UK Habitat Classification Version 2.0[147];

g. Department for Environment, Food & Rural Affairs (Defra; 21 July 2025). *Guidance: Statutory biodiversity metric tools and guides[148];*

h. Department for Environment, Food & Rural Affairs (Defra; 29 November 2023). *Guidance: Air emissions risk assessment for your environmental permit[149];*

i. A.M. Gurnell et al (2022). A Guide to Assessing River Condition: Part of the Rivers and Streams Component of the Biodiversity Net Gain Metric. Environment Agency & Cartographer Studios[150];

j. A.M. Gurnell & L.J. Shuker (2022). The MoRPh Survey Technical Reference Manual. 2022 version. Environment Agency & Cartographer Studios[151];

k. BRIG (ed. Ant Maddock) (2008). UK Biodiversity Action Plan Priority Habitat Descriptions[152];

l. UK Government (2022). [online]. Ancient woodland, ancient trees and veteran trees: advice for making planning decisions[153];

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[140] *This is expected to be formally adopted in late 2027, and as such the draft plan will be considered for context only as it carries limited planning weight.*

[141] *This is expected to be adopted in 2025/2026, and is therefore likely to be a material consideration of this application.*

[142] *Available at: https://www.gov.uk/guidance/natural-environment. Accessed: 1 August 2025.*

[143] *Available at: https://www.gov.uk/guidance/biodiversity-net-gain. Accessed: 1 August 2025.*

[144] *Available at: https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf. Accessed: 1 August 2025.*

[145] *Available at: https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/. Accessed: 1 August 2025.*

[146] *Available at: https://cieem.net/wp-content/uploads/2016/03/Guidelines-for-Accessing-and-Using-Biodiversity-Data-March-2020.pdf. Accessed: 1 August 2025.*

[147] *Available at: https://www.ukhab.org. Accessed: 1 August 2025.*

[148] *Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides. Accessed: 1 August 2025.*

[149] *Available at: https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit. Accessed: 1 August 2025.*

[150] *Available at: https://docs.modularriversurvey.org/. Accessed: 1 August 2025.*

[151] *Available at: https://docs.modularriversurvey.org/. Accessed: 1 August 2025.*

[152] *Available at: https://data.jncc.gov.uk/data/2728792c-c8c6-4b8c-9ccd-a908cb0f1432/UKBAP-PriorityHabitatDescriptions-Rev-2011.pdf. Accessed: 1 August 2025.*

[153] *Available at: https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions. Accessed: 1 August 2025.*

m. UK Government (2013; updated April 2025). Protected species and development: advice for local planning authorities[154];

n. D. A. Ratcliffe (1977). A Nature Conservation Review: The Selection of Biological sites of National Importance to Nature Conservation in Britain. Cambridge University Press;

o. Joint Nature Conservation Committee (JNCC; 2013). Guidelines for the Selection of Biological sites of Special Scientific Interest (SSSIs)[155];

p. UK Government (2016, updated 09 June 2025). Planning Practice Guidance: Natural environment. What are the Standard Criteria for Local Wildlife Sites?[156];

q. Thames Valley Environmental Records Centre (TVERC) & Buckinghamshire & Milton Keynes Environmental Records Centre (BMERC). (no date). Local Wildlife Sites (LWS) Selection Criteria for Berkshire, Buckinghamshire and Oxfordshire. V.7;

r. Buckinghamshire and Milton Keynes Natural Environment Partnership (no date). Forward to 2030: Biodiversity Action Pl2an More, Bigger, Better and More Joined-up across Buckinghamshire and Milton Keynes;

s. Alastair Hotchkiss, 2019, Assessing air pollution impacts on ancient woodland – ammonia, Woodland Trust Technical Advice Note No.1;

t. Harris, Cresswell & Jefferies (1989). *Surveying Badgers*. Mammal Society;

u. English Nature (2002). *Badgers and development*. English Nature.

v. Collins (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London;

w. Wells, D., Chanin, P. & Gubert, L. (2025). *Hazel Dormouse Mitigation Handbook*. The Mammal Society;

x. P Chanin (2003). *Ecology of the European Otter.* Conserving Natura 2000 Rivers. Ecology Series 10. English Nature;

y. Natural England (January 2022). Otters: advice for making planning decisions[157];

z. Strachan, Moorhouse & Gelling (2011). *Water Vole Conservation Handbook*, 3rd edition. WildCRU;

aa. M Dean (2021). Water Voles Field Signs and Habitat Assessment: A Practical Guide to Habitat Surveys. Pelagic Publishing;

bb. Dean, Strachan, Gow & Andrews, (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)*. Eds. F Mathews & P Chanin. The Mammal Society, London;

cc. Froglife, (1999). Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10;

dd. Oldham et al. (2001) Evaluating the Suitability of Habitat for the Great Crested Newt. Herpetological Journal 10, pp143-155;

ee. English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature;

ff. Bird Survey Guidelines (2025). *Breeding bird survey methodology*[158];

gg. Bird Survey Guidelines (2025). Non-breeding bird survey methodology[159];

[154] *Available at: https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications. Accessed: 1 August 2025.*
[155] *Available at: https://jncc.gov.uk/our-work/guidelines-for-selection-of-sssis/. Accessed: 1 August 2025.*
[156] *Available at: https://www.gov.uk/guidance/natural-environment#biodiversity-geodiversity-and-ecosystems. Accessed: 1 August 2025.*
[157] *Available at: https://www.gov.uk/guidance/otters-advice-for-making-planning-decisions. Accessed: 13 November 2025.*
[158] *Available at: https://birdsurveyguidelines.org/methods/survey-method/. Accessed: 13 November 2025.*
[159] *Available at: https://birdsurveyguidelines.org/non-breeding-survey-methodology/. Accessed: 13 November 2025.*

hh. English Nature (2005). Organising surveys to determine site quality for invertebrates: A framework guide for ecologists (IN180); and

ii. Natural England (25 October 2023). Invertebrates: advice for making planning decisions[160].

Baseline Conditions

Study Area

6.4.6. Surveys will cover the 'Site', and will be extended over a wider 'Ecological Study Area' that encompasses the Site (as shown in Figure 6) as well as land adjoining it to the northwest and northeast. The Ecological Study Area, represented by the Wider Ownership Area (indicated by a blue line on Figure 1 in **Appendix 1: Figures**), has been included within the assessment to provide a baseline and understand issues with effecting enhancements as part of Biodiversity Net Gain, as well as providing additional ecological context for the Site. Species specific survey will also extend beyond the Site boundary where relevant[161] and where access is permitted, most notably for great crested newt and badger surveys.

Current Baseline Conditions

6.4.7. The Site comprises a landfill site which has ceased operations, dominated by bare ground, occasional ponds, and early successional communities. Some of these habitats are believed to meet the definition of Priority Open Mosaic Habitats on Previously Developed Land. The margins of the Site are more vegetated, being dominated by scrub and woodland, of which some appears planted and other areas self-seeded.

6.4.8. The wider Ecological Study Area comprises a capped landfill, dominated by 'other' neutral grassland and woodland. The majority of the woodland does not appear to be 'long established' i.e. appearing to have been planted within the last 100 years, however a minority appears older, particularly in the north-west of the Ecological Study Area, which includes woodland identified as ancient semi-natural woodland on Natural England's Ancient Woodland Inventory.

6.4.9. The status of the habitats within the Site and Ecological Study Area was confirmed as part of an initial walkover undertaken on 2 June 2025, and ongoing survey work undertaken to date.

6.4.10. There are no statutory designations within the Site or Ecological Study Area. An initial desk study has identified that the closest statutory designated site is Burnham Beeches Special Area of Conservation (SAC), an internationally designated site, which is located 2.0km southwest of the Site.

6.4.11. Habitats within the Site and Ecological Study Area are known to support great crested newt, and have potential suitability for badger, bats (roosting, foraging and commuting), dormouse, water vole, fish, nesting and non-breeding birds, and notable invertebrates.

6.4.12. A programme of ecological survey is currently underway, with the bulk of surveys to be undertaken in 2026. These will include a detailed habitat and botanical survey (with application of the UKHab classification system), with focused botanical survey work undertaken in the optimum botanical survey period for each habitat type (overall, April – September). In addition, species-specific survey (in line with best practice guidance) will be undertaken for the species set out in Table 32 below.

Table 32 Species specific survey scope and timing

Species/taxa	Survey description	Timing	Survey visits
Badger	Searches for setts and other field signs	Winter	1 visit
Bats	Daytime Bat Walkover (DBW)	Anytime	1 visit

[160] *Available at: https://www.gov.uk/guidance/invertebrates-advice-for-making-planning-decisions. Accessed: 13 November 2025.*

[161] *Likely to 30m for badgers and 250m for great crested newts where access is possible and pertinent, as per Natural England (formerly English Nature) guidance.*

Species/taxa	Survey description	Timing	Survey visits
	Preliminary Roost Assessment (PRA) of buildings/structures	Anytime	1 visit
	Ground Level Tree Assessment (GLTA) of pertinent trees and further inspection/survey where necessary	Winter	1 visit
	Nighttime Bat Walkover (NBW)	Spring – Autumn	3 visits covering, one per season
	Automated monitoring	April – October	5 nights of monitoring per month
Dormouse	Presence/absence surveys (nest tubes)	April – November	1 visit per month
	Presence/absence surveys (footprint tunnel)	April – November, running for a minimum of 3 months	Typically fortnightly visits,
Water vole	Habitat suitability assessment and targeted field sign searches. Should suitability for WV be confirmed, a further presence/absence survey will be undertaken	Mid-April to end September	1 visit
Reptiles	Targeted presence/absence refugium-based reptile surveys	April – May and/or September	7 visits
Great crested newt (GCN)	Habitat Suitability Index (HSI) assessment and eDNA sampling of all ponds within the Ecological Study Area and within 250m of the Site (where access permits)	Mid-April to June	1 visit
	If District Level Licensing (DLL) licensing is not pursued, then population size class surveys will also be undertaken for ponds which test positive for GCN eDNA	March - June	6 visits
Birds	Breeding bird surveys utilising territory mapping	March – July/August	6 visits
	Non-breeding bird surveys utilising walkover survey	November – February	4 visits
Invertebrates	Targeted multi-taxa invertebrate survey	April - July	3 visits
Fish	Assessment of suitability of ponds within the Site and Ecological Study Area	Anytime	1 visit

Future Baseline Conditions

6.4.13. Under both existing and pending commitments, the future baseline of the Site would involve the restoration of the existing landfill under an approved restoration plan (Ref: P22-3044_EN_10H) and the pending restoration plan sought for approval as part of the pending Section 73 application (CM/0031/23). This would involve the cessation of all remaining landfilling activities within the Site, the retention of some existing open mosaic habitat and the creation of new areas of scrub and grassland to cap the landfill. Existing ponds at the Site margins would be retained in-situ. The habitats within the Site would also be managed positively for nature.

6.4.14. The wider Ecological Study Area would be retained through ongoing management as a rough grassland pasture. The existing woodland within the Ecological Study Area would gradually mature and connect with woodland areas at the Site margins. Ponds within the Ecological Study Area would be retained in-situ.

6.4.15. The suitability of the Site for the various protected species present is expected to remain the same or increase as part of a future baseline, with the main change being an increase in grassland habitat at the expense of bare ground.

Receptors

6.4.16. Statutory ecological designations within the proximity of the Site and wider Ecological Study Area, including international and national designations within 15km[162] of the Site (as shown on Figure 5), are as follows:

a. Burnham Beeches Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) – Approximately 1.9km southwest of the Site (and Ecological Study Area);

b. Stoke Common SSSI - 2.5km southeast of the Site (and Ecological Study Area);

c. Littleworth Common SSSI – Approximately 3.5km southwest of the Site (3.2km southwest of the Ecological Study Area);

d. Hodgemoor Wood SSSI – 3.4km north of the Site (3.3km north of the Ecological Study Area);

e. Old Rectory Meadows SSSI – 5km east of the Site (4.8km east of the Ecological Study Area);

f. Black Park SSSI - 5km southeast of the Site (4.9km southeast of the Ecological Study Area);

g. Kingcup Meadows and Oldhouse Wood SSSI – 5.4km southeast of the Site (5.3km southeast of the Ecological Study Area);

h. Mid Colne Valley SSSI – 5.5km east of the Site (and 5.4km east of the Ecological Study Area);

i. Gomm Valley SSSI – 6.7km northwest of the Site (and Ecological Study Area);

j. Old Park Wood SSSI – 6.7km northeast of the Site (6.5km northeast of the Ecological Study Area);

k. Cock Marsh SSSI – 7.5km southwest of the Site (and Ecological Study Area);

l. Denham Lock Wood SSSI – 7.5km southeast of the Site (and 7.4km southeast of the Ecological Study Area);

m. Fray's Farm Meadows SSSI – 7.7km east of the Site (and 7.6km east of the Ecological Study Area);

n. Ruislip Woods SSSI – 8.3km east of the Site (8.1km east of the Ecological Study Area);

o. Chiltern Beechwoods SAC and Bisham Woods SSSI – 10km southwest of the Site (and Ecological Study Area);

p. Millfield Wood SSSI – 10.5km northwest of the Site (and Ecological Study Area);

q. Frogmore Meadows SSSI – 10.5km northeast of the Site (and Ecological Study Area);

r. Bray Meadows SSSI – 10.7km southwest of the Site (and 10.6km southwest of the Ecological Study Area);

s. Croxley Common Moor SSSI – 10.7km northeast of the Site (and 10.6km northeast of the Ecological Study Area);

t. Sarrat Bottom SSSI – 11.1km northeast of the Site (and Ecological Study Area);

u. Bray Pennyroyal Field SSSI – 11.5km southwest of the Site (and Ecological Study Area);

v. Whippendell Wood SSSI – 12.7km northeast of the Site (and Ecological Study Area);

w. Windsor Forest and Great Park SAC and SSSI – 12.9km south of the Site (and Ecological Study Area);

x. Chiltern Beechwoods SAC and Naphill Common SSSI – 13km northwest of the Site (and Ecological Study Area);

[162] *As per UK Government guidance. Available at https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit*

y. Southwest London Waterbodies Special Protection Area (SPA) & Ramsar, and Wraysbury No. 1 Gravel Pit SSSI – 13km southeast of the Site (and Ecological Study Area);

z. Southwest London Waterbodies SPA & Ramsar, and Wraysbury Reservoir SSSI – 13.4km southeast of the Site (and Ecological Study Area);

aa. Great Thrift Wood SSSI – 13.7km southwest of the Site (and 13.6km southwest of the Ecological Study Area);

bb. Widdenton Park Wood SSSI – 14km west of the Site (and Ecological Study Area);

cc. Staines Moor SSSI – 14km southeast of the Site (and Ecological Study Area);

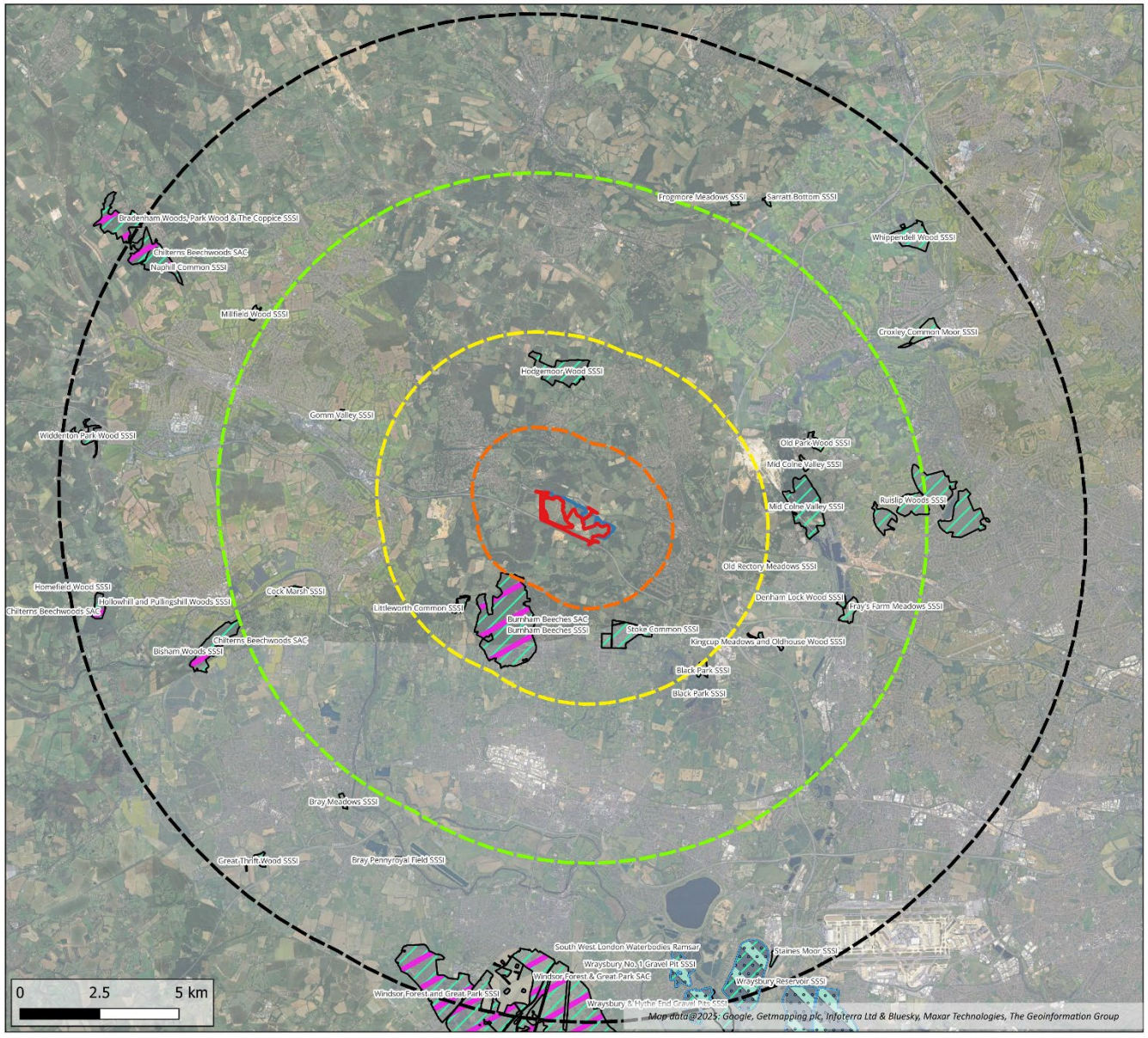
dd. Chiltern Beechwoods SAC and Hollowhill and Pullingshill Woods SSSI – 14km southwest of the Site (and Ecological Study Area);

ee. Southwest London Waterbodies SPA & Ramsar, and Wraysbury & Hythe End Gravel Pits SSSI – 14.4km southeast of the Site (and Ecological Study Area);

ff. Chiltern Beechwoods SAC and Bradenham Woods, Park Wood & The Coppice SSSI – 14.4km northwest of the Site (and Ecological Study Area); and

gg. Homefield Wood – 14.6km southwest of the Site (and Ecological Study Area).

Figure 5 Statutory designated sites within 15km of the Site



Key

- Site boundary
- Study Area
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- Ramsar sites
- 2km site buffer
- 5km site buffer
- 10km site buffer
- 15km site buffer

Title		
Statutory designations within 15km		
Project		Client
SDC - M40		Montagu Evans
Drawing No.	Revision	Project No.
-	-	E2240
Drawn	Checked	Date
OB	DW	October 2025

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6.4.17. Local designations within a 2km radius of the Site (as shown on Figure 6), are:

a. Hedgerley Green Claypits Biological Notification Site (BNS) – Within the southeast portion of the Site;

b. Pightle Field LWS – 0.6km south of the Site (and Ecological Study Area);

c. Church Wood Hedgerley LWS and RSPB reserve – 0.7km south of the Site (and Ecological Study Area);

d. Sutton's Wood LWS – 0.8km southwest of the Site (0.7km southwest of the Ecological Study Area);

e. Grassland and flush near Mount Pleasant Farm – 1.1km south of the Site (and Ecological Study Area);

f. Bower and Burtley Woods Local Wildlife Site (LWS) – 1.1km west of the Site (0.2km west of the Ecological Study Area);

g. Great Legs, Malms Wood and The Ash Beds BNS – 1.3km north of the Site (1km north of the Ecological Study Area);

h. Kiln Wood Hedgerley – 1.4km southwest of the Site (1.3km southwest of the Ecological Study Area);

i. Bulstrode Camp LWS – 1.6km east of the Site (1.2km east of the Ecological Study Area);

j. Dean Wood LWS – 1.7km north of the Site (1.1km north of the Ecological Study Area);

k. Green Lane by The Ash Beds, Layter Green LWS – 1.8km north of the Site (1.6km north of the Ecological Study Area);

l. Gerrards Cross Common LWS – 1.9km east of the Site (1.3km east of the Ecological Study Area);

m. Pickeridge Wood BNS – 1.9km southeast of the Site (and Ecological Study Area);

n. Harehatch Lane Roadside Nature Reserve (RNR) – 2km southwest of the Site (1.8km southwest of the Ecological Study Area);

o. Hanging's and Hollybush Wood LWS – 2km southwest of the Site (1.3km southwest of the Ecological Study Area);

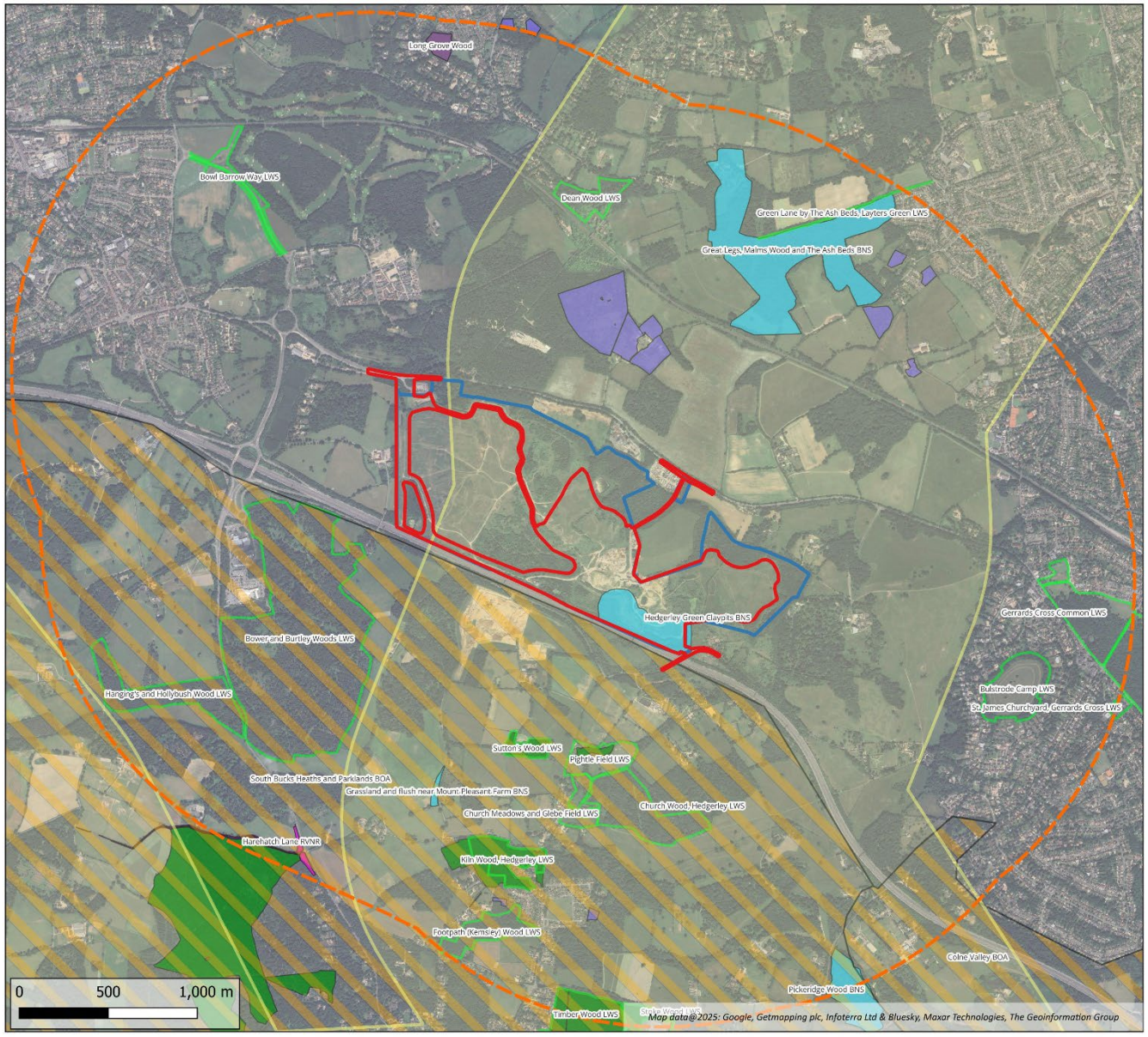
p. Footpath (Kemsley Wood) LWS – 2km south of the Site (and Ecological Study Area);

q. Bowl Barrow Way LWS – 2.3km northwest of the Site (1km northwest of the Ecological Study Area); and

r. Long Grove Wood, Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust Reserve – 2.8km northwest of the Site (1.8km north of the Ecological Study Area).

6.4.18. In addition, due to its sensitivity to air pollution, ancient woodland within 5km of the Site boundary (rather than the 2km stipulated in DEFRA guidance) will be scoped in to this assessment (as shown on Figure 7), in line with Woodland Trust guidance.

Figure 6 Local designations within 2km of the Site



Key

- Site boundary
- Study Area
- 2km site buffer
- B-Lines
- Local Wildlife Sites (LWS)
- Biological Notification Sites (BNS)
- Biodiversity Opportunity Areas (BOA)
- Wildlife Trust Reserve
- Roadside Verge Nature Reserves (RVNR)

Priority habitats

- Lowland mixed deciduous woodland
- Traditional orchard

Title
Non-statutory designations (excluding Ancient Woodland) within 2km

Project	Client
SDC - M40	Montagu Evans

Drawing No.	Revision	Project No.
-	-	E2240

Drawn	Checked	Date
OB	DW	October 2025

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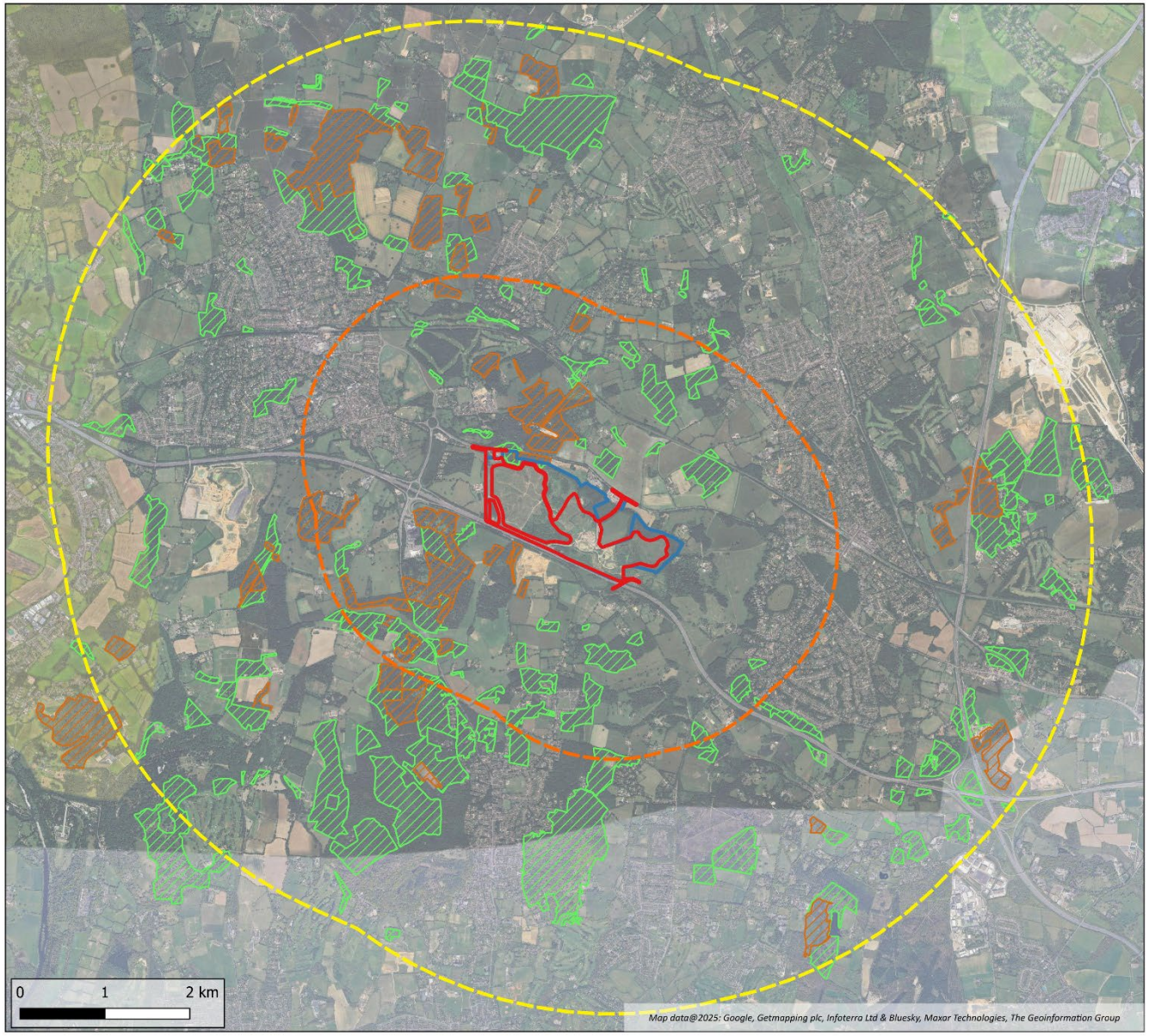
Figure 7 Ancient woodland within 5km of the Site



Key

- Site boundary
- Study Area
- 2km site buffer
- 5km site buffer
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland

Title		
Ancient Woodland within 5km		
Project		Client
SDC - M40		Montagu Evans
Drawing No.	Revision	Project No.
-	-	E2240
Drawn	Checked	Date
OB	DW	October 2025

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6.4.19. Other relevant ecological land use designations:

a. The Site is entirely within a B-Line insect pathway designated by Buglife, which runs from southwest to northeast;

b. South Bucks Heaths and Parklands Biodiversity Opportunity Area (BOA) – 0.06km southwest of the Site (0.03km southwest of the Ecological Study Area); and

c. Colne Valley BOA – 1.7km southeast of the Site (and Ecological Study Area).

6.4.20. Habitats currently identified within the Site:

a. Open mosaic habitats on previously developed land;

b. Lowland mixed deciduous woodland;

c. Wet woodland;

d. Other coniferous woodland;

e. Ponds;

f. Mixed scrub;

g. Willow scrub;

h. Bramble scrub;

i. Other neutral grassland;

j. Tall forbs;

k. Ruderal/ephemeral vegetation;

l. Bare ground; and

m. Developed land; sealed surface.

6.4.21. Habitats within the Ecological Study Area, which have been scoped in due to their potential for off-site ecological enhancement are:

a. Other neutral grassland;

b. Lowland mixed deciduous woodland (of which a minority is included in Natural England's Ancient Woodland Inventory);

c. Other Scot's pine woodland;

d. Ponds; and

e. Bramble scrub.

6.4.22. Protected species scoped in include:

a. Badger;

b. Bats;

c. Dormouse;

d. Water vole;

e. Nesting birds;

f. Great crested newt; and

g. Reptiles.

6.4.23. Other species scoped in include non-breeding (wintering) birds, fish and invertebrates. The status of other notable species such as notable plants will be assessed following an analysis of habitat suitability and desk study records.

Defining Scales of Importance/Value

6.4.24. Scales of comparison varying from international to the context of the local area may be used to define the measure of importance (or value) attached to individual features, thereby setting the appropriate frame of reference for any significant impacts acting upon them. In this assessment the geographic frames of reference presented in Table 33 below are used, as modified slightly from the CIEEM Guidelines.

Table 33 Geographic frames of reference

Level/Scale of Importance	Criteria	Example
International and European	High importance and rarity, international scale and limited potential for substitution	Internationally designated sites (e.g. SACs, SPAs and Ramsar Sites, candidate SACs, potential SPAs, proposed Ramsar Sites and Biosphere reserves), including features or populations of species integral to the maintenance of the 'integrity' of such designations; Internationally significant area/quantity of a habitat listed in Annex I of the Habitats Directive, or smaller areas of such habitat where they are essential to maintain the viability of a larger whole; or Internationally significant population (e.g. >1% of western European population) of a species listed in Annex IV of the Habitats Directive or Annex I of the Birds Directive.
National	High importance and rarity, national scale, or regional scale with limited potential for substitution	Nationally designated sites (e.g. SSSIs and National Nature Reserves,); Regionally important sites with limited substitution possibilities; Nationally significant (e.g. >1% of UK or English resource) area of a Priority habitat identified in the NERC section 41 and 42 lists and/or the UK BAP; or Nationally significant population of a species listed on Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981, or of a Priority species identified in the NERC Act, UK Red Data book species, or of a nationally rare species (15 or fewer 10 km squares in the UK).
Regional (e.g. in the context of specific assessment guidance, such as for bats (Reason & Wray, 2023), or ancient woodland (Rose, 1999), or County (i.e. Buckinghamshire)	High or medium importance and rarity at county or regional scale and limited potential for substitution	Regionally or county significant representations of Priority habitats or Priority/protected species; Locally designated sites (e.g. LWS); Effectively 'irreplaceable' habitats such as designated or undesignated ancient semi-natural woodland; or Sustainable populations of nationally scarce species (16-100 10km squares in the UK).
District/Borough (i.e. South Bucks)	Medium importance and rarity, local scale	Undesignated sites that are good examples of a more widespread habitat, or species-poor examples of a habitat of note (as described above); Populations of scarcer species occurring on an intermittent, transient or casual basis; or Population of a species that is of medium importance/rarity but adjudged to represent a significant (e.g. >1%) proportion of the likely District/Borough resource
Local	Low importance and rarity, local scale	Undesignated sites that are good (e.g. species-rich) examples of a more widespread habitat, or species-poor examples of a habitat of note (as described above); or Population of a species that is of low importance/rarity but may represent a significant proportion of the total occurring locally.
Immediate local context (i.e. at level of Site)	Site boundary	Features, habitats and species not meeting any of the above criteria, including low grade, readily re-creatable and widespread habitats.

Establishing Receptor Sensitivity

6.4.25. In order to determine whether effects (on key ecological receptors) that are determined as 'likely' are 'significant' in EIA terms, the sensitivity of the affected habitat, site or species must be considered. The sensitivity of an individual receptor is a product of various factors including:

a. Habitat extent or population size (at a given geographical level);

b. Habitat or population fragility (including ability to recover);

c. The rarity of a species or habitat; and

d. Susceptibility to environmental change (e.g. from disturbance or pollution).

6.4.26. Applying the above criteria, the sensitivity of individual receptors can be put into 'High', 'Moderate' or 'Low' categories as described in Table 34 below.

Table 34 Receptor Sensitivity

Sensitivity	Habitat Example	Species Example
High	Habitat is highly susceptible to nutrient enrichment or invasion from competitive species; Habitat has highly specialised hydrological or soil/geology requirements (e.g. calcareous fen) Habitat is present as small and isolated fragments vulnerable to edge effects Habitat takes an extended period to develop full suite of components (e.g. ancient woodland)	Species is highly intolerant of disturbance or pollution Species is present in a small and isolated population and/or has low dispersal rates Species has low recruitment rates and population recovery is likely to be very slow
Medium	Habitat can tolerate some elevated levels of pollution or will recover within a short-medium term (e.g. <20 years); Habitat has hydrological or soil/geology requirements that can be recreated or are fairly widely met; Habitat may be isolated, but is present at an extent that provides resistance to edge effects and is better able to accommodate damage; Habitat develops over a moderate timescale given the right conditions (e.g. unimproved acid grassland).	Species is able to tolerate some levels of disturbance or pollution (e.g. sub-lethal effects). Species population is restricted, but large enough to accommodate some temporary reduction without long term consequences for viability. Species has moderate recruitment rates.
Low	Habitat is highly resistant (or even benefits from) nutrient enrichment or other forms of pollution and physical disturbance (e.g. improved grassland); Habitat has non-specific requirements that are readily met elsewhere Habitat is extensive and well able to accommodate localised or more extensive damage. Habitat is easily recreated over a short timescale (e.g. arable).	Species is highly resistant to disturbance and pollution (e.g. commensal species/most urban wildlife) Species' population is widespread and recolonisation in the wake of any localised range reduction likely to occur readily Species has high recruitment rates likely to lead to rapid recovery of population levels

6.4.27. As with the identification of key receptors, a certain amount of subjectivity and the application of professional judgment is unavoidable when determining sensitivity, however in addition to firsthand experience of the species/habitat and locality in question, a wealth of scientific literature and/or local conservation status information can often be drawn upon to inform such judgements.

Assessment of Effects

6.4.28. The ES chapter will assess:

a. The potential for ecological impacts throughout the enabling and construction works and as a result of the completed development and resultant ecological effects;

b. The likely significant ecological effects;

c. Any required mitigation or monitoring to address any likely significant adverse ecological effects; and

d. The potential for cumulative effects in relation to ecology with other agreed upon schemes in the surrounding area.

6.4.29. The above assessments will be provided for the following potential impacts, where it is considered likely significant effects are likely to arise as a result of the Proposed Development.

6.4.30. The enabling and construction phase has the potential to result in significant effects on the following receptors:

a. Statutory designated sites as listed above – Potential indirect impacts, through air quality changes associated with the enabling works and construction of the Proposed Development;

b. Non-statutory sites within 2km – Potential direct impacts on Hedgerley Green Claypits BNS (habitat loss) and indirect impacts on other non-statutory sites such as changes to air quality or water quality;

c. Priority habitats – Direct loss or degradation of on-site habitats through construction works, alongside the potential loss of lowland mixed deciduous woodland;

d. Other habitats – Direct loss or degradation of other habitats through construction works; and

e. Protected Species (badger, dormouse, water vole, fish, nesting birds, reptiles, great crested newts, bats, non-breeding birds, invertebrates and other amphibians) – Potential impacts as a result of loss or degradation of associated habitat, and disturbance, during the construction works.

6.4.31. The complete and operational Proposed Development is likely to result in significant effects on the following receptors:

a. Statutory designated sites as listed above – Potential indirect impacts, through air quality changes associated with the operation of an energy centre and other power infrastructure (backup generators) and increased road traffic;

b. Ancient woodland within 5km – Potential indirect impacts, through air quality changes associated with the operation of an energy centre and other power infrastructure (backup generators) and increased road traffic;

c. Other non-statutory sites within 2km – Potential indirect impacts on Hedgerley Green Claypits BNS and other non-statutory sites such as changes to air quality associated with the operation of an energy centre and increased road traffic, water quality associated with discharge of surface water, foul and grey water, and lighting impacts associated with external operational lighting;

d. Priority habitats – Potential indirect impacts such as changes to air quality or water quality, or lighting impacts, as above;

e. Other habitats – Potential indirect impacts such as changes to air quality or water quality, or lighting impacts, as above; and

f. Protected Species (dormouse, water vole, fish, nesting birds, great crested newts, bats, non-breeding birds and other amphibians) – Potential indirect impacts from disturbance (e.g. lighting and noise) and changes to water quality from the operation of the Proposed Development.

Assessment Methodology

Enabling and Construction

6.4.32. All identified receptors (if present) have the potential to be subject to significant construction effects based on existing information, and are therefore scoped into assessment.

6.4.33. Impacts will be assessed according to the CIEEM Guidelines for Ecological Impact Assessment (EcIA). This will include the following, as reproduced from the guidelines:

a. ***"Scoping** – Determining the matters to be addressed in the EcIA, including consultation to ensure the most effective input to defining the scope. Scoping is an ongoing process – the scope of the EcIA may be modified following further ecological survey/research and during impact assessment.*

b. ***Establishing the baseline*** *– Collecting information and describing the ecological conditions in the absence of the proposed project, to inform the assessment of impacts.*

c. ***Important ecological features*** *– Identifying important ecological features (habitats, species and ecosystems, including ecosystem function and processes) that may be affected, with reference to a geographical context in which they are considered important.*

d. ***Impact assessment*** *– An assessment of whether important ecological features will be subject to impacts and characterisation of these impacts and their effects. Assessment of the significance of the residual ecological effects of the project (those remaining after mitigation).*

e. ***Mitigation, compensation and enhancement*** *– Incorporating measures to avoid, reduce and compensate negative ecological impacts and their effects, and the provision of ecological enhancements. Monitoring impacts and their effects. Evaluation of the success of proposed mitigation, compensation and enhancement measures."*

6.4.34. Potential impacts on statutory designations and off-site non-statutory designations will be assessed as above in coordination with specialist consultants, particularly the air quality consultants.

6.4.35. On-site non-statutory designations, namely the Hedgerley Green Claypits BNS, will be surveyed directly as part of the Site survey programme. This will include a habitat survey and assessment of the Site to establish whether the Site meets the criteria of a Local Wildlife Site.[163]

6.4.36. Habitat impacts will be assessed as above, alongside the application of the Biodiversity Net Gain (BNG) metric, for calculating both the quantum and adjudged value of habitats lost to construction works.

Completed Development

6.4.37. All identified receptors (if present), excluding invertebrates and badger which are scoped out of operational impacts (see the *Impacts to be Scoped Out* section below), have the potential to be subject to significant operational effects based on existing information, and are therefore scoped into assessment.

6.4.38. The proposed impact assessment methodology for the operational phase will replicate that for the enabling and construction phase, as described above. However, for designated sites this will include a Habitat Regulations Assessment, focusing on Stage 1, "to check if the proposal is likely to have a significant effect on the [designated] site's conservation objectives". Should significant effects be identified then the assessment will proceed to Stage 2 of the HRA process.

Determining Effect Significance

6.4.39. Taking account of the above parameters, whether a potential impact or effect is 'significant' or not at the given geographical level that the receptor is valued at is determined by quantifying the magnitude of impact on the receptors identified, both individually and collectively. Magnitude of impact is established on the basis of a variety of environmental and ecological factors, receptor sensitivity, and professional judgement. In accordance with current CIEEM Guidance, the use of categorisations such as 'major, moderate and minor' to provide a ranking of significance, consistent with matrix-based approaches to EIA, is not adopted in this assessment. Effects and impacts are instead defined as either significant or not significant at the relevant geographic frame of reference.

6.4.40. Thus, for receptors of national or international value and high sensitivity, negative effects measured at high or very high magnitude are likely to represent a significant impact at that geographical scale. At the other end of the scale, minor magnitude effects on receptors of low sensitivity and only immediate local value are likely to be below significance thresholds, and to merit relatively low weight in planning decisions.

6.4.41. Substantial effects or impacts on high value receptors that are of low sensitivity may fall either side of the significance threshold - in such cases further avoidance (e.g. via design amendment) or mitigation

[163] *Thames Valley Environmental Records Centre (TVERC) & Buckinghamshire & Milton Keynes Environmental Records Centre (BMERC). (no date). Local Wildlife Sites (LWS) Selection Criteria for Berkshire, Buckinghamshire and Oxfordshire. V.7*

(e.g. the taking of measures to reduce effect magnitude) may be able to be employed to ameliorate impacts. A key consideration is whether the 'integrity' of a site or ecosystem (e.g. the coherence of its structure and function) and/or the 'conservation status' of a species or habitat (e.g. the ability of a population/habitat to maintain itself at pre-development levels/quality) will be compromised.

Cumulative Effects

6.4.42. In accordance with the Planning Inspectorate's Advice Note on Cumulative Effects[164], a long list of cumulative schemes will be identified for the Zone of Influence[165] , considering Tier 1, Tier 2 and Tier 3 developments. Consideration will then be given as to whether or not the identified developments should progress to the assessment of cumulative effects based on their distance from the Site, any functional links to the Site and the type of development proposed. This will be clearly documented in the ES. Information on the Proposed Development scoped into the cumulative effects assessment will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country Planning development and the Planning Inspectorate's register for DCO developments and other relevant authorities within 15km of the Site / Ecological Study Area where appropriate). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3.

6.4.43. In this instance cumulative effects to ecological receptors are likely to be limited to changes to air quality. The methodology for assessing cumulative ecology effects for Tier 1 and Tier 2 developments will follow the CIEEM Guidelines for EcIA (para 5.19-5.22). The cumulative effects assessment taking into consideration any Tier 3 development will be more qualitative as detailed information for these projects is unlikely to be available.

Decarbonisation Readiness

6.4.44. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion.

6.4.45. Considerations for decarbonisation via hydrogen conversion in relation to ecology and biodiversity relate to any altered air quality impacts, resulting from additional NOx emissions from hydrogen combustion, and additional areas of disturbance should connectivity to a new hydrogen supply be required (as opposed to the repurposing of the existing natural gas pipeline). This will follow the methodology set out above.

Mitigation

6.4.46. As far as possible, the Proposed Development will be designed so as to avoid direct or indirect impacts on identified ecological receptors. This is to include appropriate buffers for potentially harmful activities which could impact retained features within the Site, and those beyond the Site boundary.

6.4.47. Habitat mitigation and compensation are likely to involve a scheme of enhancement focused on the wider Ecological Study Area habitats, to offset losses within the Site itself. This is to be quantified and secured through the BNG mechanism.

6.4.48. Mitigation for protected species will include measures such as appropriate scheme design to reduce impacts (lighting), appropriate timing of works to avoid impacts (e.g. with respect to nesting birds and reptiles), the creation of compensatory habitat (if necessary) and the licencing/mitigation for protected species such as great crested newt.

Impacts to be Scoped Out

6.4.49. Impacts on otter have been scoped out from this assessment. Habitats within the Site are of limited suitability for this species, with suitable habitat largely confined to the ponds within the Site and wider Ecological Study Area. The closest continuous watercourse to the Site which otters could use for dispersal is the River Misbourne, which is located approximately 3.2km northeast of the Site. Other

[164] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment*
[165] *As defined for the effect, likely limited to air quality in this instance*

watercourses closer to the Site are limited to occasional ditches/drains which do not appear to form a continuous network. As such, the Site is considered suitably disconnected from potential otter dispersal habitat to be beyond the range of colonisation.

6.4.50. Impacts on badger are scoped out as an operational phase receptor, as following potential loss of habitat (enabling and construction), badgers are not expected to be affected by potential operational impacts such as localised changes to air quality, noise or lighting, especially as the primary area to be impacted (the current active landfill) is, and will remain, suboptimal for this species.

6.4.51. Invertebrates (as a distinct receptor, i.e. excluding designated sites of value to invertebrates) are scoped out as an operational phase receptor, albeit pending the results of the programmed further surveys, upon which this position will be reviewed. All habitats of elevated value for invertebrates (i.e. open mosaic habitats and ponds) will either be lost from the main area of operational impacts, or are considered suitably buffered (either spatially and/or through barriers such as woodland) from said impacts, including compensation habitat areas.

Summary

6.4.52. The potential effects to be assessed within the ES will be as follows:

a. Internationally designated sites, particularly Burnham Beeches SAC - Changes to air quality resulting from power generation, including backup generators, and subsequent impacts;

b. Nationally designated sites - Changes to air quality resulting from power generation, including backup generators, and subsequent impacts;

c. Locally designated sites - Direct impacts upon sites within/immediately adjacent to the Site, alongside indirect impacts such as changes to water quality, lighting and air quality;

d. Habitats - Permanent and temporary loss and degradation of habitats;

e. Protected species - Direct loss of habitat, alongside indirect impacts such as disturbance and lighting effects; and

f. Other species such as notable invertebrates and plants - Direct loss of habitat, alongside indirect impacts such as disturbance and lighting effects.

6.5. GROUND CONDITIONS, CONTAMINATION, LAND TAKE AND SOILS

Introduction

6.5.1. It is considered that there is the potential for likely significant effects relating to ground conditions, contamination, land take and soils and so this topic shall be '**scoped in**' to the EIA. The ground conditions assessment will be undertaken by Terrell Ltd.

6.5.2. This chapter considers the potential impacts of the Proposed Development on ground conditions during construction and operation, and any potential significant adverse environmental effects. It sets out the proposed methodology for the assessment of ground conditions and identifies those impacts that can be scoped out of the assessment. Where necessary further assessment will be presented in the ES.

Policy, Legislation and Guidance

6.5.3. Policy, legislation and guidance relevant to ground conditions, contamination, land take and soils includes, but is not limited to, the following:

Policy

a. National Planning Policy Framework (2025);
b. National Policy Statement for Energy (EN-1) (2026);
c. Buckinghamshire Development Plan (2024);
d. Buckinghamshire Minerals and Waste Local Plan 2016-2036 (2019);
e. South Buckinghamshire District Local Plan (2011); and
f. Gerrards Cross Parish Neighbourhood Development Plan 2017-2040 (2025).

Legislation

g. Part 2A of the Environmental Protection Act 1990;
h. The Construction (Design and Management) Regulations 2015 (CDM Regulations);
i. Control of Substances Hazardous to Human Health (COSHH) 2002;
j. Control of Asbestos Regulations 2012;
k. The Environmental Permitting (England and Wales) Regulations 2016 (EP Regulations);
l. Waste Framework Directive (2018);
m. The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017; and
n. The Water Act 2014.

Guidance

o. C552 Contaminated Land Risk Assessment: A Guide to Good Practice 2001;
p. C532 Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors 2001;
q. C733 Asbestos in Soil and Made Ground: A Guide to Understanding and Managing Risks 2014;
r. Land Contamination Risk Management (LCRM) 2021;
s. Contaminated Land Statutory Guidance (2012);
t. Guidance on Assessing Risk to Controlled Waters from UK Land Contamination Under Conditions of Future Climate Change 2022;
u. Groundwater Protection Technical Guidance 2017; and
v. The Environment Agency's Approach to Groundwater Protection (2018).

Baseline Conditions

Study Area

6.5.4. The following study areas have been identified in respect of Ground Conditions for pre-construction (baseline), enabling and construction and completed development:

a. Human Health: The Study Area will be limited to 250m from the Site boundary, as per best practice documents[166]. The 250m distance is typical at the hazard identification stage of an assessment based on professional judgement;

b. Controlled Waters: The Study Area will be limited to 1km from the Site boundary;

c. Building Fabric and Services: The Study Area will be limited to 250m from the Site boundary;

d. Agricultural land and soils: The Study Area will be limited to 250m from the Site boundary; and

e. Amenity Use: The Study Area will be limited to 250m from the Site boundary.

6.5.5. The study area for controlled waters, building fabric and services, agricultural land and soils, and amenity uses is based on professional judgement and understanding and appreciation of the ground conditions and understanding of the Site and surrounding area.

Current Baseline Conditions

6.5.6. The baseline conditions considered in this assessment have been determined using information gathered within a Preliminary Geo-environmental Risk Assessment of the Study Area (prepared by Delta Simons, dated July 2022[167]); a Proposed Ground Investigation Summary (prepared by Terrell, dated May 2025); and a Construction Quality Assurance Plan for Ground Investigation and Monitoring Well Installation (prepared by Terrell, dated September 2025).

6.5.7. As set out in *Section 2* of the EIA Scoping Report, the majority of the Site is subject to a landfill licence albeit landfill waste is no longer being accepted and Veolia (who are managing the landfill site) are now implementing a programme of ongoing maintenance and management, in addition to the operation of the biogas energy plant and the leachate plant.

6.5.8. Quattro currently occupy a central / northern portion of the Site for the production of aggregate (see Figure 4 in **Appendix 1: Figures**). Lagoons are located in the southwest and east of the Site. Ground levels are variable and are typically between 89m to 117m AOD.

6.5.9. Areas located outside of 'the Site' boundary (as defined in *Section 2.1.1* and in Table 2 of this EIA Scoping Report), but located within the Wider Ownership Area, to the west, north and east of the Site typically comprise of closed landfill areas. Agricultural land and some residential and commercial properties (such as Beaconsfield Household Recycling Centre and Richard Williams Cabinetmaker) are located adjacent to the proposed access road in the west of the Proposed Development. Wapseys Wood Caravan Site is located adjacent to the proposed access road at the northern end of the Site. The Crowne Plaza Hotel is located along the A40 Oxford Road approximately 110m northwest of the existing site access at the northern end of the Site. Agricultural land and some isolated residential properties are located from approximately 100m east of the Site boundary.

6.5.10. The southern boundary of the Site is formed by the M40 motorway, followed by agricultural land and Slade Farm Quarry to the south of the M40. Hedgerley Allotments and Linden Therapies are located adjacent to the existing access road in the southeast of the Proposed Development.

Site History

6.5.11. Historically, the central and southern areas of the Site were agricultural land and woodland until it was developed into a sand and gravel extraction / processing facility with associated buildings and

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[166] *Guidance for the Safe Development of Housing on Land affected by Contamination (2008)*

[167] *This report is considered valid to rely upon as the site uses and conditions have generally remained the same since the report was prepared in 2022. Ground gas/leachate treatment systems of the nearby closed landfills have continued to operate.*

processing infrastructure around 1974. A ‘refuse tip’ appeared to be located at the south of the Site between 1974 and 1978. The processing / extraction activities continued until approximately 2017 when these areas were subsequently infilled. The central / southern areas of the Site then became part of the wider storage / maintenance area for a waste management company (Veolia).

6.5.12. The northwest and northeast of the Site generally comprised of agricultural land until around 1940 and subsequently comprised of sand and gravel extraction pits up until the 1960s. These were subsequently infilled with refuse waste. Veolia manages the landfills, which has ceased operations, and currently operates on-site gas and leachate monitoring and treatment programmes.

6.5.13. The surrounding land uses (west, north and east) also generally comprised of agricultural land until around 1940 and subsequently comprised of sand and gravel extraction pits up until the 1960s. Similarly, these were subsequently infilled with refuse waste with associated subsequent gas and leachate monitoring and treatment programmes.

6.5.14. South of the Site generally comprised of agricultural land with the M40 motorway (adjacent south) constructed by 1974.

Published Geology

6.5.15. Based on available published geology British Geological Society (BGS) information, the geological sequence at the Site comprises the following: superficial deposits of the Gerrards Cross Gravel (likely removed as part of gravel extraction), underlain by bedrock deposits of the Lambeth Group, overlying Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) – Chalk.

Hydrology

6.5.16. The nearest main surface water is the River Misbourne, located approximately 3.7km east of the Site. There are 10 existing ponds currently within the Site boundary. These comprise of permanent and ephemeral ponds of various sizes.

Hydrogeology

6.5.17. The Environment Agency aquifer designations for the geological units at the Site and surrounding area are as follows: The superficial deposits of the Gerrards Cross Gravel is classified as a Secondary A Aquifer. The bedrock of the Lambeth Group is classified as a Secondary A Aquifer. The Chalk Formation is classified as a Principal Aquifer.

6.5.18. The Site is located within the total catchment (groundwater Source Protection Zone (SPZ) 3) of the Bulstrode pumping station, which extracts water from the chalk aquifer for public supply (approximately 500m north of the Site). Bulstrode pumping station is considered upgradient of the Site. A groundwater SPZ 1 is located approximately 400m northeast of the Site. Groundwater abstraction licences are located in the southeast of the Site associated with process water for mineral production (and considered to be no longer active).

6.5.19. An active groundwater abstraction licence is located approximately 200m southwest of the Site, associated with Slade Farm Quarry. A private groundwater abstraction is located approximately 900m east of the Site (abstraction depth not known). Groundwater flow within the chalk aquifer is to the south/southwest. Groundwater levels within the chalk aquifer appear to be between 49-55m AOD.

Waste Licences/Permits

6.5.20. Areas of the Site and surrounding area have been identified by the Environment Agency as historic landfill areas and current authorised landfill areas. Numerous landfill licences and waste related permits/licences have been identified for the Site and surrounding area.

6.5.21. The Site and the surrounding area are located within the boundary of an Environment Agency (EA) Environmental Permit for landfill related activities. Active landfilling ceased in 2017. The Environmental Permit (EPR/XP3636KW) is held by Veolia ES Landfill Limited.

Previous Investigations

6.5.22. A ground investigation was undertaken in 2008 in the southeast of the Site. The ground investigation comprised of four trial pits and ten cable percussive boreholes. Three of the trial pits recorded landfill waste (i.e. paper, plastic, wood, metal etc.) beginning at approximately 2.50-3.50m below ground level (bgl). The base of landfill waste was not proven as the trial pits were terminated on encountering the landfill waste. The boreholes did not encounter landfill waste, but some horizons did include ceramics, glass, wood etc. as infill material. Made Ground was encountered to between 0.30m bgl and 8.90m bgl. The Lambeth Group was recorded to between 15.00m and 33.80m bgl and generally recorded as various compositions and either a sandy/gravelly clay or clayey sand. Gravel (granular) horizons were also present. Chalk was encountered to a maximum unproven depth of 30.00m bgl and typically described as structureless chalk of cream clayey, sandy gravel. Groundwater was recorded intermittently within the Made Ground and Lambeth Group.

6.5.23. Chemical laboratory testing was undertaken on 10no. samples which were analysed for a variety of contaminants including asbestos, metals, petroleum hydrocarbons, Polycyclic Aromatic Hydrocarbons (PAHs), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), phenols and cyanide.

6.5.24. The results of the laboratory analyses have been compared to suitable screening criteria to assess if the soils are considered a significant risk for the Proposed Development, by Terrell. The exposure scenario of a commercial end-use has been used to identify potential exposure pathways for human health receptors, which is considered to be the most suitable end-use screening criteria related to the Proposed Development. The Category 4 Screening Levels (C4SLs) published by DEFRA (2014)[168] have been adopted in the first instance. These are only applicable for seven compounds, namely arsenic, benzene, benzo(a)pyrene, cadmium, chromium VI, lead and naphthalene. Where a C4SL is unavailable, the "Suitable 4 Use Levels" (S4ULs) published by LQM/CIEH (2015)[169] have been adopted.

6.5.25. The C4SLs have been developed by CL:AIRE for DEFRA in response to the new definitions within the Contaminated Land Statutory Guidance (ref. DEFRA, April 2012). The LQM/CIEH S4ULs have been developed in accordance with developments in UK human health risk assessment since 2009, in particular the additional land uses and exposure assumptions presented in Defra's C4SL guidance. The S4ULs are based on Health Criteria that represent minimal or tolerable levels of risks to health as described in the Environment Agency's SR2 guidance, ensuring that the resulting assessment criteria are 'suitable for use' under planning.

6.5.26. Asbestos was not detected in the samples analysed.

6.5.27. A ground investigation was undertaken at the Site in November and December 2025 and comprised of approximately 26 boreholes and 22 trial pits (information such as exploratory hole logs and soil chemical results pending and will be summarised within the ES). Groundwater monitoring and sampling and ground gas monitoring and will be undertaken in 2026. The ground investigation and subsequent monitoring will assess the ground conditions at the Site and will help inform subsequent risk assessments.

Future Baseline Conditions

6.5.28. Based on the available information, it is considered that the existing baseline conditions would not materially change in the absence of the Proposed Development as the land would remain in its current use and conditions will only vary through the change of land use and development.

6.5.29. Under the permitted restoration works, adverse impacts in relation to ground conditions and contamination would not be expected. It is anticipated that the impact to ground conditions would be negligible and would remain similar as existing soils located at the Site would generally remain in-situ

[168] *Category 4 Screening Levels: Naphthalene (2024)*
[169] *LQM/CIEH 'Suitable 4 Use Levels (2015)*

and any imported soils would be appropriately validated to ensure they are suitable for the intended use.

Receptors

6.5.30. Potential sensitive receptors include:

a. Human Health:
   i. Construction workers[170];
   ii. Future site users, maintenance workers and visitors; and,
   iii. Surrounding land users (including Wapseys Wood Caravan Site), residential dwellings, maintenance workers and visitors.

b. Controlled Waters:
   i. Surface Waters (On-site and adjacent ponds);
   ii. Groundwater within the Secondary A Aquifers and Principal Aquifer; and,
   iii. Groundwater abstraction boreholes.

c. Buildings structures and services;

d. Agricultural land; and

e. Amenity Use (including off-site allotments and public rights of way).

Receptor Value / Sensitivity

6.5.31. Assessment of receptor value (sensitivity) for ground conditions will follow the framework described in Table 35 which is based on Table 3.11 of the DMRB Sustainability & Environmental Appraisal, LA 109: Geology and Soils. Negligible sensitivity has been removed, as it is deemed irrelevant as no receptor (in terms of ground conditions) is classed as negligible.

6.5.32. Factors that may affect the sensitivity of the likely receptor include:

a. Human Health – duration on-site and distance from the Site;

b. Controlled Waters - distance from the Site and resource potential; and

c. Building Fabric and Services – building design including factors such as gas protection measures and depth (below ground level) of services installations.

Table 35 Classification of Value (sensitivity) of Receptors

Receptor Value (sensitivity)	Criteria	Typical Examples	
High	Human health: high sensitivity land use.	Contamination	Construction and maintenance workers (where extensive earthworks are proposed). Residential properties or allotments.
	Nationally or regionally significant attribute of high importance.	Surface water	Watercourses having a WFD classification shown in a River Basin Management Plan (RBMP) and Q95 ≥ 1.0 m3/s where Q95 is the flow in cubic metres per second which was equalled or exceeded for 95% of the surface water feature's flow record.
	Nationally or regionally significant attribute of high importance	Groundwater	Groundwater currently used, or likely to be suitable for use as, public potable supplies (e.g., Principal Aquifers, Source Protection Zone for a potable groundwater supplies). Groundwater that is providing baseflow to 'very good' SPZ1.

[170] *Construction workers refer to workers of the remediation, site preparation, and construction and enabling works of the Proposed Development.*

Receptor Value (sensitivity)	Criteria	Typical Examples	
Medium	Human Health: moderate sensitivity land use.	Contamination	Construction workers (where limited earthworks are proposed). Public open space.
	Locally significant attribute of moderate importance.	Surface water	Watercourse having a WFD classification shown in a RBMP and Q95 ≥ 1.0 m3/s.
	Locally significant attribute of moderate importance.	Groundwater	Groundwater currently used for, or likely to be suitable for, providing non-potable supplies or limited domestic supplies (e.g., Secondary Aquifers for domestic supplies or industrial abstractions).
Low	Human Health: low sensitivity land use.	Contamination	Construction and maintenance workers (minimal disturbance of ground). Commercial or industrial properties.
	Of low quality and rarity	Surface water	Watercourses not having a WFD classification shown in a RBMP.
	Of low quality and rarity	Groundwater	Groundwater abstractions for agricultural or industrial use and / or within a Zone 3 outer catchment source protection zone.
Very low	Very Low sensitivity land use	Contamination	Construction and maintenance workers (where no disturbance of ground proposed). Infrastructure (roads, bridges, railways, buildings and services).
	Very Low quality and rarity	Surface water	Watercourses not having a WFD classification shown in a RBMP.
	Very Low quality and rarity	Groundwater	Absence of groundwater, e.g. non aquifer. Groundwater that is unlikely to be suitable for providing abstractions (e.g., aquifers in areas of saline intrusion).

Assessment of Effects

Enabling and Construction

6.5.33. The potential likely significant effects associated with potential exposure to contamination within the underlying soils / groundwater during the enabling and construction phase are on:

a. Site users (such as users of temporary on-site offices);
b. Construction workers (such as groundworkers);
c. Adjacent site users;
d. Controlled Waters;
e. Building structures and services;
f. Amenity use; and,
g. Agricultural land.

6.5.34. It should be noted that ground investigation works of the Site will be undertaken prior to construction works. If required, a Remediation Strategy will be prepared for the Site and will detail remediation / mitigation requirements based on the Proposed Development. The remediation / mitigation requirements will be completed prior to the completion of the enabling and construction works. Furthermore, if waste soils are encountered, these soils will be appropriately managed and in accordance with the relevant Environment Agency permits.

6.5.35. Subject to detail of the phasing of the construction of the Proposed Development being confirmed, there may be a need to assess the potential for effects for operational phase site users, while later phases of the scheme are still under construction. This will be considered within the ES, as necessary.

Completed Development

6.5.36. The potential likely significant effects associated with potential exposure to contamination within the underlying soils / groundwater once the Proposed Development is completed and operational are on:

a. Site Users (including staff and maintenance workers);
b. Adjacent site users;
c. Controlled Waters;
d. Building structures and services;
e. Amenity use; and,
f. Agricultural land.

6.5.37. Construction workers are not considered a receptor within the assessment of the completed and operational development, however maintenance workers will be included as a potential receptor.

ES Assessment Methodology

6.5.38. The ES chapter will assess:

a. The potential for Ground Conditions impacts throughout the construction works and as a result of the completed development and resultant Ground Conditions effects;
b. The likely significant Ground Conditions effects;
c. Any required mitigation or monitoring to address any likely significant adverse Ground Conditions effects; and
d. The potential for cumulative effects in relation to Ground Conditions with other agreed upon schemes in the surrounding area.

6.5.39. The above assessments will be provided for the following potential impacts, where it is considered there is potential for likely significant effects to arise as a result of the Proposed Development:

Enabling and Construction

6.5.40. The following impacts are proposed to be scoped in for the construction phase, as presented below in Table 36:

Table 36 Enabling and Construction Impacts Proposed to be Scoped In

Receptor	Potential Effects	Impacts / Justification
Site Users (such as temporary office users, site visitors and operational phase users).	Exposure to contaminated soils.	Contact with potentially contaminated soils via airborne migration of disturbed soils.
	Exposure to ground gases and volatile vapours.	Inhalation of ground gases and volatile vapours.
Construction Workers	Exposure to contaminated soils and groundwater.	Direct contact with potentially contaminated soils / groundwater during groundworks or via airborne migration of disturbed soils.
	Exposure to ground gases and volatile vapours.	Inhalation of ground gases and volatile vapours.
Adjacent Site Users	Exposure to contaminated soils.	Exposure to potentially contaminated soils via airborne migration of disturbed soils.
	Exposure to ground gases and volatile vapours.	Migration and inhalation of ground gases and volatile vapours.
On and off-site buildings and services (including building site users and construction workers)	Explosion risk.	Migration and accumulation of ground gases and volatile vapours in enclosed spaces.

Receptor	Potential Effects	Impacts / Justification
Groundwater	Contamination of groundwater.	Preferential pathways created during piling works. Potential for increased mobilisation of contaminants during groundworks and subsequent migration to groundwater.
On and off-site ponds	Contamination of ponds.	Potential for increased mobilisation of contaminants during groundworks and subsequent lateral migration to surface waters.
Groundwater abstraction boreholes	Contamination of abstracted water.	Potential for increased mobilisation of contaminants during groundworks and subsequent migration to groundwater, which is then abstracted.
Amenity use (such as off-site public right of way)	Exposure to contaminated soils.	Exposure to potentially contaminated soils via airborne migration of disturbed soils.
Amenity use (such as off-site allotments)	Flora uptake of contaminated soils.	Uptake of potentially contaminated soils via airborne migration of disturbed soils.
Agricultural land	Flora/fauna uptake/exposure of contaminated soils.	Uptake/exposure of potentially contaminated soils via airborne migration of disturbed soils.

Completed Development

6.5.41. The following impacts are proposed to be scoped in for Completed Development, as presented below in Table 37:

Table 37 Completed Development Impacts Proposed to be Scoped In

Receptor	Potential Effects	Impacts / Justification
Site Users	Exposure to contaminated soils.	Direct contact with potentially contaminated soils.
	Exposure to ground gases and volatile vapours.	Inhalation of ground gases and volatile vapours.
Adjacent Site Users	Exposure to contaminated soils.	Contact with potentially contaminated soils via airborne migration of soils.
	Exposure to ground gases and volatile vapours.	Migration and inhalation of ground gases and volatile vapours.
On and off-site buildings and services (including building site users)	Explosion risk.	Migration and accumulation of ground gases and volatile vapours in enclosed spaces.
Groundwater	Contamination of groundwater.	Mobilisation of potential contaminants and subsequent migration to groundwater (particularly in landscaped areas, which could increase the potential for leachate migration, should landscaped areas be situated on top of landfill cells).
On and off-site ponds	Contamination of ponds.	Potential for mobilisation of contaminants and subsequent lateral migration to surface waters.
Groundwater abstraction boreholes	Contamination of abstracted water.	Potential for mobilisation of contaminants and subsequent migration to groundwater, which is then abstracted.
Amenity use (such as off-site public rights of way)	Exposure to contaminated soils.	Exposure to potentially contaminated soils via airborne migration.
Amenity use (such as off-site allotments)	Flora uptake of contaminated soils.	Uptake of potentially contaminated soils via airborne migration.
Agricultural land	Flora/fauna uptake/exposure of contaminated soils.	Uptake/exposure of potentially contaminated soils via airborne migration.

Assessment Methodology

6.5.42. Based on the potential environmental impacts set out in Table 36 and Table 37 above, the methodology for the assessment of both enabling and construction, and completed development effects, will be as follows. The Environment Agency's LCRM guidance is to be followed by parties (existing and future) engaged in and responsible for land contamination. In the context of ground conditions, the LCRM provides a technical framework for understanding how contamination issues that may arise could be managed.

6.5.43. The LCRM recommends the use of a Conceptual Site Model (CSM), comprising three elements: a source, a pathway, and a receptor. Each element is described below:

a. **Source** – The presence of potential contaminants that may cause harm;

b. **Pathway** – A physical linkage between the source and receptor; and

c. **Receptor** – Those that are identified as being sensitive to the potential contamination (including human health, controlled waters, buildings, services, and ecological receptors).

6.5.44. Without a source, pathway and receptor being present, there can be no contamination risk. For example, the presence of measurable concentrations of contaminants within the soils does not present a contamination risk unless pollutant linkages have been defined and there is a risk of harm to receptors.

6.5.45. The CSM will be used to identify source, pathway and receptor linkages by integrating the intended end use for the Site, the Site's characteristics and the Site's surroundings. Thereafter, mitigation measures to manage the risks identified in the CSM will be identified.

6.5.46. The level of risk is evaluated in accordance with the methodology set out in CIRIA C552[171]. This methodology involves classification of the consequence and probability associated with each potential contaminant linkage and thereby the corresponding level of risk (risk category).

6.5.47. The framework for classifying consequence, presented in full in Table 6.3 of CIRIA C552, is summarised in Table 38 below. The consequence classification does not depend on the probability that the consequence will be realised.

Table 38 Qualitative Risk Assessment – Classification of Consequence

Classification	Definition
Severe	- Severe short term (acute) risks to human health, likely to result in significant harm; - Short term risk of pollution of sensitive water resource; and - A short-term risk to a particular ecosystem, or an organism forming part of such an ecosystem.
Medium	- Chronic damage to human health (significant harm); - Pollution of sensitive water resource; and - A significant change in a particular ecosystem, or an organism forming part of such an ecosystem.
Mild	- Pollution of non-sensitive water resource; - Significant damage to crops, buildings, structures and services; and - Damage to sensitive buildings / structures / services or to the environment.
Minor	- Harm, not necessarily significant, which may result in a financial loss, or expenditure to resolve; - Non-permanent health effects to human health; and - Easily repairable effects of damage to buildings, structures and services.

6.5.48. The 'severe' consequence classification describes acute risk (arising from short term exposure). The 'medium' classification describes chronic harm (and may constitute 'significant harm' under Part 2A of the Environmental Protection Act).

[171] *Contaminated Land Risk Assessment. A Guide to Good Practice (C552)*

6.5.49. The framework for classifying probability, presented in full in Table 16.4 of CIRIA C552, is summarised in Table 39 below.

Table 39 Qualitative Risk Assessment – Classification of Probability

Classification of Probability	Definition
High Likelihood	There is a contaminant linkage and an event that appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Likely	It is probable that an event will occur. Whilst not inevitable, it is possible in the short term and likely over the long term.
Low Likelihood	Circumstances are possible under which an event could occur, but it is not certain that (even over the long term) such an event would occur.
Unlikely	It is improbable that an event would occur, even in the very long term.

6.5.50. The level of risk (risk category), ranging from 'very high risk' to 'very low risk', is determined by the consequence and probability classifications using the matrix presented in full in Table 6.5 of CIRIA C552 and shown in Table 40 below.

Table 40 Qualitative Risk Assessment – Classification of Risk

	Consequence			
Classification of Probability	Severe	Medium	Mild	Minor
High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
Likely	High Risk	Moderate Risk	Moderate/Low Risk	Low Risk
Low Likelihood	Moderate Risk	Moderate/Low Risk	Low Risk	Very Low Risk
Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk	Very Low Risk

Significance of Effect Criteria

6.5.51. The significance of effects for land contamination on human health, controlled waters, building fabric and services and agricultural soils will be assessed by comparing the difference in risk level (as described above) for each contaminant linkage for baseline conditions to those at the construction and operational phase.

Magnitude of Impact

6.5.52. The expected magnitude of impact to each identified receptor will be assigned in accordance with the principles established in Table 3.12 of the DMRB Sustainability & Environmental Appraisal, LA 109: Geology and Soils and Table 3.4N of the DMRB Sustainability & Environmental Appraisal, LA 104: Environmental Assessment and Monitoring, along with professional judgement. The terms used to describe magnitude of impact are defined in Table 41 and use the change to the risk rating from the baseline condition, set out above in Table 40.

Table 41 Classification of Magnitude of Impact (change) and Nature of Effect

Magnitude of Impact (change)	Nature of Effect	Definition	Criteria for Assessing Impact
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements; exposure to acutely toxic contaminants.	An increase / decrease in contamination risk from the existing baseline conditions of four or five risk levels in the risk matrix, e.g., land that has a very low contamination risk in the baseline becomes a high or very high risk.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality.	

Magnitude of Impact (change)	Nature of Effect	Definition	Criteria for Assessing Impact
Moderate	Adverse	Loss of resource, but not adversely affecting integrity; partial loss of/damage to key characteristics, features or elements; short term exposure to contaminants with chronic (long term) toxicity.	An increase / decrease in contamination risk from the existing baseline conditions of two or three risk levels in the risk matrix, e.g., land that has a low contamination risk in the baseline becomes a moderate or high risk.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.	
Minor	Adverse	Some measurable adverse change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.	An increase / decrease in contamination risk from the existing baseline conditions of one risk level in the risk matrix, e.g., land that has a low contamination risk in the baseline becomes a moderate/low risk.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduce risk of negative impact occurring.	
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.	Negligible change in contamination risks.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.	

Significance Criteria

6.5.53. Once the sensitivity of the affected receptor and the magnitude of impact have been established, the matrix presented in Table 42 which is based on Table 3.8.1 of the DMRB Sustainability & Environmental Appraisal, LA 104: Environmental Assessment and Monitoring will be used to determine the significance of effect, ranging from 'Negligible to Major'. The likely duration of the effect and likelihood of the effect occurring is also considered when assessing each effect. Where a range has been provided, e.g. Moderate or Major, professional judgement will be used to define the significance. The effects are described as adverse and beneficial. An effect would be considered significant if assessed as Moderate or above.

Table 42 Scale of Effects Matrix

		Sensitivity			
		High	**Medium**	**Low**	**Very Low / Negligible**
Magnitude	Major	Major	Moderate to Major	Minor to Moderate	Negligible
	Moderate	Moderate to Major	Minor to Moderate	Minor	Negligible
	Minor	Minor to Moderate	Minor	Negligible to Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

6.5.54. Following the classification, a clear statement will be made as to whether the effect is 'significant' or 'not significant'. As a general rule, major and moderate effects are considered to be significant, and minor and negligible effects are considered to be not significant. However, professional judgement will also be applied where appropriate. The nature of the effect will then be defined as either beneficial or adverse. Effects that are considered to be adverse are those that have a detrimental effect on the existing baseline conditions and the Proposed Development. Effects that are considered to be beneficial are those that result in an improvement on existing baseline conditions.

6.5.55. The geographic extent of the effect will be considered, and this is defined as being one of the following:

a. Local: which are those affecting the Site and neighbouring receptors;

b. District: which are those affecting receptors within the local planning authority boundary;

c. Regional: which are those affecting the region of Buckinghamshire; or

d. National: which are those that could affect different parts of the country.

6.5.56. The duration of each effect will be considered as either being 'temporary', i.e. the effects last the duration of construction and then would no longer be significant; or 'permanent', i.e. the effect would last for the duration of the operational lifetime of the Proposed Development, or longer.

6.5.57. Each effect considered will then be defined as being either 'short-term', 'medium-term' or 'long-term' as defined below:

a. Short-term: typically from a few months up to three years in duration;

b. Medium-term: a duration of one to ten years; and

c. Long-term: a duration in excess of ten years.

6.5.58. Each considered effect will be defined as being either a 'direct' or an 'indirect' effect on the receptor. A direct effect is one in which would result without any intervening factors and an indirect effect is an effect which would not be caused directly or would result from other factors.

Cumulative Effects

6.5.59. The construction of other proposed schemes within the Study Area may be concurrent with some stages of construction of the Proposed Development. However, such proposed schemes will also be subject to provisions set out in policy documents and will require mitigation and control measures to be adopted through Construction Environment Management Plans. Furthermore, other proposed schemes will be subject to contaminated land assessments (with remediation/mitigation works where required) and will be operated in accordance with granted consents, relevant regulations and best practice guidance. As such, the potential for cumulative effects of the Proposed Development in combination with other cumulative schemes are considered not significant in relation to ground conditions as any effect is likely to be localised to the sites of the relevant cumulative schemes. As such, an assessment of cumulative effects has been scoped out of the ES.

Decarbonisation Readiness

6.5.60. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion, which does not materially influence the ground conditions impacts or assessment. This is largely because the potential sources of contamination, pathways and receptors remain the same as that set out above.

Mitigation

6.5.61. Relevant design, mitigation and enhancement measures will be identified in the ES, and these may include:

a. A ground investigation will be undertaken prior to the construction and enabling phase and will inform subsequent phases of risk assessment. The ground investigation findings will help inform health and safety risk assessments of construction workers and inform the level of mitigation requirements (such as specific Personal Protective Equipment (PPE)). The ground investigation findings will also inform the Remediation Strategy (detailed below);

b. A Construction Environmental Management Plan (CEMP) including, but not limited to, measures addressing materials management (such as segregation of soils where required), the suitable storage of fuels (such as in bunded areas and on hardstanding), dust mitigation (such as dampening down) and refuelling techniques (including mitigation such as drip trays);

c. A Foundation Works Risk Assessment (for impacts on groundwater from penetrative works and in accordance with relevant guidance[172]). The risk assessment will include assessing the ground conditions and if a specific piling technique is required to prevent the migration of potential shallow soil/groundwater contamination to the underlying aquifers; and

d. A Remediation Strategy to ensure the Proposed Development does not pose a significant risk to identified receptors. A remediation options appraisal will be undertaken and if required remediation / mitigation requirements could include the on-site treatment of impacted soils, off-site disposal of impacted soils, a clean cover layer over impacted shallow soils, ground gas/vapour building protection measures (e.g. gas membrane installation, building ventilation etc.). The Remediation Strategy would include a Verification Protocol, to be adhered to during remediation. Following implementation of any remediation works, a Verification Report would be produced and include records of works carried out, records of inspections and testing. This would be a requirement of the DCO.

Land Take

6.5.62. 'Land Take' in this context is the loss of agricultural, forest and other semi-natural and natural land to urban and other artificial land development. As discussed in the *Baseline* section above, the Site has been subject to extensive quarrying, extraction and landfilling activities. The Site is therefore considered to have been subject to previous development, and a site that has experienced industrial activity and is therefore not considered to be a greenfield site, and is not natural or semi-natural land that is being 'taken up' by development. The Site is subject to restoration as part of the existing EA licence for the landfill operations, and the restoration plan will inform the design of the landscape for the Proposed Development (noting that an amended restoration plan is subject to consent pending a Section 73 application (refer to *Section 2.3: Planning History* of this EIA Scoping Report)).

6.5.63. During the enabling and construction works, a CEMP will be prepared (and will be secured by a DCO requirement) which will, amongst other things, address the measures set out in the Defra Construction Code of Practice for the Sustainable Use of Soils, which includes the most appropriate re-use for the different types of soils within the Site, as relevant, and the proposed methods for handling and storing soils on-site.

6.5.64. It is anticipated that potential significant effects of the Proposed Development, in terms of land and soil (e.g. loss of biodiversity), would be comprehensively considered throughout the ES, including the: air quality assessment, ecology assessment, and within the standalone Flood Risk Assessment and Drainage Strategy, all of which will include mitigation measures (where relevant) and embedded design measures to reduce potential adverse effects of the Proposed Development on land and soils as far as reasonable practicable. The design of the Proposed Development will include areas of landscaping. There is therefore not considered to be a significant effect relating to land take.

6.5.65. It is also considered that the soil resources on-site would be able to retain their existing function. Soils at the Site largely form part of former landfill areas or quarry areas (which have subsequently been infilled). Providing the soils are suitable for use for the Proposed Development (which will be determined by the ongoing ground investigation works and confirmed within the ES), the soils will remain at the Site as part of the Proposed Development. If the soils are not suitable for use, the soils will be either disposed of off-site, or disposed of within the closed modern landfill cells with remaining capacity located within the Wider Ownership Area, as discussed in *Paragraphs 5.9.11-5.9.12* of this EIA Scoping Report. Further to remediation works (if required), soils located at the Site could also be enhanced through restoration works and landscaping works. Therefore, the impact of the Proposed Development upon soil resources is considered to be not significant.

[172] *EA. Piling into Contaminated Sites (2002) and Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention (2001).*

6.6. BUILT HERITAGE

Introduction

6.6.1. It is considered that there is the potential for likely significant effects relating to Built Heritage and so this topic shall be '**scoped in'** to the EIA. The built heritage assessment will be undertaken by Montagu Evans.

6.6.2. The built heritage assessment will assess the potential effects arising on the 'value' of identified heritage receptors, including designated (listed buildings, conservation areas, Registered Parks and Gardens and Scheduled Monuments where relevant) and non-designated heritage assets.

6.6.3. For the purposes of the ES and given the setting context and proximity of the Scheduled Monument of the Templars' site at Moat Farm (a buried remain), the Built Heritage ES Chapter will include an assessment of potential indirect effects on the Scheduled Monument's heritage 'value', focussed primarily on whether the Project introduces change to its setting which gives rise to a significant effect.

6.6.4. The built heritage assessment will not assess potential effects arising on any buried remains, with the exception of the Scheduled Monument. Buried remains have been considered within the Archaeology topic sheet of this EIA Scoping Report.

Policy, Legislation and Guidance

Planning (Listed Buildings and Conservation Areas) Act 1990

6.6.5. The statutory duties of the decision-maker when considering applications which affect designated heritage receptors are set out in the Planning (Listed Buildings and Conservation Areas) Act 1990 ('PLBCAA 1990').

6.6.6. The Site does not comprise any buildings or other land in a conservation area and, therefore, Section 72(1) of the PLBCAA 1990 is not engaged. This is because there is no statutory duty relating to the setting of conservation areas within the Act, and instead the Act only deals with proposals which have a direct interaction with a building or land situated within the boundaries of a conservation area.

6.6.7. The Site also does not contain any buildings and/or structures identified on the National Heritage List for England ('NHLE') (i.e. listed buildings). Therefore, Section 16(2) of the PLBCAA 1990 also does not apply, as this deals with proposals which have a direct impact on the listed buildings (i.e. including works to their built fabric).

6.6.8. There are several listed buildings which have been identified within the study area which may experience a change to their heritage value as a result of the Project introducing a change to their setting. The relevant statutory provision in relation to this potential impact is Section 66(1) of the PLBCAA 1990, which states that:

"In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural and historical interest which it possesses."

6.6.9. The Courts have confirmed that if the policy approach set out in the National Planning Policy Framework (2025) (the 'NPPF (2025)') is followed, then the statutory duties referred to above will have been fulfilled.

The Infrastructure Planning (Decisions) Regulations 2010

6.6.10. The Infrastructure Planning (Decisions) Regulations 2010 prescribes a list of matters to which the relevant decision maker must have when taking decisions of applications for NSIPs.

6.6.11. Section 3 of the regulations concerns applications affecting listed buildings, conservation areas and scheduled monuments. It states:

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

(2) When deciding an application relating to a conservation area, the decision-maker must have regard to the desirability of preserving or enhancing the character or appearance of that area.

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

National Planning Policy Framework (2025)

6.6.12. National planning policy requires an applicant to describe the significance of any heritage receptors affected by a proposed development, including any contribution made by their setting. 'Significance' (for heritage policy) is defined in the NPPF (2025) Annex 2 as:

"The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting."

6.6.13. The term 'heritage value' is interchangeable in this assessment with 'heritage significance' and has been adopted to avoid conflation between 'EIA significance'.

6.6.14. Paragraph 207 of the NPPF (2025) states that the *"level of detail [to describe the significance of heritage assets] should be proportionate to the assets' importance".* Great weight will be given to the conservation of all designated heritage receptors, although a gradation of value is appropriate. This is reinforced by the 2018 DCMS Principles for Selection of Listed Buildings which states *"listed buildings are graded to reflect their relative special architectural and historic interest".*

6.6.15. The value of heritage receptors may be expressed with reference to their historical or architectural value identified in the PLBCAA or the other values set out in the NPPF (2025): archaeological, architectural, artistic or historic.

Overarching National Policy Statement for Energy (EN-1) (2025)

6.6.16. The Overarching National Policy Statement for Energy (EN-1)[173] (NPS) emphasises the urgent need for new, large-scale energy infrastructure in order to meet the government's energy objectives.

6.6.17. Section 5.9 of the NPS concerns potential effects arising from new infrastructure on the historic environment. The NPS requires an applicant to undertake an assessment of any likely significant heritage impacts of a proposed development as part of the EIA, and describes these along with how the mitigation hierarchy has been applied in the ES. Such an assessment should include consideration of heritage assets above, at, and below the surface of the ground. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. As part of the ES, the NPS also requires the applicant to provide a description of heritage value of the asset affected by the proposed development, including any contribution made by setting. The level of detail should be proportionate to the importance of the asset, and no more than is sufficient to understand the potential impact on its value.

6.6.18. The approach to understanding potential effects follows national heritage policy and best practice guidance. Proposals should aim to sustain and enhance the significance of heritage assets, and put them to a viable use consistent with their conservation. Where harm is unavoidable, it must be clearly justified and weighed against public benefits. The NPS states that careful consideration is required in the preparation of a proposal on whether the impacts on the historic environment will be direct and

[173] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1). Available: https://assets.publishing.service.gov.uk/media/695d1015f41883f4e50ed9ab/overarching-national-policy-statement-for-energy-en-1-web-accessible.pdf Accessed: 15 January 2026.*

indirect, temporary or permanent. Proposals that preserve those elements of setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.

The Adopted Local Development Plan

6.6.19. The Site is located within the administrative boundary of Buckinghamshire Council ('BC'). The Statutory Development Plan for BC comprises:

a. South Bucks District Local Plan (the 'Local Plan') (March 1999; consolidated with changes in September 2007 and February 2011);

b. South Bucks Core Strategy (the 'Core Strategy') (February 2011); and

c. Policies Map (November 2011).

6.6.20. Policy EP3 of the Local Plan concerns 'Use', 'Design' and 'Layout' of future development, stating that development will only be permitted where its scale, layout, siting, height, design (incl. external materials) and use are compatible with the character and amenities of the Site and its surroundings. Part (b) of the same Policy considers layout, noting that proposed development should make positive use of existing features, such as topography, landscaping and views into or out of the Site.

6.6.21. Policy EP4 of the Local Plan specifically concerns landscaping and expects future development to incorporate appropriate hard and soft landscaping as an integral part of the proposals. Such landscaping should take account of, and retain, existing planting and landscape features, which are considered important elements in the character and appearance of the Site and its context. Part (c) of Policy EP4 notes that where appropriate, BC would accept the planting of additional trees and shrubs.

6.6.22. Core Policy 8: Built and Historic Environment of the Core Strategy supersedes Policies, L5, C3, C8 and C13 of the Local Plan. Core Policy 8 of the Core Strategy highlights the importance of the protection and, where appropriate, enhancement of the district's heritage assets, including their setting. The importance of protection and enhancement noted in the Policy extends to historic landscapes, especially those that make a particular contribution to local character and distinctiveness. New development must be of a high standard of design and make a positive contribution to the character of the surrounding area.

Emerging Policy Context

6.6.23. BC are in the early stages of preparing a New Local Plan, with the first publication expected in January 2026. Given the early stages of plan preparation, there are no draft policies for consideration at this stage, however this will remain under constant review as the contemporaneous policies will apply to decision making by BC and / or the Secretary of State.

Material Considerations

6.6.24. Further to the statute set out within the PLBCAA 1990, the national policies set out in the NPPF (2025), and NPS EN-1 and local policies within the adopted Development Plan, the built heritage assessment will draw on the following guidance and best practice documents:

a. National Planning Practice Guidance (online);

b. Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA) (2013);

c. An Approach to Landscape Character Assessment (2014);

d. TGN 06/19 Visual Representation of Development Proposals Technical Guidance Note (2019), prepared by Landscape Institute;

e. Historic England, Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (2015);

f. Historic England, Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017);

g. Historic England Advice Note 4: Tall Buildings (2022);

h. IEMA, CIfA and IHBC Principles for Cultural Heritage Impact Assessment (2021);

i. National Design Guide (2019);

j. Buckinghamshire Council, Historic Environment Record(s) (HER);

k. Buckinghamshire County Council, South Bucks District Council, Land Use Consultants, South Bucks District Landscape Character Assessment (2011), and;

l. Buckinghamshire Council, Hedgerley Village Conservation Area Appraisal.

Baseline Conditions

Study Area

6.6.25. An initial desk-based assessment of the surrounding heritage receptors was conducted prior to a Site visit, and all heritage receptors within a 3km radius around the Site were identified (see Figure 8). The 3km radius was considered appropriate given the broader landscape character of the Site, as well as to ensure heritage receptors with a broad setting context were identified and assessed during early site surveys and desk-based assessments. The 3km radius includes a number of conservation areas and listed buildings within Gerrards Cross to the east of the Site, as well as Beaconsfield Old Town to the west.

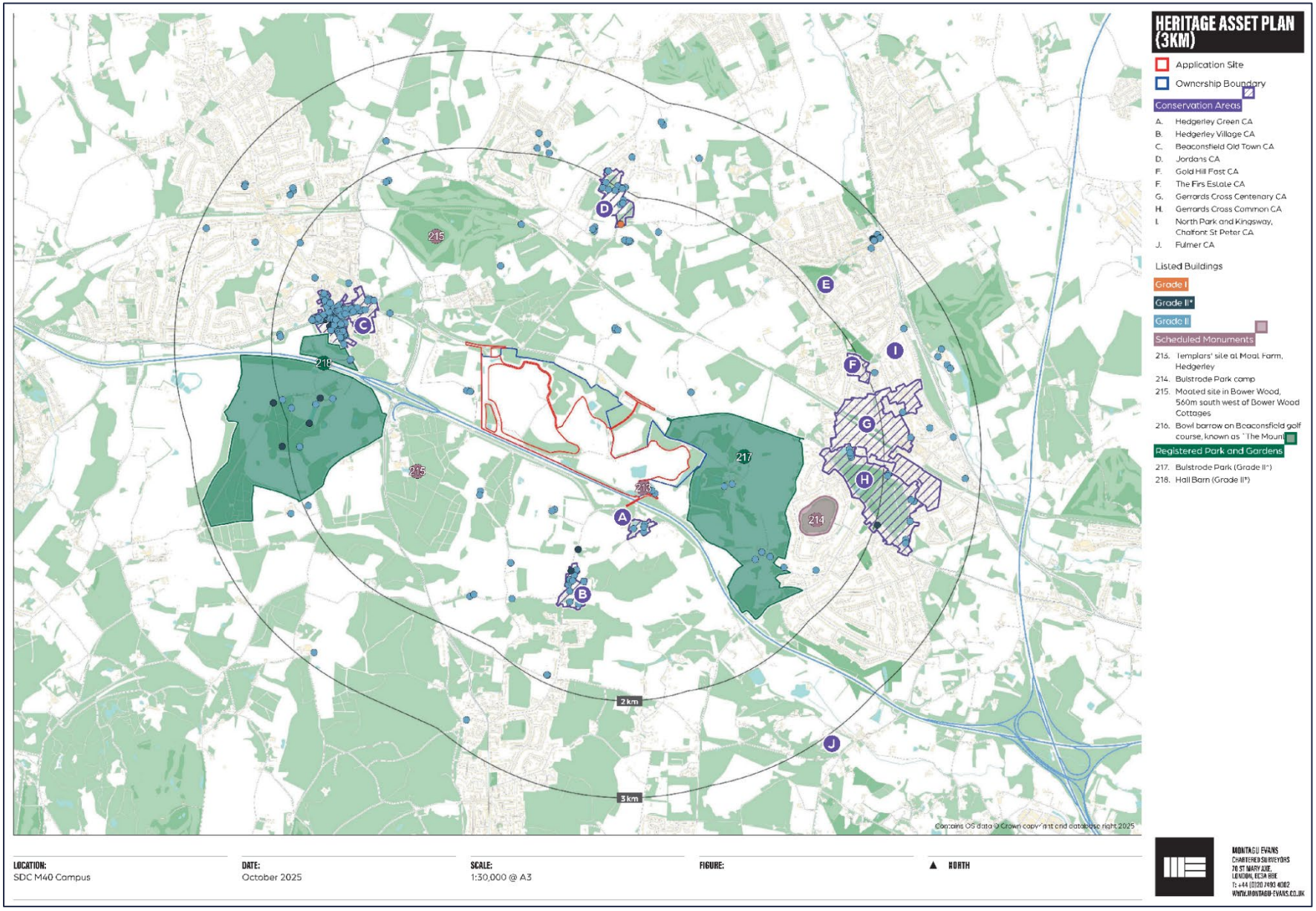
6.6.26. Following desk-based research, site surveys and professional judgement, the Study Area for the built heritage assessment has been refined to a radius of 2km. This radius was informed by initial visual tools, including the production of Zones of Theoretical Visibility (the 'ZTVs'), identifying whether built heritage receptors should be 'scoped in' or 'scoped out' from further assessment, based on lack of intervisibility, and an on-site and initial assessment of setting, identifying receptors were there would be no ability for the Project to affect the value of such receptors by virtue of a change to setting.

6.6.27. The ZTV prepared for the purpose of EIA Scoping (and therefore the Study Area and identified receptors to be scoped in to the Built Heritage assessment), have been based on early stages of design and will be updated as the design progresses. The ZTV, Study Area and scope of heritage receptors to be scoped in to the EIA will be kept under review as further design information becomes available, and the Built Heritage assessment presented in the ES will be based on the final design of the Proposed Development.

6.6.28. The 2km Study Area has been scrutinised further through site surveys and with reference to the ZTVs and understanding of the Proposed Development and both significance and setting context of identified heritage receptors. This has resulted in the scoping out of a number of additional heritage receptors (primarily those located to the west of the Site and within Beaconsfield Old Town – including the Beaconsfield Old Town Conservation Area, and its associated listed buildings – identified on the 2km Heritage Asset Plan at Figure 9 and the specific Beaconsfield Conservation Area Heritage Plan at Figure 10).

6.6.29. Those receptors identified within the Study Area and considered to have the potential for an indirect significant setting effect and therefore taken forward for assessment (also to be defined as 'Scoped In' to the Heritage Chapter of the ES) are identified in Table 43 below.

Figure 8 Heritage Asset Plan (3km Study Area)



Current Baseline Conditions

6.6.30. The Site is located on the southern side of the A40 Oxford Road and to the north of the M40 motorway. It lies to the west of Gerrards Cross and east of Beaconsfield, situated in the Metropolitan Green Belt. The Site has an existing vehicular access taken from the A40 Oxford Road, and is lined with a hedgerow and trees along its frontage with the highway to its south. There is woodland to the west (including newly planted woodland associated with previous landfill activity), with open fields to the east (with additional mature woodland beyond), with further open fields to the south, beyond the M40. The central area of the Site comprises the ongoing operations associated with the landfill[174], alongside associated buildings and infrastructure. There is hardstanding surface featuring concrete bays formerly utilised for sorting products from the adjacent quarry. The Site extends west to capture existing access points, linking with the London Road (the A40) to the north-west.

6.6.31. The Site is undulating owing to it comprising landfill. Some elements include shallow depressions, while other elements include rising land owing to completed landfill activities. The topography of the Site varies from approximately 89m AOD to 117m AOD.

6.6.32. To the Site's east is a large field with existing electricity pylons which cut across the eastern part of the Site, while it is bordered to the immediate east by an existing PROW.

6.6.33. In relation to the historic built environment, the Site does not contain any designated or non-designated heritage receptors. It is not situated within a conservation area or Registered Park and Garden.

6.6.34. The Site is, however, located within the vicinity of several listed buildings and approximately 400-500m to the west of the Registered Park and Garden of Bulstrode Park (registered at Grade II*). Bulstrode Park includes the Grade II listed Bulstrode House (a circa. 1860s building), as well as a Grade II listed Pigeon Tower, designed by James Wyatt, both listed buildings being situated beyond existing tree belts which define the western boundary of the Registered Park and Garden.

6.6.35. Immediately to the south-east of the Site is the Scheduled Monument of the Templars' site at Moat Farm, with the farm beyond comprising a Grade II listed farmhouse (Moat Farmhouse), and a listed range of ancillary barns (also listed at Grade II).

6.6.36. To the south of the M40 motorway is the Hedgerley Green Conservation Area (approximately 220m to the south of the Site). The conservation area includes four listed buildings, including Manor Farmhouse (Grade II), Outbuildings North East of Manor Farmhouse (Grade II), Leith Grove (Grade II) and Hammer Cottage and Harp Cottage (Grade II). Approximately 950m to the south of the Site is the Hedgerley Village Conservation Area, including a high concentration of listed buildings of various grades, including the Grade II* listed Parish Church of St Mary the Virgin.

6.6.37. To the west / north-west of the Site, at a distance of approximately 1.2km, is the Beaconsfield Old Town Conservation Area, which includes a high concentration of Grade II listed buildings fronting London End, which runs east-west through the centre of the conservation area. The conservation area and associated listed buildings are separated from the Site by the A40 and the A355 – a link road which runs to the south to join the M40.

6.6.38. A Heritage Asset Plan for the 2km Study Area is included Figure 9, illustrating the Site's location relative to these heritage designations and those further afield, within a 2km study area.

[174] *While the landfilling of waste operations have ceased, associated activities are ongoing in relation to the existing methane gas energy centre and leachate treatment plant, and the consented restoration work.*

Figure 9 Heritage Asset Plan (2km Study Area)

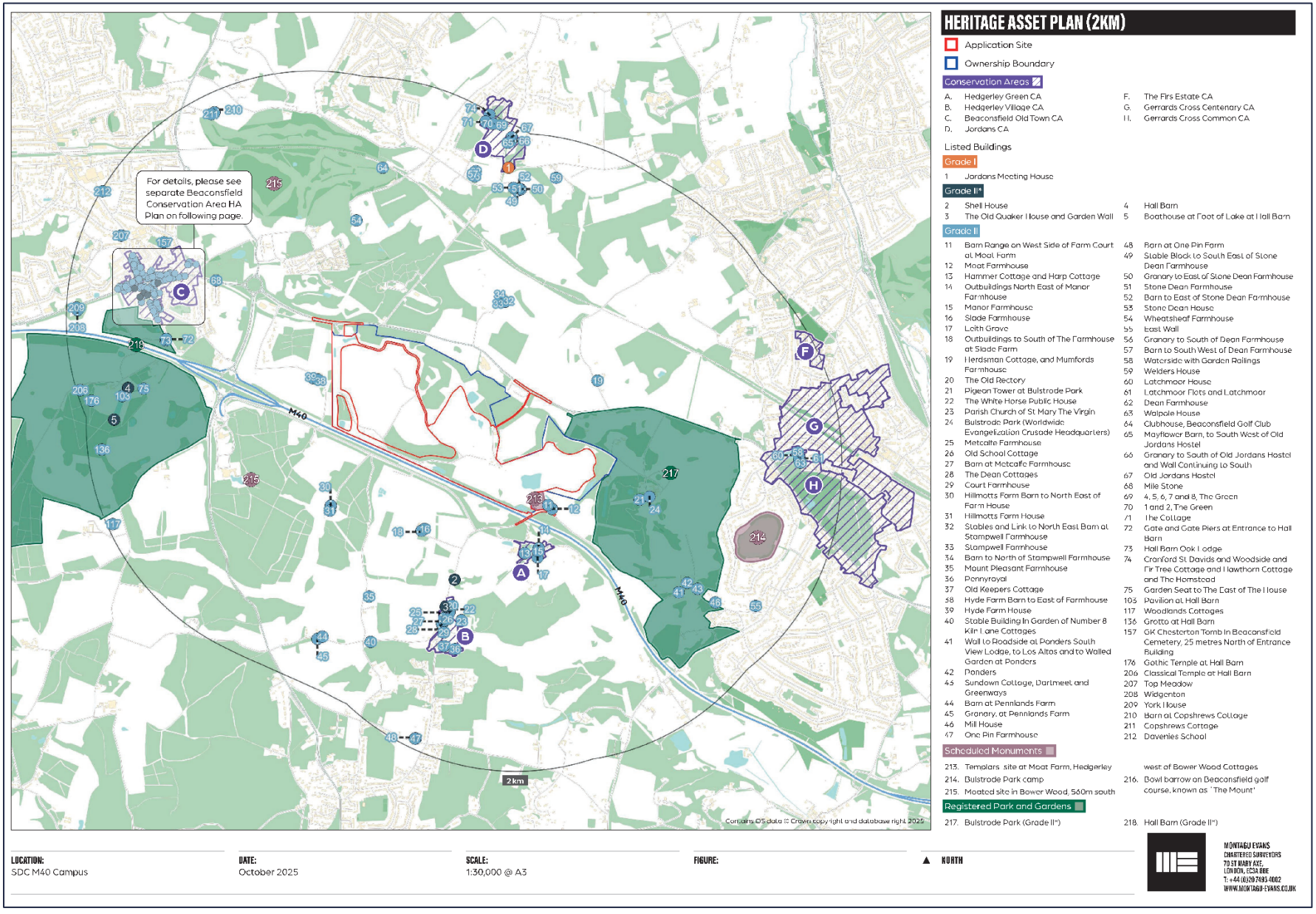
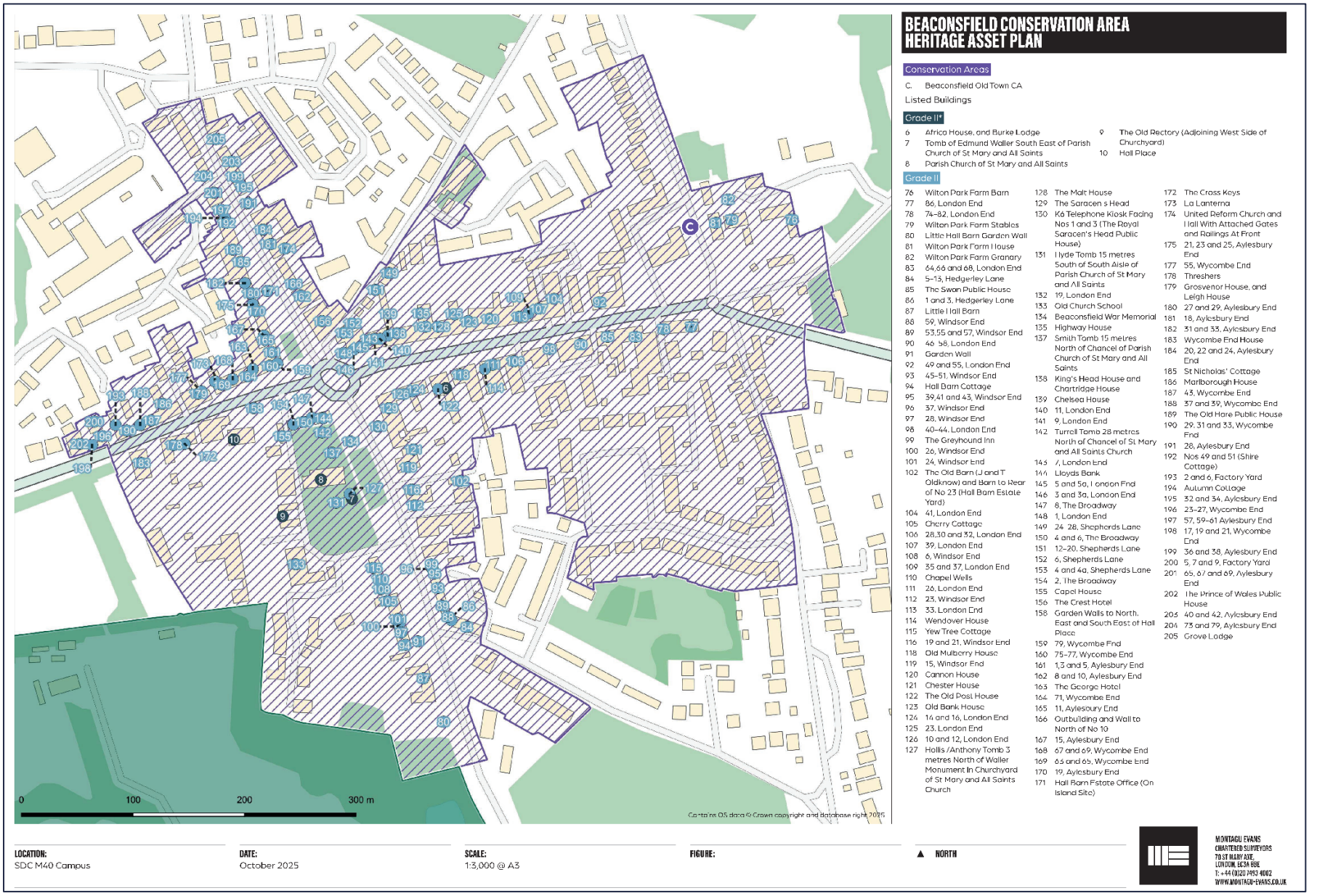


Figure 10 Beaconsfield Conservation Area Heritage Plan



6.6.39. The identification of built heritage receptors has been informed by primary and secondary resources, including:

a. The National Heritage List for England ('NHLE');
b. The Statutory Development Plan;
c. Conservation Area Appraisals (where relevant);
d. Buckinghamshire Council's Local List (June 2024); and
e. Site observations, obtained during site walkovers.

Future Baseline Conditions

6.6.40. The built heritage assessment will also consider the likely future baseline conditions of the Site, in the absence of the Proposed Development.

6.6.41. Under both existing and pending commitments, the future baseline of the Site would involve the restoration of the existing landfill under an approved restoration plan (Ref: P22-3044_EN_10H) and the pending restoration plan sought for approval as part of the pending Section 73 application (CM/0031/23). This would involve the retention of some existing open mosaic habitat and the creation of new areas of scrub and grassland to cap the landfill. Existing ponds at the Site margins would be retained in-situ. The habitats within the Site would also be managed positively for nature.

6.6.42. The Built Heritage ES Chapter will assess the Proposed Development and likely significant effects arising in the context of the 'Current Baseline Conditions', as well as the 'Future Baseline Conditions', with specific reference to the approved and pending restoration plans in order to consider the realistic worst-case assessment scenario.

6.6.43. In the future baseline condition, the M40 continues to form an urbanising element in the setting of the Templars' site at Moat Farm Schedule Monument and the nearby listed buildings, as well as Bulstrode Park Registered Park and Garden and the Hedgerley Green Conservation Area.

Receptors

6.6.44. Built heritage receptors include world heritage sites, listed buildings, scheduled monuments (with upstanding remains), conservation areas, registered parks and gardens and non-designated heritage assets, such as locally listed buildings.

6.6.45. The heritage impact assessment will assess the likely effects of the Project on 'built' or 'above ground' heritage receptors.

6.6.46. The Site is also located within proximity to a below ground Scheduled Monument (the Templars site at Manor Farm). While the Scheduled Monument comprises buried heritage, owing to the Site's location relative to the Scheduled Monument, and how the setting of the Scheduled Monument is experienced in the context of the Grade II listed Moat Farmhouse, the assessment will also consider whether the Proposed Development will give rise to any indirect significant effects on its heritage value, by virtue of a change to setting.

6.6.47. As discussed above, the Site itself does not contain any heritage receptors. It is, however located within the vicinity of several heritage receptors, with the closest being the Templar's site at Moat Farm Scheduled Monument, which is situated adjacent to the south-eastern boundary of the Site.

6.6.48. Following site surveys, which involved visiting all heritage receptors identified within the 3km radius, it was concluded that many of the heritage receptors within such a wide area did not share a setting relationship with the Site, being physically and functionally separate from it. Such a finding was largely due to a lack of shared intervisibility with the Site and the receptor, due to separating distance, typography and intervening built development and vegetation. Where receptors were located at a considerable distance and owing to the extent of intervisibility and intervening development, it was concluded that the introduction of the Proposed Development would not give rise to a material setting

impact and would consequently not result in an effect on their heritage value. Such receptors are, therefore, to be scoped out from further assessment.

6.6.49. Utilising the information from the ZTV, as well as professional judgement, additional heritage receptors within the 2km radius were scoped out of the assessment due to a lack of shared setting relationship with the Site and a lack of intervisibility between the existing site. The heritage receptors to be included within the heritage impact assessment are included in Table 43 below. They have been identified and are to be included within the heritage impact assessment owing to the potential to experience a material change to their setting, and by extension, a change to their heritage value and possible significant effects.

6.6.50. The heritage receptors to be 'scoped in' to the heritage impact assessment are included at Table 43 below, with their location included on the 2km Heritage Asset Plan at Figure 9.

Table 43 Heritage receptors 'scoped in' to the Built Heritage ES Chapter

Map Ref	Heritage Receptor	Designation
Scheduled Monument		
213	Templars' site at Moat Farm, Hedgerley	N/A
Registered Park and Garden		
217	Bulstrode Park Registered Park and Garden	Grade II*
Conservation Areas		
A	Hedgerley Green Conservation Area	N/A
B	Hedgerley Village Conservation Area	N/A
Listed Buildings		
11	Barn Range on West Side of Farm Court at Moat Farm	Grade II
12	Moat Farmhouse and Ancillary Barns	Grade II
13	Hammer Cottage and Harp Cottage	Grade II
14	Outbuildings North East of Manor Farmhouse	Grade II
15	Manor Farmhouse	Grade II
17	Leith Grove	Grade II
21	Pigeon Tower at Bulstrode Park	Grade II
24	Bulstrode Park (Worldwide Evangelization Crusade Headquarters)	Grade II
38	Hyde Farm Barn to East of Farmhouse	Grade II
39	Hyde Farm House	Grade II

6.6.51. On the south-east boundary of the Site is the Templars' site at Moat Farm Scheduled Monument and the Grade II listed Moat Farmhouse and ancillary barn. The setting of these heritage receptors has been significantly altered through the introduction of modern infrastructure, including the M40 motorway that lies approximately 75m south. Although the M40 is not readily visible from within the immediate setting context of the Scheduled Monument and listed Farmhouse and Barns, one is aware of its presence through traffic noise, which is both an intrusive and distracting feature.

6.6.52. Located approximately 400-500m from the western boundary of the Site is Bulstrode Park Registered Park and Garden. Within the Park and Garden is the Grade II listed House and Pigeon Tower. The area to the west of the park is characterised by dense woodland, limiting views westward towards the Site. Openings through the woodland afford views outside of the Registered Park and Garden, where there is an existing awareness of modern infrastructure, including electricity pylons, and whilst the immediate landscape setting is mostly fields, there is an awareness of the nearby M40 motorway through traffic noise.

6.6.53. Hedgerley Green Conservation Area is approximately 220m south of the Site and encompasses a hamlet formed of historic buildings, four of which are Grade II listed and date from the 17th and 18th centuries. Openings in the built form and mature trees to the north of the conservation area afford glimpsed views towards the Site to the north, though one is aware of the intervening M40 motorway through noise. Owing to the extent of vegetation, views of the Site are limited to non-existent, though the introduction of new built form across the Site may introduce visibility of new development, and therefore the conservation area will be scoped into the heritage impact assessment.

6.6.54. Hedgerley Village Conservation Area is situated 900m south of the Site. It is anticipated that due to the substantial separating distance, there will be no intervisibility between the conservation area and the Proposed Development. However, the Site forms part of the wider setting of the conservation area, the two of which can be viewed in conjunction with one another when stood on higher topography to the north-west of the conservation area. The Heritage Assessment will therefore include an assessment of the Hedgerley Village Conservation Area and identify any potential significant effects arising on its value by virtue of a change to setting.

6.6.55. Located approximately 95m west of the Site are two Grade II listed buildings associated with Hyde Farm which date to the 18th century. The setting of these buildings is altered due to later development to the immediate east of the building and the presence of the M40 motorway, which is situated approximately 296m south of the buildings. Whilst planting limits intervisibility between the M40 and the farm, traffic noise is notable, creating an urbanising presence within the wider setting context of the listed buildings. That being said, much of the setting of the buildings retains its open, undeveloped character (to the southwest and north/northwest), reflecting the original historic context of the farmstead.

Defining Receptor Sensitivity

6.6.56. The sensitivity of heritage receptors will be assessed through consideration of their value and susceptibility to change. The process for determining receptor sensitivity is set out in the *Assessment Methodology* section below.

Assessment of Effects

6.6.57. The ES shall:

a. Define the built heritage baseline conditions;

b. Identify relevant built heritage receptors; and

c. Assess:

   i. The potential for built heritage impacts throughout the enabling and construction works and as a result of the completed development and resultant built heritage effects.

   ii. The likely significant built heritage effects.

   iii. Any required mitigation or monitoring to address any likely significant adverse built heritage effects; and

   iv. The potential for cumulative effects in relation to built heritage receptors, with cumulative schemes in the surrounding area agreed upon with the Local Planning Authority and key stakeholders during pre-application engagement.

6.6.58. Assessments will be provided for the following potential impacts, where it is considered significant effects are likely to arise as a result of the Proposed Development:

a. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) throughout the Enabling and Construction works of the Proposed Development;

b. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) following the Completion of the Proposed Development;

c. Any required mitigation or monitoring to address any likely significant adverse built heritage effects; and

d. The potential for cumulative effects in relation to built heritage with other agreed upon schemes in the surrounding area.

Enabling and Construction

6.6.59. There are a number of built heritage receptors in the surrounding area (see Heritage Asset Plan at Figure 9 and Scoped In receptors noted in Table 43). The enabling and construction activities may cause indirect effects to built heritage receptors as a result of a change to the receptor's setting. This will largely be limited to visibility of equipment associated with enabling and construction (cranes, hoardings, etc.).

6.6.60. The potential effects at this stage on heritage receptors located close to the Site could also include environmental effects such as noise, dust and vibration. Due to separating distance, there will be limited potential for environmental impacts such as noise, dust and vibration on a number of the heritage receptors within the study area. Where appropriate, an assessment of the impacts to individual heritage receptors will be carried out and will take into account the phasing of enabling and construction activities as they relate to different parts of the Site's setting.

6.6.61. The activities related to enabling and construction described above are most likely to affect the Templar's site at Moat Farm Scheduled Monument, the Grade II listed Moat Farmhouse and the barn range on the west side of Farm Court at Moat Farm, due to their proximity to the Site. The built heritage assessment will be qualitative and informed by the respective chapters for each discipline. The receptors which are further from the Site are less likely to experience effects as a result of the distance, limited or no intervisibility, and interposing development and vegetation.

6.6.62. The visual character and effects of the process would alter at different times of the day and through the different phases of the enabling and construction work, and so it is not possible to accurately represent the process in the verified views.

6.6.63. None of the effects resulting from the process, apart from those associated with the completed Proposed Development, would continue beyond the construction process of the whole scheme and so the resultant effects from this stage are temporary. It is therefore considered appropriate for the built heritage assessment to consider the effects of the completed Proposed Development in greater detail than those of enabling and construction because those effects will be permanent and long term.

Completed Development

6.6.64. When the Proposed Development is completed and operational it is likely to give rise to an indirect effect to identified heritage receptors by virtue of a change in their setting. Having regard to separating distances, there is potential for there to be significant effects in the context of the Templars' site at Moat Farm and the listed Farmhouse and Barns at Moat Farm, owing to a change to setting and the Proposed Development introducing an urbanising feature through the introduction of new development within the immediate setting context of the receptors. A significant effect may result from a change in land character from open, undeveloped land to the north, to land accommodating built form and important infrastructure.

6.6.65. Considerable care and attention will be given to the access, form, layout and architectural detailing of the Proposed Development (where possible) and accompanying landscape features to mitigate and reduce potential indirect impacts and ultimately the potential effects arising on the receptor groups situated within the identified study area.

6.6.66. With regard to receptors within the broader locality and those identified in Table 43, the Proposed Development may give rise to indirect significant effects in relation to their heritage value as a consequence of a change to their broader setting contexts. Such effects will largely be derived from intervisibility between the receptor and new built form, visible beyond the immediate setting of the asset,

with potential for such built form to alter/ change how the receptor is experienced within its wider setting context. This includes visibility of new built form in views west from the Registered Park and Garden of Bulstrode Park, including in views from within the Registered Park and Garden, views north from within and out of the Hedgerley Green Conservation Area and from elevated viewing locations on the periphery of the Hedgerley Village Conservation Area.

Assessment Methodology

Accurate Visual Representations and Visual Aids

6.6.67. The assessment will be supported by a suite of Accurate Visual Representations (AVRs or verified views), which provide the basis for the assessment of the Proposed Development and its effect on the identified views.

6.6.68. The AVRs will be prepared to industry standard by independent visualisation consultants and will be prepared in accordance with national best practice guidance, including the Landscape Institute's (LI) Technical Guidance Note 06/19 Visual Representation of Development Proposals (2019). The AVRs will be produced for the Completed Development at both operation year 1 and operation year 15. The numbers and types of AVRs, their viewpoint locations, the methodology for their preparation and the cumulative schemes to be included will be reviewed and agreed with the Local Planning Authority and statutory consultees through the pre-application process.

6.6.69. A set of preliminary viewpoints has been identified within Appendix 2: LVIA, with viewpoints selected through a consultation with landscape professionals, with a number of viewpoints selected to aid in the assessment of potential effects on identified heritage receptors.

6.6.70. The assessment methodology is the product of best practice and policy requirements informed by guidance.

Heritage

6.6.71. The methodology for assessment of heritage effects will be prepared using the principles set out in relevant legislation and policy. The assessment will take into consideration relevant planning guidance and any material considerations, including:

a. National Planning Practice Guidance (online);
b. Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA) (2013);
c. An Approach to Landscape Character Assessment (2014);
d. TGN 06/19 Visual Representation of Development Proposals Technical Guidance Note (2019), prepared by Landscape Institute;
e. Historic England, Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (2015);
f. Historic England, Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017);
g. Historic England Advice Note 4: Tall Buildings (2022);
h. IEMA, CIfA and IHBC Principles for Cultural Heritage Impact Assessment (2021);
i. National Design Guide (2019);
j. Buckinghamshire Council, Historic Environment Record(s) (HER);
k. Buckinghamshire County Council, South Bucks District Council, Land Use Consultants, South Bucks District Landscape Character Assessment (2011), and;
l. Buckinghamshire Council, Hedgerley Village Conservation Area Appraisal.

Heritage Value

6.6.72. Planning policy requires an applicant to describe the significance of any heritage receptors affected by a proposed development, including any contribution made by their setting. 'Significance' (for heritage policy) is defined in the NPPF Annex 2 as:

"the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting."

6.6.73. As noted, the term 'heritage value' is interchangeable in this assessment with 'heritage significance' and has been adopted to avoid conflation between 'EIA significance'. Heritage value is assessed against the criteria contained in Table 43 and is informed by the suite of policy and guidance documents noted above, including guidance documents prepared by Historic England. The categories set out within the table allow some flexibility in their practical application to the facts of any case. The typical examples for each category are indicative, mindful that the buildings/sites/areas cover a wide spectrum of character, history, features, and group relationships. The reader is referred to the qualitative assessment which outlines the particular nature of the value.

Table 44 Heritage Value Criteria

Heritage Value		
Value	**Typical Criteria**	**Typical Examples**
Very High	Building/site/area of international heritage value	World Heritage sites, grade I statutorily listed buildings and registered parks and gardens, and some scheduled monuments, grade II* statutorily listed buildings and registered parks and gardens.
High	Building/site/area of national heritage value	Some scheduled monuments, Grade II* and II registered parks and gardens, grade II* and II statutorily listed buildings and conservation areas.
Medium	Building/site/area of lower national or particular local heritage value	Some grade II registered parks and gardens, grade II statutorily listed buildings and conservation areas.
Low	Building/site/area of local heritage value	Locally listed buildings (or equivalent non-designated heritage assets).
Very Low	Building/site/area of low local heritage value	Receptors not formally identified, but which may have a degree of value meriting consideration in planning decisions

6.6.74. Paragraph 207 of the NPPF states that the "*level of detail* [to describe the significance of heritage assets] *should be proportionate to the assets' importance*". Great weight has been given to the conservation of all designated heritage receptors, although a gradation of value is appropriate. This is reinforced by the 2018 DCMS Principles for Selection of Listed Buildings which states *"listed buildings are graded to reflect their relative special architectural and historic interest":*

a. *"Grade I buildings are of exceptional special interest;*
b. *Grade II* buildings are particularly important buildings of more than special interest;*
c. *Grade II buildings are of special interest, warranting every effort to preserve them."*

6.6.75. The value of heritage receptors may be expressed with reference to their historical or architectural value identified in the Planning (Listed Buildings and Conservation Areas) Act 1990 (the '1990 PLBCA Act'), or the other values set out in the NPPF: archaeological, architectural, artistic or historic. For World Heritage sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its value.

6.6.76. Where a proposal may affect the surroundings in which the heritage receptor is experienced, a qualitative assessment is made of whether, how and to what degree setting contributes to the value of heritage receptors. The assessment is informed by the check-list approach contained in Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017) (hereafter 'GPA3'). Setting is defined in the NPPF as:

6.6.77. *"The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a 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."*

6.6.78. The heritage baseline articulates the contribution made by relevant aspects of setting towards value. Again, the level of detail is proportionate to the receptors' importance and no more than is sufficient to understand the potential impact of the proposal to their value; however, each heritage receptor's susceptibility to change derives from the particular nature of its heritage value, the existing character of its setting and the type of development proposed. The baseline assessment therefore describes what is sensitive about each heritage receptor and its setting without providing a sensitivity rating, which follows later in the assessment stage.

Heritage Sensitivity

6.6.79. The first stage in assessing the impact of the Proposed Development upon the heritage value of a receptor is to identify its sensitivity to change. Sensitivity is identified by calibrating the baseline value of the receptor with its susceptibility to change, defined as the ability of the heritage receptor to accommodate the type and/or nature of development without change to its value (see Table 44). In relation to heritage setting, paragraph 17 of GPA3 provides guidance on the relationship between heritage value and the potential impact of development upon that value by virtue of changes to its setting:

"All heritage assets have significance, some of which have particular significance and are designated. The contribution made by their setting to their significance also varies. Although many settings may be enhanced by development, not all settings have the same capacity to accommodate change without harm to the significance of the heritage asset or the ability to appreciate it. This capacity may vary between designated assets of the same grade or of the same type or according to the nature of the change. It can also depend on the location of the asset: an elevated or overlooked location; a riverbank, coastal or island location; or a location within an extensive tract of flat land may increase the sensitivity of the setting (i.e. the capacity of the setting to accommodate change without harm to the heritage asset's significance) or of views of the asset. This requires the implications of development affecting the setting of heritage assets to be considered on a case-by-case basis."

6.6.80. Cases of direct changes to the fabric of heritage receptors may be more likely to be susceptible to change, although this may be moderated according to the facts of the case. The qualitative text will clearly articulate where any deviation is made from this judgement.

Table 45 Susceptibility of Heritage Receptor to Change Criteria

Heritage Susceptibility to Change Criteria	
High	The setting of the receptor or receptor itself has a low ability to accommodate the type of change without change to its value.
Medium	The setting of the receptor or receptor itself has a moderate ability to accommodate the type of change without change to its value.
Low	The setting of the receptor or receptor itself has a high ability to accommodate the type of change without change to its value.

6.6.81. The value of the receptor and its susceptibility are calibrated using the matrix at Table 46. Sensitivity is recorded in a verbal scale (high, medium or low), supported by a clear narrative linked to evidence from the baseline study and an assessment of susceptibility.

Table 46 Heritage Sensitivity (Nature of Receptor Likely to be Affected)

Heritage Sensitivity			
Receptor Value	Susceptibility of Receptor to Change		
	Low	Medium	High
Very Low	Low	Low	Low/Medium
Low	Low	Low/Medium	Medium
Medium	Low/Medium	Medium	Medium/High
High	Medium	Medium/High	High
Very High	Medium/High	High	High

Heritage Magnitude

6.6.82. The magnitude of change to the receptors' heritage value is then considered. In relation to setting impacts, although the change arising from the Proposed Development may be large in physical scale or geographical extent, there may nonetheless be little or no impact on heritage value, and vice versa. The heritage impacts of the Proposed Development will be considered in relation to the degree of change caused to those parts of the receptor and/or its setting which contribute to its heritage value.

6.6.83. The judgement of magnitude considers the size or scale, geographical extent or duration and reversibility of the impact and whether the Proposed Development:

a. Conforms with the pattern, scale, mass, grain and historic features of the receptor;

b. Creates a loss or restoration of key features of the receptor;

c. Contributes to the identified receptor character; and

d. Accords with national, regional and local planning policy and guidelines.

6.6.84. The magnitude of impact is a qualitative judgement supported by the narrative text within the assessment. The professional judgement is made using criteria at Table 47.

Table 47 Magnitude of Impact to Heritage Receptor Criteria

Heritage Magnitude of Impact	
High	Major change to the value of the receptor. Loss of or major alteration to key elements/features/characteristics that contribute to value. The duration of this impact may be permanent and non-reversible.
Medium	Moderate change to the value of the receptor. Alteration to one or more key elements/features/characteristics that contribute to value. The duration of this impact may be semi-permanent and partially reversible.
Low	Minor change to the value of the receptor. Minor alteration to one or more elements/features/characteristics that contribute to value. The duration of this impact may be temporary and reversible.
Very Low	Negligible change to the value of the receptor. Very minor alteration to one or more key elements/features/characteristics of the baseline. The duration of this impact may be temporary and reversible.
Nil	No change to the value of the receptor.

Heritage Likely Effects

6.6.85. Likely effects are determined by combining the judgements of sensitivity and the magnitude of impact (Table 48). It is generally considered that moderate to major effects are 'significant' in the context of the EIA Regulations. Effects that are minor and below are considered not significant, and moderate and above are significant. Each assessment will provide justification for whether the identified effect is considered significant. This will be supported by the qualitative text supporting each assessment.

Table 48 Likely Effect on Heritage Receptor Matrix

Heritage Likely Effect on Receptor			
Magnitude	**Sensitivity**		
	Low	**Medium**	**High**
Nil	None	None	None
Very Low	Negligible	Negligible	Negligible / Minor
Low	Minor	Minor / Moderate	Moderate
Medium	Minor / Moderate	Moderate	Moderate / Major
High	Moderate	Moderate / Major	Major

6.6.86. The scale of effect requires a qualitative discussion to describe and elucidate this judgement to the reader. This is necessary because heritage assessment is not a strict quantitative process and some of these considerations will depend on expert judgements. Accordingly, there is an emphasis on qualitative text throughout the assessment to describe the receptors and the judgements in regard to the significance of the identified effects.

6.6.87. Criteria defining the scale of effect is provided at Table 49.

Table 49 Scale of Effect

Heritage Scale of an Effect	
Major	The change resulting from the impact of the Proposed Development upon the heritage value of the receptor would give rise to a very significant effect.
Moderate	The change resulting from the impact of the Proposed Development upon the heritage value of the receptor would give rise to a significant effect.
Minor	The change resulting from the impact of the Proposed Development upon the heritage value of the receptor would give rise to an effect, but this would not be significant.
Negligible	The change resulting from the impact of the Proposed Development upon the heritage value of the receptor would give rise to a barely discernible effect. This would not be significant.
None	The change resulting from the impact of the Proposed Development upon the heritage value of the receptor would have no effect.

6.6.88. Professional judgement is also required to determine the nature of the likely effects. For example, there will be cases where a high magnitude of impact produces a major scale of effect, on the basis that the component is prominent or noticeable, but notwithstanding that the quality of effect is beneficial as a consequence of design quality or other benefits. This approach arises most often as a consequence of major developments in areas positively identified for transformational change. Often, such impacts will have varied effects such that a hard and fast categorisation is finely balanced as between beneficial or harmful. In many instances, therefore, the final identification of impact and effect will turn on discursive analysis.

6.6.89. The assessment also considers whether the likely effect is:

a. Direct or indirect;

b. Permanent or temporary; and

c. Short (c.0-2 years) medium (c.2-5 years) or long term (5+ years).

6.6.90. Criteria defining the nature of effect is provided at Table 50.

Table 50 Nature of Effect

Heritage Nature of an Effect	
Beneficial	An enhancement to a receptor
Neutral	An effect that on balance, is neither beneficial nor adverse to a receptor, and therefore preserves the receptor.
Adverse	A harmful impact to a receptor

6.6.91. In relation to the Project, there is potential for effects concerning the surroundings in which the heritage receptor is experienced. Concerning such effects, a qualitative assessment will be made of whether, how and to what degree setting contributes to the value of relevant heritage receptors. The assessment will be informed by the check-list approach contained in Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017) (hereafter 'GPA3'). Setting is defined in the NPPF (2025) as:

"The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a 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."

6.6.92. Enabling and Construction phase heritage impacts generally attract less weight in the planning decision making process, because heritage values endure over a much longer period than construction impacts which are indirect and temporary. The more important effects for the purposes of the assessment of potential effects on built heritage receptors are permanent ones, arising from the Completed Development phase of the Project.

6.6.93. The heritage baseline will articulate the contribution made by relevant aspects of setting towards value. Again, the level of detail will be proportionate to the receptors' importance and no more than is sufficient to understand the potential impact of the Project to their value; however, each heritage receptor's susceptibility to change derives from the particular nature of its heritage value, the existing character of its setting and the type of development proposed. The baseline assessment will therefore describe what is sensitive about each heritage receptor and its setting, without providing a sensitivity rating, which will follow later in the assessment stage.

Cumulative Effects

6.6.94. In accordance with the Planning Inspectorate's Advice Note on Cumulative Effects[175], a long list of cumulative schemes will be identified for the Zone of Influence as set out above under 'Study Area', considering Tier 1, Tier 2 and Tier 3 developments. Consideration will then be given as to whether or not the identified developments should progress to the assessment of cumulative effects based on their presence (or otherwise) within the ZVI for heritage. This will be clearly documented in the ES. Information on the development scoped into the cumulative effects assessment will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country Planning development and the Planning Inspectorate's register for DCO developments). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3.

6.6.95. The methodology for assessing heritage cumulative effects for Tier 1 and Tier 2 developments will be broadly the same as that used for the assessment of the stand-alone effects, i.e. the significance of effect will be determined by assessing the sensitivity of the receptor in combination with the magnitude of change. The cumulative effects assessment taking into consideration any Tier 3 development will be more qualitative as detailed information for these projects is unlikely to be available.

[175] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available from: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment. Accessed: 13 November 2025.*

Decarbonisation Readiness

6.6.96. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion.

6.6.97. Hydrogen Conversion does not materially influence the built heritage impacts or assessment. This is due to the basis of the assessment not materially changing as a result of the adoption of Hydrogen Conversion.

Mitigation

6.6.98. For the purposes of scoping, the following design assumptions have been made:

a. Measures proposed to prevent, reduce or where possible offset any adverse likely effects on heritage receptors will be identified and developed as part of the design process. Primary mitigation measures, including architectural, will become embedded into the Proposed Development, commonly referred to as embedded mitigation.

b. The likely effects of the Proposed Development will include consideration of embedded mitigation. As a result, there may be no requirement for additional mitigation. If this is the case, likely residual effects would remain the same as the likely effects, unless otherwise stated.

Impacts to be Scoped Out

6.6.99. The following impacts have been identified and are not considered to have the potential to give rise to significant effects. This is largely owing to the distances associated with the identified impact (i.e. identifying heritage receptors beyond a 2km study area), or following on-site and desk-based research, which has determined that the Proposed Development will not give rise to a significant effect in relation to the value of identified receptors.

6.6.100. The impacts noted below will not be considered further within the ES.

a. Changes to setting and effects on value of heritage receptors beyond a 2km study area during Enabling and Construction Works;

b. Changes to setting and effects on value of heritage receptors beyond a 2km study area following the Completion of the Proposed Development; and

c. Change to setting and effects on value of heritage receptors within a 2km radius, though deemed not to have the potential to experience a likely significant effect. This includes those receptors associated with and located within the Beaconsfield Conservation Area (see Figure 10), or those receptors located within the surrounding locality and identified in Figure 8 and not taken forward to Table 43. The scoping-out of such assets has been determined owing to nature and scale of the Proposed Development, which will either be screened from view from the heritage receptor, or represents a change which will not result in a material change to how one experiences the value (significance) of the heritage receptor, and therefore the value of the receptor will remain unaffected.

Summary

6.6.101. Table 51 summarises the likely effects in relation to Built Heritage identified for inclusion in the ES for assessment against the existing baseline conditions.

Table 51 Summary of Built Heritage Scope of Assessment

Map Ref	Receptor	Potential Effect to be Assessed within the ES	Scoped In
Scheduled Monument			
213	Templars' site at Moat Farm, Hedgerley	a. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) throughout the Enabling and Construction works of the Proposed Development;	Yes

Map Ref	Receptor	Potential Effect to be Assessed within the ES	Scoped In
		b. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) following the Completion of the Proposed Development. c. Any required mitigation or monitoring to address any likely significant adverse built heritage effects. d. The potential for cumulative effects in relation to built heritage with other agreed upon schemes in the surrounding area.	
Registered Park and Garden			
217	Bulstrode Park Registered Park and Garden	a. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) throughout the Enabling and Construction works of the Proposed Development; b. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) following the Completion of the Proposed Development; c. Any required mitigation or monitoring to address any likely significant adverse built heritage effects; and d. The potential for cumulative effects in relation to built heritage with other agreed upon schemes in the surrounding area.	Yes
Conservation Areas			
A	Hedgerley Green Conservation Area	a. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) throughout the Enabling and Construction works of the Proposed Development; b. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) following the Completion of the Proposed Development; c. Any required mitigation or monitoring to address any likely significant adverse built heritage effects; and d. The potential for cumulative effects in relation to built heritage with other agreed upon schemes in the surrounding area.	Yes
B	Hedgerley Village Conservation Area		
Listed Buildings			
11	Barn Range on West Side of Farm Court at Moat Farm	a. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) throughout the Enabling and Construction works of the Proposed Development; b. The potential for indirect built heritage effects owing to a change to setting of designated heritage receptors (those identified in Table 43) following the Completion of the Proposed Development; c. Any required mitigation or monitoring to address any likely significant adverse built heritage effects and d. The potential for cumulative effects in relation to built heritage with other agreed upon schemes in the surrounding area.	Yes
12	Moat Farmhouse and Ancillary Barns		
13	Hammer Cottage and Harp Cottage		
14	Outbuildings North East of Manor Farmhouse		
15	Manor Farmhouse		
16	Leith Grove		
17	Pigeon Tower at Bulstrode Park		
18	Bulstrode Park (Worldwide Evangelization Crusade Headquarters)		

Map Ref	Receptor	Potential Effect to be Assessed within the ES	Scoped In
19	Hyde Farm Barn to East of Farmhouse		
20	Hyde Farm House		

6.7. LANDSCAPE AND VISUAL IMPACT

Introduction

6.7.1. It is considered that there is the potential for likely significant effects relating to Landscape and Visual and so this topic shall be '**scoped in**' to the EIA. The landscape and visual assessment will be undertaken by Scarp Landscape Architecture Limited.

6.7.2. The Landscape and Visual impact assessment (LVIA) will assess the potential landscape and visual effects of the Proposed Development. Landscape effects are defined as changes to landscape elements, characteristics, character, and qualities of the landscape as a result of development. Visual effects are a subset of landscape effects and relate to the changes that arise in the composition of views as a result of changes to the landscape, to people's responses to the changes, and to the overall effects with respect to visual amenity.

Policy, Legislation and Guidance

Legislation

6.7.3. The following legislation will underpin the LVIA process:

a. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017;

b. The Environment Act 2021; and

c. The Countryside and Rights of Way Act 2000 (which sets out legislation relating to, amongst other things, PRoW and public access to the open countryside).

Guidance

6.7.4. Guidance on landscape and visual matters is set out in the following documents, in addition to those considered in the 'Planning Policy and Guidance' section:

a. National Planning Practice Guidance[176];

b. National Design Guide: Planning practice guidance for beautiful, enduring and successful places[177];

c. Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA 3)[178];

d. An Approach to Landscape Character Assessment, Natural England, October 2014[179];

e. An approach to landscape sensitivity assessment – to inform spatial planning and land management, Natural England, 2019[180];

f. Assessing landscape value outside national designations, Landscape Institute Technical Guidance Note (TNG) 02/21[181];

g. Landscape Institute (LI) Technical Guidance Note 06/19 Visual Representation of Development Proposals, September 2019[182];

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[176] *Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities, National Planning Practice Guidance (updated on 4 February 2024)*

[177] *Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities, National Design Guide: Planning practice guidance for beautiful, enduring and successful places (Last updated 30 January 2021)*

[178] *Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013)*

[179] *Natural England, An Approach to Landscape Character Assessment (October 2014)*

[180] *Natural England, An approach to landscape sensitivity assessment – to inform spatial planning and land management (2019)*

[181] *Landscape Institute, Assessing landscape value outside national designations, Landscape Institute Technical Guidance Note 02/21 (May 2021)*

[182] *Landscape Institute, Landscape Institute Technical Guidance Note 06/19 Visual Representation of Development Proposals (September 2019)*

h. Residential Visual Amenity Assessment, Landscape Institute Technical Guidance Note 2/19, March 2019[183];

i. South Bucks District Landscape Character Assessment, October 2011[184];

j. Chiltern District Landscape Character Assessment, October 2011[185];

k. Natural England – National Character Area Profiles[186];

National Planning Policy

National Policy Statements

l. Overarching National Policy Statement (NPS) for Energy (EN-1)[187];

m. NPS for Natural Gas Electricity Generating Infrastructure (EN-2)[188];

National Planning Policy Framework

6.7.5. Paragraph 7 of the National Planning Policy Framework states that "The purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development and supporting infrastructure in a sustainable manner."

6.7.6. Paragraph 8 states that achieving sustainable development means that the planning system has three overarching objectives: economic, social, and environmental. The environmental objective states "*The purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development and supporting infrastructure in a sustainable manner*."

6.7.7. Paragraph 9 states that "Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area."

6.7.8. Paragraph 39 states that "Local planning authorities should approach decisions on proposed development in a positive and creative way. They should use the full range of planning tools available, including brownfield registers and permission in principle, and work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area…".

6.7.9. Section 6 sets out policies on how to build a strong and competitive economy and states at Paragraph 86 (c) that planning policies should "*pay particular regard to facilitating development to meet the needs of a modern economy, including by identifying suitable locations for uses such as laboratories, gigafactories, data centres, digital infrastructure, freight and logistics*;"

6.7.10. Paragraph 87 states that "Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for: a) clusters or networks of knowledge and data-driven, creative or high technology industries; and for new, expanded or upgraded facilities and infrastructure that are needed to support the growth of these industries (including data centres and grid connections);…"

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[183] *Landscape Institute, Residential Visual Amenity Assessment, Landscape Institute Technical Guidance Note 2/19 (March 2019)*
[184] *South Bucks District Landscape Character Assessment, Buckinghamshire County Council and South Bucks District Council by Land Use Consultants (October 2011)*
[185] *Chiltern District Landscape Character Assessment, Buckinghamshire County Council and Chiltern District Council by Land Use Consultants (October 2011)*
[186] *Natural England – National Character Area Profiles (https://nationalcharacterareas.co.uk/). Accessed: 13 November 2025.*
[187] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1), 2025. Available: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025. Accessed: 15 January 2025.*
[188] *DESNZ (2024) National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2). Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147381/NPS_EN-2.pdf. Accessed: 15 September 2025.*

6.7.11. Section 11 sets out policies on making effective use of land and states at Paragraph 124 that "Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or 'brownfield' land49." [Footnote 49 states "Except where this would conflict with other policies in this Framework, including causing harm to designated sites of importance for biodiversity."]

6.7.12. Paragraph 125 states that planning policies and decisions should:

a. *"a) encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside;*

b. *b) recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production;*

c. *c) give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, proposals for which should be approved unless substantial harm would be caused"*

6.7.13. Paragraph 135 states, amongst other things, that:

6.7.14. "*Planning policies and decisions should ensure that developments:*

a. *a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;*

b. *b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*

c. *c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);*

d. *d) establish or maintain a strong sense of place…;"*

6.7.15. Paragraph 142 states that:

6.7.16. "*The Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence."*

6.7.17. Paragraph 143 states that:

6.7.18. "Green Belt serves five purposes:

a. *a) to check the unrestricted sprawl of large built-up areas;*

b. *b) to prevent neighbouring towns merging into one another;*

c. *c) to assist in safeguarding the countryside from encroachment;*

d. *d) to preserve the setting and special character of historic towns; and*

e. *e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land."*

6.7.19. Paragraph 148 states, amongst other things, that:

"Where it is necessary to release Green Belt land for development, plans should give priority to previously developed land, then consider grey belt which is not previously developed, and then other Green Belt locations."

6.7.20. Paragraph 151 states, amongst other things, that:

"Once Green Belts have been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land."

6.7.21. Paragraph 153 states, amongst other things, that:

"*When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt, including harm to its openness55. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations." [Footnote 55 states "Other than in the case of development on previously developed land or grey belt land, where development is not inappropriate."]*

6.7.22. Paragraph 155 states, amongst other things, that:

"The development of homes, commercial and other development in the Green Belt should also not be regarded as inappropriate where all the following apply:

a. *a. The development would utilise grey belt land and would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan;*

b. *b. There is a demonstrable unmet need for the type of development proposed;"*

6.7.23. The glossary in Annex 2 of the NPPF defines 'grey belt' as "*For the purposes of plan-making and decision-making, 'grey belt' is defined as land in the Green Belt comprising previously developed land and/or any other land that, in either case, does not strongly contribute to any of purposes (a), (b), or (d) in paragraph 143. 'Grey belt' excludes land where the application of the policies relating to the areas or assets in footnote 7 (other than Green Belt) would provide a strong reason for refusing or restricting development*." [Footnote 7 relates to "*habitats sites (and those sites listed in paragraph 189) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, a National Landscape, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 75); and areas at risk of flooding or coastal change*."]

6.7.24. Paragraph 187 states, amongst other things, that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by: …"

"b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;"

6.7.25. Paragraph 198 states, amongst other things, that:

"Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the Site or the wider area to impacts that could arise from the development. In doing so they should:……"

6.7.26. *"c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation."*

Local Planning Policy

South Bucks District Local Plan (Adopted March 1999 Consolidated September 2007 and February 2011)

GB1: Green Belt Boundaries and the Control over Development in the Green Belt

6.7.27. Local Plan Policy GB1 states that within the Green Belt, planning permission for the construction of new buildings will not be granted other than for certain uses such as agriculture, forestry, outdoor sports, outdoor recreation and cemeteries.

EP3: The Use, Design and Layout of Development

6.7.28. Local Plan Policy EP3 states, amongst other things, that:

"Development will only be permitted where its scale, layout, siting, height, design, external materials and use are compatible with the character and amenities of the Site itself, adjoining development and the locality in general. Poor designs which are out of scale or character with their surroundings will not be permitted."

EP4: Landscaping

6.7.29. Local Plan Policy EP4 states, amongst other things, that development proposals will be expected to:-

a. *"(a) incorporate appropriate hard and soft landscaping as an integral part of the development proposal; and*

b. *(b) take account of, and retain, existing planting and landscape features, which are or may become important elements in the character and appearance of the Site or the wider area; and*

c. *(c) where appropriate provide for the planting of appropriate additional trees and shrubs including native species and;*

d. *(d) make proper provision for the subsequent maintenance and retention of the existing and proposed planting."*

South Bucks Local Development Framework Core Strategy Development Plan Document (Adopted February 2011)

Core Policy 8: Built and Historic Environment

6.7.30. Core Policy 8 states, amongst other things, that:

a. *"The protection and, where appropriate, enhancement of the District's historic environment is of paramount importance."*

b. *"All new development must be of a high standard of design and make a positive contribution to the character of the surrounding area."*

c. *"New development should be designed to help tackle the causes of, and be resilient to the effects of, climate change".*

Core Policy 9: Natural Environment

6.7.31. Core Policy 9 states, amongst other things, that:

a. *"The highest priority will be given to the conservation and enhancement of the natural beauty of the Chilterns Area of Outstanding Natural Beauty, and the integrity of Burnham Beeches Special Area of Conservation" and "More generally, the landscape characteristics and biodiversity resources within South Bucks will be conserved and enhanced by:*

   i. *Not permitting new development that would harm landscape character or nature conservation interests, unless the importance of the development outweighs the harm caused, the Council is satisfied that the development cannot reasonably be located on an alternative site that would result in less or no harm and appropriate mitigation or compensation is provided, resulting in a net gain in Biodiversity."*

ii. *"Seeking the conservation, enhancement and net gain in local biodiversity resources within the Biodiversity Opportunity Areas, on other non-designated land, on rivers and their associated habitats, and as part of development proposals."*

iii. *"Conserving and enhancing landscapes, informed by Green Infrastructure Plans and the District Council's Landscape Character Assessment."*

Gerrards Cross Parish Neighbourhood Plan, 2017 to 2040 (Referendum Plan September 2025)

Policy 16: Trees and Landscape

6.7.32. Policy 16 states that:

a. *"a) Wherever practicable, development proposals should retain natural features including protected trees and hedgerows, and incorporate them sensitively within their layout and design.*

b. *b) Development proposals that would result in the loss of, or the deterioration in the quality of an important natural feature(s), including protected trees and hedgerows will not be supported. In exceptional circumstances, and where the benefit of the proposed development will outweigh the benefit of preserving natural features, development proposals will be supported where appropriate compensatory provision being made, including replacement provision of a commensurate value to that which would be lost.*

c. *c) Appropriate landscaping schemes will be required to mitigate against the landscape impact and complement the design of new development."*

Policy 17: Protection of Historic Environment

6.7.33. Policy 17 states, amongst other things, that:

a. *"a) Any designated historic heritage assets in the Parish and their settings, both above and below ground, will be conserved or enhanced for their historic and architectural significance and their importance to local distinctiveness, character and sense of place. Those of particular community value include:*

iv. *Bulstrode Camp Iron Age Hillfort*

v. *Bulstrode Park……"*

Baseline Conditions

Study Area

6.7.34. Preliminary digital Zone of Theoretical Visibility ('ZTV') maps have been prepared to identify the potential extent of visibility of the proposed buildings and to inform definition of a LVIA study area, and are shown in **Appendix 2: LVIA** of this Scoping Report.

6.7.35. Two types of ZTV maps have been prepared using LIDAR Digital Terrain Model data: (1) bare earth maps and (2) maps that incorporate surrounding buildings and vegetation, which have been based on approximate existing ground levels (85.0m AOD), preliminary layouts and preliminary maximum building heights for the Data Centre Campus buildings (121.15m AOD parapet height) and preliminary maximum heights for Data Centre and Energy Centre flues.

6.7.36. All maps extend up to a maximum 5km radius from the centre of the proposed built development area. Figure 1: Preliminary Bare Earth ZTV (see **Appendix 2: LVIA**) identifies the potential visibility of the proposed built form without factoring in the enclosure provided by off-site buildings and vegetation. Figure 2: Preliminary Development ZTV (**Appendix 2: LVIA**) identifies the potential visibility of the proposed built form with off-site buildings and vegetation incorporated into the buildings model.

6.7.37. This Preliminary Development ZTV does not take account of potential mitigation measures in the form of bunds and vegetation in peripheral parts of the Site. These ZTVs will be updated once the design proposals for the buildings, landform and vegetation within the Site have been finalised, but are considered suitable for determining the initial scope of the study area.

6.7.38. A study area based on a 3km radius from the approximate centre of the Site is proposed based on the ZTV mapping and field survey work that has identified that any potential landscape and visual effects beyond this distance are likely to be insignificant. In views obtained beyond 3km, the upper parts of any flues would be seen as distant background features and would not result in any significant visual change. This field survey work investigated the composition of potential views, the degree to which intervening buildings and vegetation would enclose views towards the Site, the presence of people within the ZTV and the visual effects of distance.

6.7.39. The ZTV prepared for the purpose of EIA Scoping (and therefore the Study Area and identified receptors to be scoped in to the Landscape and Visual Impact Assessment), have been based on early stages of design and will be updated as the design progresses. The ZTV, Study Area and scope of landscape and visual receptors to be scoped in to the EIA will be kept under review as further design information becomes available, and the Landscape and Visual Impact Assessment presented the ES will be based on the final design of the Proposed Development.

Site Description and Landscape Context

6.7.40. The Site abuts the M40 motorway and is located approximately, at its closest point, 1.1km east of Beaconsfield, 1.1km west of Gerrards Cross, and 1.5km southwest of Chalfont St Peter. The Main Development Area is located approximately 2.5km east of Beaconsfield and 1.5km west of Gerrards Cross. The A40 (Oxford Road) passes close to the northern site boundary, and the Princes Risborough to London railway runs broadly parallel to the A40 on its northern side.

6.7.41. The Site forms part of an extensive undulating plateau that includes farmland, parkland, small settlements, sporadic commercial properties, quarries and highways. The hamlet of Hedgerley Green and village of Hedgerley lie on the far side of the M40, approximately 0.5km and 1.5km south of the Site respectively. The villages of Seer Green and Jordans lie approximately 1.5km north of the Site. Elsewhere, settlement typically comprises a sporadic distribution of farmsteads and residential properties. The Beaconsfield Household Recycling Centre, the Crowne Plaza Hotel (Gerrards Cross), the Wapseys Wood Caravan Site and a housing cluster at the northwestern corner of Bulstrode Park all lie between the Site and the A40. Slade Farm Quarry, a large-scale mineral extraction area, is located opposite the Site on the southern side of the M40.

6.7.42. The Site comprises land used that was previously used for mineral extraction and has formerly been used for landfill (although has now ceased accepting waste for landfill). Phased landfill restoration works have been partially completed, a bio-gas energy centre has been developed and is operational, and mineral processing works are on-going in the central-eastern part of the Site. The landforms of the completed or partially completed landfill restoration works rise up on the north, south, east and west sides of the active mineral works area. A 400kV powerline passes through the eastern part of the Site on an approximate north-south alignment.

Landform and Drainage

6.7.43. The Site forms part of a raised, gently undulating plateau that descends into the Alder Bourne River Valley on its south-eastern side.

6.7.44. There are mounded landforms on both the western and eastern sides of the active works area. The western landform rises up to approximately 117m AOD with slopes descending to the northern, western, and southern site boundaries. The eastern landform rises up to approximately 98m AOD with slopes descending on its northern, eastern and southern sides. Levels fall to approximately 90m AOD in the central-eastern part of the Site (**Appendix 2: LVIA** - Figure 3: Topography)

6.7.45. Beyond the western site boundary, levels rise up above the 105m AOD contour close to Junction 2 of the M40 and above the 110m AOD contour at Wilton Park to the northwest. Beyond the northern and north-eastern site boundaries, levels continue to descend to the A40 before rising up above 90m AOD contours at Birch Wood and Sublet's Wood and up above 100m AOD contours on the southern side of Jordans and the western edge of Chalfont St Peter.

6.7.46. Beyond the eastern site boundary, levels descend into a dry valley at approximately 55m AOD before rising up again to meet the western edge of Gerrards Cross at approximately 70m AOD. An area of flat land above 90m AOD lies south of the M40 and is dissected by a narrow valley that contains Village Lane, which extends south to lower-lying land at Hedgerley.

6.7.47. There are few watercourses in the study area. Ornamental waterbodies are present in Bulstrode Park. Ponds are commonplace in rural settlements and farms. A leachate storage basin and various ponds are located within the Site.

Vegetation

6.7.48. Woodland, copses and tree belts are common in the study area. The woodlands typically comprise mixed woodland plantation or broadleaved woodland. Birchland Wood / Pitlands Wood, Birch Wood and Siblet's Wood, Malms Wood and Great Legs Wood are located on the rising land north of the A40. Wapseys Wood, Further Warren Wood, an outlier of Birchland Wood and other woodland blocks are located between the northern site boundary and the A40. Large blocks of woodland and individual mature trees are located in Bulstrode Park on the eastern side of the Site. Other woodland lies between Bulstrode Park and the Site.

6.7.49. A tree belt also straddles the western site boundary adjacent to the Knight Templars' site at Moat Farm. Cave Wood, Birchen Spring Coppice, Hillmotts Furze, Sutton's Wood, Leith Grove and Church Wood are located opposite the Site on the southern side of the M40. Burtley Wood, located southwest of the Site, abuts the eastern edge of Beaconsfield Services. Small blocks of off-site woodland abut the western side boundary whilst Pyebushes, a relatively large block of woodland, is located on the rising land further to the west. Tree / shrub belts typically line main transport routes, including the railway, M40, A40 and the A355 west of the Site. Rural lanes are typically lined by either trimmed or tall, bushy hedgerows.

6.7.50. Fields are typically medium in scale, with smaller scale fields often located around settlements. Field patterns are predominantly irregular but also include some regular shaped paddocks.

6.7.51. In terms of on-site vegetation, capped areas of former landfill have been re-vegetated with trees/shrubs/grassland. Much of this vegetation is of uniform height as it was all planted at the same time using specimens of similar height, with a resultant reduction in its interest and variety. The heights and density of the tree/shrub vegetation varies depending on age, microclimate and other growing conditions.

6.7.52. In the eastern part of the Site, woodland and trees lie on the northern, northwestern and western sides of the Knight Templars' site at Moat Farm. In the southern part of the Site, tree / shrub belts and other woodland blocks are located alongside the M40 where they adjoin trees within the highways reserve. Trees are also located on the north-western part of the Site near the near the Beaconsfield Household Recycling Centre.

Access and Connectivity

6.7.53. Away from the railway, M40 and A-roads, a small number of rural roads and farm tracks cross the study area. Mumfords Lane and Potkiln Lane head north from the A40. Hedgerley Lane runs along the southern edge of the M40 before passing over the M40 and heading east into Gerrards Cross. Village Lane and Andrew Hill Lane heads south from Hedgerley Lane to provide access to Hedgerley and Farnham Common respectively. The local landscape is also criss-crossed by a network of PRoWs (Figure 4: Public Rights of Way within Study Area and Figure 5: Public Rights of Way within 2km radius in **Appendix 2: LVIA**). Within the Site, these include:

a. Footpath GEC/12/1 (passing through the tree / shrub belt along the southern site boundary);

b. Footpath GEC/11/1 (connecting Footpath GEC/12/1 with the A40 near the Crowne Plaza Hotel);

c. Footpaths GEC/13/1 and GEC/13/3 (connecting Footpath GEC/12/1 with the housing cluster at the northwestern corner of Bulstrode Park);

d. Footpath GEC/25/1 (extending east from Footpath GEC/13/3 along the northern side of Moat Farm); and

e. Footpath GEC/14/2 (extending northeast alongside the eastern side boundary from Footpath GEC/25/1.

6.7.54. The Section 106 agreement for the Wapseys Wood Landfill Restoration Scheme provides for the upgrading of most sections of Footpath GEC/12/1 to a permissive bridleway, which would also extend north-eastwards to the eastern site boundary and northwards alongside the western site boundary to a location near the Beaconsfield Household Recycling Centre. A permissive bridleway would also pass across the central part of the restored landfill. (Figure 5: Public Rights of Way within 2km radius in **Appendix LVIA**). Other PRoWs extend north from the A40, south from the M40/Hedgerley Lane and east across Bulstrode Park. Birchland Wood / Pitlands Wood, which straddles the A40 and abuts the northern site boundary, is an area of open access land.

Natural and Cultural Heritage Designations

6.7.55. The Site does not form any part of a landscape that is designated at either local or national level. The southern boundary of the Chilterns National Landscape is approximately 1.75km to the northwest. The Knight Templars' site at Moat Farm (Scheduled Monument with Grade II listed farmhouse and barns) and Bulstrode Park (Grade II* listed Park and Garden and Grade II listed building) both abut the southern and northern extent of the wider eastern site boundary. Hedgerley Conservation Area is located approximately 1.5km to the south whilst a cluster of listed buildings lie at Hedgerley Green approximately 0.5km to the south. Other listed buildings are located on the hillslopes north of the A40. Birchland Wood / Pitlands Wood, Cave Wood and Burtley Wood are all designated as ancient woodland (**Appendix 2: LVIA** - Figure 6: Natural and Cultural Heritage Designations).

Landscape Character

6.7.56. The Site forms part of Thames Valley National Character Area (NCA 115), as defined by Natural England. The summary of this NCA states that "The River Thames provides a unifying feature through a very diverse landscape of urban and suburban settlements, infrastructure networks, fragmented agricultural land, historic parks, commons, woodland, reservoirs and extensive minerals workings."

6.7.57. The Site lies within the Beaconsfield Mixed Use Terrace (22.1) Landscape Character Area (LCA), as identified by the South Bucks District Landscape Character Assessment[189] (**Appendix 2: LVIA** - Figure 7: District Landscape Character Areas). This LCA also includes land to the north, northwest, west and southwest of the Site as well as a belt of land on the southern side of the M40. It is described as:

"*A large scale, mixed use, elevated plateau (up to 100m) with a varied and diverse landscape. A mosaic of open farmland (predominately arable cultivation), undulating parkland and woodland, which is interspersed, and at times dominated, by development, including industrial workings and transportation corridors. Despite this, settlement density is low and highly dispersed, comprising isolated farmsteads and intermittent properties. Large scale open fields, generate occasional long views, which contrast with areas of enclosure associated with woodland. The area is dissected across its centre by several major transport corridors, which fragment the landscape and have a strong visual and audible impact. Away from these areas, a tranquil and calm landscape exists. This is a highly varied and disparate landscape, the contrasting land uses and land cover, creates a landscape which lacks unity and is visually busy*."

6.7.58. Land to the northeast, east and southeast of the Site and a belt of land that includes Hedgerley to the south, form part of Alder Bourne River Valley LCA (23.1). This LCA is described as:

[189] South Bucks District Landscape Character Assessment (October 2011)

"A small scale river valley, with broad and shallow main valley landform, and narrow, steep tributary valleys. The Alder Bourne River meanders through the lower valley floodplain, with isolated scattered ponds dispersed along its course. Land use is predominately farmland, with a combination of rough grazing, pasture and paddock, and occasional arable cultivation. Field sizes and enclosure vary and are delineated with a strong network of hedgerows and further wooden post and wire subdivisions. Woodland blocks occupy the upper valley slopes, occasionally extending into the valley floor, providing a high level of enclosure and creating an intimate character. Settlement is focussed along the valley floor and is comprised of nucleated and dispersed forms including isolated farmsteads, occasional small hamlets and village edges. The mix of land uses and land cover create a varied landscape pattern, which is intensified by the major transport route of the M40. This dissects and fragments the landscape, creating local noise and visual intrusion. Tree cover and the enclosed landscape topography, help to provide a sense of mystery and calmness, and maintain a level of rural naturalness, despite the close proximity to the transport corridor. Views along the valley floor are often limited, and enclosed by topography, field boundaries and trees. Valley sides however, present occasional long views across the character area."

6.7.59. Other LCAs in the study area comprise Tatling End Mixed Use Terrace LCA (22.3); Burham Beeches Wooded Terrace LCA (24.1); Farnham and Stoke Common Wooded Terrace LCA (24.2); Lower Misbourne Settled River Valley LCA (19.2) and St. Giles Undulating Farmland LCA (20.1).

Night-Time Character

6.7.60. Sky glow above Beaconsfield and Gerrards Cross is noticeable from the rural landscape between these two settlements. Lighting along the section of M40 adjacent to the Site and evening floodlighting in the Crowne Plaza Hotel car park contributes to skyglow around the Site.

Site Visibility

6.7.61. Site visibility is described below with reference to Figure 8: Site Context Photographic Viewpoints/Preliminary Photomontage Viewpoints of **Appendix 2: LVIA**. Field survey work has identified that the Site typically has a high degree of enclosure in external views, as follows:

Views from the northwest and north

6.7.62. The existing and proposed vehicular accesses may be seen in transient views from the A40 but views of other parts of the Site from this highway are typically enclosed by roadside tree / shrub belts, by the Crowne Plaza Hotel and Wapseys Wood Caravan Site, and by rising landform and by woodland blocks on intervening land within the Wider Ownership Area.

6.7.63. A mix of open and filtered near distance views are available from the Beaconsfield Household Recycling Centre. Open views of the easternmost vehicular access road are available from the Wapseys Wood Caravan Site. Woodland in the Wider Ownership Area on the northern sides of the Site forms the backdrop to views from the Crowne Plaza Hotel, the Wapseys Wood Caravan Site and the housing cluster in the northwestern corner of Bulstrode Park.

6.7.64. Most views towards the Site from PRoW, country lanes, farmsteads and residential properties on the rising land north of the A40 are enclosed by nearby vegetation in the form of tall hedgerows, woodland and other trees. Where available, outward views towards the Site (including the proposed built development zone in the south-eastern corner) are typically enclosed by intervening landform and woodland (off-site and on-site) on the southern side of the A40 (Photographs B to D). The Site is not visible from the railway further to the north due to enclosure provided by intervening landform and woodland.

Views from the northeast and east

6.7.65. Views of the Site (including the proposed built development zone) from the well-vegetated western edges of Gerrards Cross and Chalfont St Peter are unlikely to be available due to the enclosure provided by intervening woodland and tree belts in either the winter or summer months although some glimpses of the upper slopes of the mounded landforms on the western side of the active works area may be

available from a small number of properties on the edge of Gerrards Cross. Views of the Site from other more elevated parts of these settlements, such as Gerrards Cross Common (part of the Gerrards Cross Common and Gerrards Cross Centenery Conservation Area), are also typically enclosed or heavily filtered by visual layers of intervening trees (Photographs G. H and I). Views from the Bulstrode Park Camp scheduled monument are enclosed by intervening housing and trees (Photograph F). Views from the public footpaths in the central and eastern parts of Bulstrode Park are not available due to the enclosure provided by the elevated land on which Bulstrode House is located (Photographs J, K and L). The Site is not visible from the gardens around the house. Views from the public footpaths in the western part of the park are substantially enclosed by parkland woodland and other trees (Photograph M) and, where available, are restricted to some glimpsed views of rising landform and vegetation of the restored landfill in the eastern part of the Site. Views from Footpath GEC/14/2 heading southwest past the Site from Bulstrode Park (Photograph N) and Footpath GEC/25/1 heading west along the northern side of Moat Farm (Photograph O) are enclosed (summer months) or heavily filtered (winter months) by intervening tree / shrub vegetation. Views towards the Site (including the proposed built development zone) from the public footpaths that pass through the Knight Templars' site at Moat Farm (Footpaths GEC/13/2 and GEC/13/3) are enclosed (summer months) or filtered (winter months) by a tree belt alongside the eastern site boundary and by off-site woodland that abuts the Site boundary (Photograph Q).

Views from the southeast and south

6.7.66. Views into the Site (including the proposed built development zone) from sections of the M40 to the south and southeast are largely enclosed by the tree / shrub belt along the southern site boundary and by tree / shrub vegetation in the highway verge. Some highly filtered views of partially restored landform in the southeastern part of the Site are likely to be available during the winter months from the M40 and from Hedgerley Lane as it passes northwards over the motorway bridge (Photograph T). Views from Hedgerley Lane on the approach from the southeast are initially enclosed by buildings at Moat Farm but some glimpsed views of tree / shrub vegetation along the eastern site boundary and within the Moat Farm scheduled monument are available from the lane adjacent to this building cluster (Photograph R) and from the section of lane alongside the scheduled monument (Photograph S).

6.7.67. Views of the Site from Hedgerley Green and from nearby houses, country lanes and PRoW are typically enclosed by motorway embankments and by intervening vegetation, including a belt of mature trees alongside the motorway and trees in northern parts of the hamlet (Photographs U, V and W). Views of the Site from Hedgerley, from Village Lane and from nearby PRoW are further enclosed by intervening landform and trees (Photographs X and Y).

Views from the southwest and west

6.7.68. Views towards the Site (including the proposed built development zone) from the section of motorway on the approach from the west are substantially enclosed by the tree / shrub belt along the southern site boundary and by tree/shrub vegetation in the highway reserve both to the south and west. Views from the section of Hedgerley Lane to the southwest are further enclosed by tree / shrub vegetation alongside the lane. The Site is not visible from Andrew Hill Lane on the western side of Village Lane. Some glimpsed views of the Site are available from the southern end of Pyebush Lane (Photograph A). The Site is not visible from any viewing positions further to the west, including the A355 and the eastern edges of Beaconsfield.

Views from PRoW through the Site

6.7.69. The Site is not visible from the section of Footpath GEC/11/1 that passes through woodland (in the Wider Ownership Area) on the southern side of the Crowne Plaza Hotel but open views of the Site (excluding the proposed built development zone) are available from the central and southern sections of this footpath (Photograph Z). The Site is also not visible from the northern section of Footpath GEC/13/1 that heads north from the housing cluster northwest of Bulstrode Park due to the enclosure provided by intervening woodland (within the Wider Ownership Area) but open views of the Site are available from the southern section as it passes through the Site (Photograph E). Views from Footpath

GEC/12/1, which passes through the tree / shrub belt along the southern site boundary, are typically enclosed by this vegetation but some glimpsed views of restored or partially restored landforms in the southern part of the Site are available, particularly during the winter months. Some elevated panoramic views across the Site are available from the permissive footpath through the southern part of the Site. A tall residential tower at Wilton Park on the eastern edge of Beaconsfield (currently vacant and due to be demolished) is a prominent feature of some elevated views from within the Site.

Future Baseline Conditions

6.7.70. The LVIA will consider the likely future baseline conditions of the Site, in the absence of the Proposed Development.

It is expected that:

a. There would be a natural increase in the height and density of tree / shrub vegetation on restored areas of landfill;

b. Landscape restoration proposals for slade farm quarry would be implemented upon completion of the mineral extraction works; and

c. Landscape restoration works for the on-site former landfill and mineral extraction areas (including new landforms, tree / shrub planting and a network of recreational routes) would be completed in accordance with the approved restoration plan. Restoration works may potentially include increased heights for peripheral landforms should a pending Section 73 application for a revised restoration plan be approved (reference cm/0031/23).

6.7.71. Some changes may be expected in terms of the range of tree species in the local landscape as part of adaptation to climate change. These are likely to arise from the effects of water stress, temperature change and pathogens / viruses on tree health. However, it is not considered that these changes would influence the overall character and appearance of the Site.

6.7.72. Additional site views are likely to be available from the permissive bridleway that would be developed as part of the agreed restoration works for the Wapseys Wood Landfill.

6.7.73. The LVIA assessment of effects based on the future baseline conditions of a fully restored landfill and mineral extraction site will be in addition to the assessment of effects against existing baseline conditions of a partially restored Site.

Receptors

6.7.74. Landscape receptors identified within the study area comprise the:

a. Physical fabric and character of the Site;

b. Connectivity of recreational routes through the Site;

c. Bulstrode Park Historic Park and Garden and the Knight Templars' site at Moat Farm;

d. Character and key characteristics of the Beaconsfield Mixed Use Terrace LCA (22.1); and

e. Character and key characteristics of the Alder Bourne River Valley LCA (23.1).

6.7.75. Visual receptors identified within the LVIA study area comprise:

a. Recreational users of open access land, public parks and PRoW, including walkers and equestrian users;

b. Users of the M40, A40 and country lanes, including vehicle drivers, cyclists and horse riders;

c. Residents of settlements, the Wapseys Wood Caravan Site, housing clusters, farmsteads and individual residential properties;

d. Occupants of the Crowne Plaza Hotel; and

e. Visitors to the Beaconsfield Household Recycling Centre.

Establishing Receptor Sensitivity

6.7.76. The sensitivity of landscape and visual receptors will be assessed through consideration of their value and susceptibility to change. The process for determining receptor sensitivity is set out in the *Assessment Methodology* section below.

Assessment of Effects

6.7.77. The ES shall define landscape and visual baseline conditions, identify relevant landscape and visual receptors, and assess:

a. The potential for landscape and visual impacts throughout the enabling and construction works and as a result of the completed development and resultant landscape and visual effects;

b. The likely significant landscape and visual effects on day and night-time views;

c. Any required mitigation or monitoring to address any likely significant adverse landscape and visual effects; and

d. The potential for cumulative effects in relation to landscape and visual impacts with other agreed upon schemes in the surrounding area.

Enabling and Construction

6.7.78. The enabling and construction phase of the Proposed Development has the potential to give rise to significant temporary effects on:

a. The physical fabric, character and visual openness of the Site arising from construction components and activity, including removal of vegetation, footpath diversions, introduction of hoardings, temporary landforms and cranes, construction traffic, gradual development of buildings and structures etc;

b. The character, key characteristics and tranquillity of the surrounding landscape of the Beaconsfield Mixed Use Terrace LCA (22.1) and the Alder Bourne River Valley LCA (23.1);

c. The landscape and visual settings of Bulstrode Park Historic Park and Garden and the Knight Templars' site at Moat Farm; and

d. Views and visual amenity of visual receptors, including:

   i. Users of prow within the Site and in the surrounding landscape;

   ii. People living at Hedgerley, Hedgerley Green and sporadic residential properties on the southern side of the M40; Moat Farm; the Wapseys Wood Caravan Site ; the housing cluster in the northwestern corner of Bulstrode Park; and farmsteads/residential properties on the hillslopes north of the A40; and

   iii. Transient views obtained by users of the M40, A40 and country roads.

Completed Development

6.7.79. The operational phase of the Proposed Development has the potential to give rise to significant permanent effects on:

a. The physical fabric, character and visual openness of the Site arising from changes to landform and vegetation; re-aligned footpaths and public access to a new nature reserve; the scale, massing and height of the proposed buildings;

b. The night-time character of the Site, arising from the introduction of new artificial lighting;

c. The character, key characteristics and tranquillity of the surrounding landscape of the Beaconsfield Mixed Use Terrace LCA (22.1) and the Alder Bourne River Valley LCA (23.1); and

d. The landscape and visual settings of Bulstrode Park Historic Park and Garden and the Knight Templars' site at Moat Farm;

e. Views and visual amenity of visual receptors, including:

i. Users of prow within the Site and in the surrounding landscape;

ii. People living at Hedgerley, Hedgerley Green and sporadic residential properties on the southern side of the M40; Moat Farm; the Wapseys Wood Caravan Site; the housing cluster in the northwestern corner of Bulstrode Park; and farmsteads / residential properties on the hillslopes north of the A40; and

iii. Users of the M40, A40 and country roads.

Assessment Methodology

Establishing the Baseline

6.7.80. The landscape character of the study area and the nature of existing views will be established through a combination of desk-based research and field survey work. The landscape and visual surveys will be carried out by Chartered Landscape Architects experienced in EIA. Survey work will be carried out in both winter and summer in order for seasonal change to be considered in the assessment. The field study will include a comprehensive photographic record carried out in both the summer and winter to illustrate landscape character and views.

6.7.81. Identification of the landscape baseline will include descriptions of:

a. Topography, drainage, waterbodies and geology;

b. Cover, distribution and type of land use (past and present) and open space;

c. Statutory and non-statutory designations;

d. Development patterns and scale;

e. Vegetation patterns and extents;

f. Access and connectivity;

g. Historic landscape;

h. Heritage features and areas;

i. Conservation area character assessments;

j. Published landscape character assessments; and

k. Identification of local landscape character.

6.7.82. Assessments will be provided for the following potential impacts, where it is considered that significant effects are likely to arise as a result of the Proposed Development:

a. Direct temporary impacts on the physical landscape and character of the Site. Arising from the introduction of enabling and construction works for new large-scale buildings, landforms and retaining walls, roads and infrastructure, and from temporary changes to vegetation patterns;

b. Direct permanent impacts on the physical landscape and character of the Site, arising from the development of large-scale buildings, ancillary structures, internal roads and lighting; and changes to the existing site landform and vegetation and/or the approved landform/vegetation for the quarry restoration works to accommodate the proposed built form, structures and roads and to help integrate them into the local landscape;

c. Indirect temporary and permanent effects on landscape character outside the Site where enabling and construction works or the permanent introduction of new large-scale built form have the potential to affect the character and qualities of the surrounding landscape character areas; and

d. Direct temporary and permanent effects on views obtained by visual receptors, arising from the large scale of the enabling and construction works and the permanent introduction of large-scale built form.

Temporal Scope

6.7.83. The landscape and visual assessment will be undertaken for the following years:

a. Construction: assessment of effects in the winter periods during the enabling and construction phase;

b. Year 1 after completion: assessment of effects in both the winter and summer to account for seasonal change in the visibility of the Proposed Development once it is complete; and

c. Year 15 after completion: assessment of effects in the summer period once the vegetation established as part of the development works landscape masterplan has had 15 years of growth. The 'summer' assessment takes account of a potential reduction in visibility of the Proposed Development as vegetation, if present in a view, will be in leaf.

Verifiable Photomontages

6.7.84. The preparation and review of verifiable photomontages, also known as Accurate Visual Representations (AVRs) will form the basis of the landscape and visual assessment. Photomontages are still images intended to convey reliable visual information about a proposed development, but recognising that they can only be an aid to the process of landscape and visual assessment and to decision-making. These photomontages will be prepared in accordance with national best practice guidance, including the Landscape Institute's Technical Guidance Note 06/19 Visual Representation of Development Proposals (17 September 2019).

6.7.85. The photomontages will be produced for the completed Proposed Development at both operation year 1 and operation year 15. The numbers and types of verifiable photomontages, their viewpoint locations, the methodology for their preparation and the cumulative schemes to be included in the photomontages will be reviewed and agreed with Buckinghamshire Council and relevant statutory consultees (e.g. Natural England). A set of preliminary viewpoints is identified on Figure 8: Site Context Photographic Viewpoints/Preliminary Photomontage Viewpoints of **Appendix 2: LVIA**. These viewpoints have been identified in consultation with the project heritage consultants so they can also be used to help assess potential effects on both heritage assets and landscape and visual resources, including effects on people associated with those heritage assets. The photomontages will be based on day-time views only but these will also be used to inform qualitative assessments of effects on night-time views.

Assessment of Landscape Effects

6.7.86. Landscape effects are the changes resulting from development to landscape as a resource - its overall character, and the individual elements and aesthetic and perceptual qualities contributing to that character.

6.7.87. Whilst the LVIA considers cultural heritage features and areas in determining the value of landscape receptors, it does not assess their significance or landscape setting. Assessment of cultural heritage features will be assessed separately within the EIA, refer to '*Section 6.6: Built Heritage* and *Section 7.2: Archaeology* of this EIA Scoping Report for further information.

Landscape Value

6.7.88. Landscape value is the importance attached to a landscape, sometimes reflecting national or local consensus because of its quality, which may include scenic and / or aesthetic qualities, cultural and built and / or natural heritage conservation associations. The value of landscape receptors will be established at the baseline stage and will be categorised as either High, Medium, Low or Very Low, taking into account the following factors that are identified in Box 5.1 of the GLVIA3:

a. "Landscape quality (condition): A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements";

b. "Scenic quality: The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses)";

c. “Rarity: The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type”;

d. “Representativeness: Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples”;

e. “Conservation interests: The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right”;

f. “Recreation value: Evidence that the landscape is valued for recreational activity where experience of the landscape is important”;

g. “Perceptual aspects: A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity”; and

h. “Associations: Some landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area.”

6.7.89. Table 52 sets out the criteria that will be considered for determining landscape value. These criteria are based on guidance provided by the Landscape Institute, as set out in *Section 6.7.4*.

Table 52 Levels of Landscape Value

Level of Value	Assessment Criteria
High	Designated areas at an International or National level (including, but not limited to, World Heritage Site, National Parks, AONB’s) and also considered an important component of the country’s character, experienced by high numbers of tourists. Landscape condition is very good and components are generally regularly maintained to a high standard. Rare or distinctive elements and features are key components contributing to character. A landscape of high aesthetic appeal and rich cultural associations. A landscape with rich cultural and / or nature conservation resources. An elevated level of tranquillity due to enclosure by land use, traffic and movement, light pollution and absence of major infrastructure. Extensive and promoted opportunities are available for recreation.
Medium	Designated areas at a Regional or County level (including, but not limited to, green belt, regional scale parks, designated as open space or a Conservation Area in local planning documents) and also considered a distinctive component or the region/county character experienced by a large proportion of its population. Landscape condition is fair and components are generally well maintained. Rare or distinctive elements and features are a notable component that contribute to the character of the area. A landscape of moderate aesthetic appeal and cultural associations. A landscape with some cultural and/or nature conservation resources. Moderate levels of tranquillity due to land use, traffic and movement, light pollution and / or major infrastructure. Opportunities are available for recreation.
Low	No formal designations but a landscape of local relevance (including, but not limited to, public or semi-public open spaces, village greens or allotments) and also green infrastructure and open paces within residential areas likely to be visited and valued by the local community. Landscape condition is poor / components generally poorly maintained or damaged. Rare or distinctive elements and features are not a notable component that contribute to the character of the area. A landscape of limited aesthetic appeal and cultural associations. A landscape with limited cultural and / or nature conservation resources. Limited levels of tranquillity due to land use, traffic and movement, light pollution and presence of major infrastructure. There are few/no opportunities for recreation.
Very Low	Landscape condition is very poor and components are poorly maintained or damaged. The landscape does not contain any rare or distinctive elements and features. A landscape of no aesthetic appeal or cultural associations. A landscape with no cultural and/or nature conservation resources. The landscape has low levels of tranquillity.

Level of Value	Assessment Criteria
	There are no opportunities for recreation.

Susceptibility of Landscape Receptors to Change

6.7.90. Although landscapes have some intrinsic sensitivities, different landscapes have different degrees of ability to accommodate new development depending on the development type and the character and components of each landscape. Landscape sensitivity needs to be determined with reference to the changes arising from the specific type of development in question. It is assessed combining judgements on the value attached to a landscape and the susceptibility to the type of change and nature of the development proposed.

6.7.91. GLVIA3 Para. 5.40 describes 'susceptibility to change' as "the ability of the landscape receptor (whether it be the overall character or quality / condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the Proposed Development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies."

6.7.92. GLVIA3 Para. 5.43 states that "Judgements about the susceptibility of landscape receptors to change should be recorded on a verbal scale (for example high, medium or low)…". The factors in Table 52 will be considered when determining the level of susceptibility of the landscape to the type of development proposed. The level of landscape susceptibility to change will be assessed based on the criteria in Table 53. These criteria are based on guidance provided by the Landscape Institute, as set out in Section 6.7.4.

Table 53 Landscape Susceptibility to Change

Level of Susceptibility	Assessment Criteria
High	The landscape has no or very limited ability to accommodate the specific proposed change without undue adverse effects taking account of the existing character and quality of the landscape.
Medium	The landscape has some ability to accommodate the specific proposed change without undue adverse effects, taking account of the existing character and quality of the landscape.
Low	The landscape is generally able to accommodate the specific proposed change with little, or no, undue consequences for the maintenance of the baseline situation, taking account of the existing character and quality of the landscape.
Very Low	The landscape has a very high ability to accommodate the specific proposed change with no undue consequences for the maintenance of the baseline situation (receptor value) and/or achievement of relevant planning policies / strategies.

6.7.93. The overall level of sensitivity of the landscape (i.e. the receptor sensitivity) will then be assessed based on its value and its susceptibility to the type of development proposed. It will be rated as either high, medium, low or very low based on the matrix in Table 54.

Table 54 Sensitivity of the Landscape Receptor

Susceptibility to Change	Value			
	High	Medium	Low	Very Low
High	High	High	Medium	Medium
Medium	High	Medium	Medium	Low
Low	Medium	Medium	Low	Very Low

Magnitude of Landscape Change

6.7.94. Landscape changes may include the loss or addition of particular features, changes to landscape quality and changes to landscape character. The main factors that will be considered are as follows:

a. Changes to landscape elements: the addition of new elements or the removal of existing elements such as buildings, trees, vegetation, and buildings and other elements which may be characteristic of the landscape character type;

b. Changes to landscape qualities: degradation or erosion of landscape elements and patterns, and perceptual characteristics, particularly those that form key characteristic elements of landscape character types; and

c. Changes to landscape character: landscape character may be affected through the incremental effect on characteristic elements, landscape patterns and qualities (including perceptual characteristics) and the cumulative addition of new features, the magnitude of which is sufficient to alter the overall landscape character type of a particular area;

6.7.95. The magnitude of change on the landscape is influenced by:

a. Size and scale of the change - for example, if there is a complete or partial loss of a particular element of the landscape;

b. Geographical extent of the area that will be altered; and

c. Duration of the change and its reversibility.

6.7.96. Physical changes to the landscape may give rise to effects on character. Effects may be direct (whereby landscape components are lost, damaged or altered by the construction or operation of the Proposed Development), or indirect (whereby the Proposed Development alters the setting of surrounding character areas).

6.7.97. Factors that will be considered in assessing the magnitude of change to landscape character are summarised in Table 55. These factors are based on guidance provided by the Landscape Institute, as set out in *Section 6.7.4*. Any combination of factors may be considered when assessing the level of effect. This allows professional judgement to be used when determining the relative importance of different factors on a site-specific basis. Judgements on the magnitude of landscape change will be informed by the photomontages. Changes may be adverse or beneficial.

Table 55 Magnitude of Landscape Change

Magnitude of Landscape Change	Typically where the landscape:
High	A prominent change that may be large in scale and / or extent and include the loss of key landscape characteristics, or the addition of new features or elements that will become the characteristics of the landscape, changing the overall landscape quality and character Total loss of or substantial alteration to key characteristics of the character area, the setting of the character area, and/or the landscape setting of a heritage feature or area Addition of new uncharacteristic features or components that substantially alter character and/or a large part of the setting of the character area Introduction of irreversible change over a substantial area of an LCA or its setting Introduction of long term or permanent change uncharacteristic of the area
Medium	A noticeable / prominent change of more limited scale and extent including the loss of some key landscape characteristics or elements, or the addition of some new features or elements, that will potentially change the landscape character Noticeable change or alteration to one or more key characteristics of the character area, the setting of the character area, and/or the landscape setting of a heritage feature or area Addition of new features or components that form prominent elements of the character and/or setting of the character area, but are largely characteristic of the existing setting Uncharacteristic changes across only a proportion of the character area or its setting Introduction of some irreversible changes in parts of a character area or its setting Introduction of medium to long term uncharacteristic changes and/or permanent changes largely characteristic of the existing setting
Low	A noticeable change affecting small areas of landscape character where the Proposed Development will not quite fit into the landform and scale of the landscape or will add new features or elements of limited characterising influence.

Magnitude of Landscape Change	Typically where the landscape:
	Slight loss or alteration to one or more characteristics of the character area, the setting of the character area, and/or the landscape setting of a heritage feature or area Addition of new features or components that form largely inconspicuous elements of the existing character and / or setting Introduction of short to medium term uncharacteristic changes and/or long term/permanent changes in a small proportion of a character area or its setting
Negligible	A change affecting relatively small areas of landscape character where the Proposed Development will largely complement the scale, landform and pattern of the landscape and existing character and quality of the landscape will be substantially conserved. A change to the landscape setting of an area that is negligible or difficult to perceive.

Assessment of Visual Effects

6.7.98. Visual effects are a subset of landscape effects and relate to the changes that arise in the composition of views as a result of changes to the landscape, to people's responses to the changes, and to changes in visual amenity experienced by those people (visual receptors).

6.7.99. Visual receptors within the study area will be identified, i.e. the people who will be affected by changes in views or visual amenity at different places. Representative assessment viewpoints will be identified for groups of receptors, i.e. viewpoints where there are different types of visual receptor with the same or similar views. The numbers and locations for representative assessment viewpoints will be agreed with Buckinghamshire Council and relevant statutory consultees (e.g. Natural England). Preliminary assessment viewpoints are identified on Figure 9: Preliminary Assessment Viewpoints of **Appendix 2: LVIA**.

6.7.100. The view from each representative viewpoint will be described with reference to photographs that will be taken to illustrate each view.

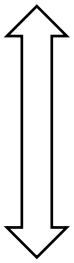
Visual Sensitivity Assessment

6.7.101. Visual sensitivity may be defined as the overall degree to which people are potentially affected by changes in views and visual amenity, taking into account their activities, the degree of interest that they may have in views and visual amenity and the value attached to views. The assessment of visual sensitivity requires judgements to be made about (1) the susceptibility of the visual receptors (i.e. the particular person or group of people likely to be affected at a specific viewpoint) to changes in views and visual amenity, and (2) the value attached to particular views.

Value of Views

6.7.102. Judgements will be made, as part of the visual baseline, about the value attached to views that are experienced. The criteria that will be used to assess the value of views are set out in Table 56. These criteria are based on guidance provided by the Landscape Institute, as set out in *Section 6.7.4*. Professional judgement will be used in the application of the criteria.

Table 56 Level of View Value

Level of View Value	Criteria for Assessing the Value of Views
Higher 	A view in which attractive features are dominant or prevalent or a view with attractive focal points and / or skyline features. The view may include some visual detractors, but these do not form a clearly apparent part of the composition of the view. A designated view or one identified as of value on a tourist map or in a guidebook. A view with cultural associations, recorded in art or literature of national significance. A view where the composition was a fundamental aspect of the design or function of a heritage asset and is an integral part of the setting of a heritage asset. Views to and from important buildings. A view that provides an important and positive contribution to the visual relationship between a settlement and its landscape setting
	An unremarkable view and/or a view where neither discordant or attractive elements are dominant or form a clearly apparent part of the composition of the view. A view that is not designated or documented.

Lower	A view where discordant or unattractive features are dominant or prevalent, and/or where such features are focal points and/or skyline features. These views may include some attractive features, but these do not form a clearly apparent part of the composition of the view. A view that is not designated or documented. A view that provides a negative contribution to the visual relationship between a settlement and its landscape setting.

Visual Susceptibility

6.7.103. Visual susceptibility may be defined as the degree to which people are potentially affected by changes in views and visual amenity, i.e. their receptiveness to visual change. Different groups of people may be affected to different degrees depending, for example, on their activities and the degree of interest that they may have in views and visual amenity. The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of (1) the occupation or activity of people experiencing the view at locations and (2) the extent to which their attention or interest may therefore be focused on the views and visual amenity that they experience at particular locations.

6.7.104. The most susceptible visual receptors (people) include:

a. Residents at home;

b. People engaged in outdoor recreation whose interest is likely to be focused on landscape and views (e.g. Users of open access land, long distance routes, PRoWs and the canal network);

c. Visitors to the heritage assets or other attractions where views are important to the experience;

d. Users of community allotments, based on community value of the allotment and a typically high appreciation of their surroundings; and

e. Communities where views contribute to landscape setting enjoyed by residents.

6.7.105. Those less likely to be focused on the landscape and views include:

a. People engaged in outdoor sport or recreation not involving appreciation of views of the landscape;

b. People at places of work where setting is not important to quality of working life; and

c. Travellers on road rail or other routes tend to fall into an intermediate category depending on whether travel involves recognised scenic routes.

6.7.106. Users of transport routes are placed into an intermediate category using professional judgement depending on whether travel involves recognised scenic routes or depending on the nature, character and speed of the route. For instance, users of rural B roads and winding rural lanes will have a higher susceptibility to visual change than users of motorways or busy A-roads due to the relative importance of their visual surroundings to their travel experience.

6.7.107. The susceptibility of different visual receptors to the Proposed Development will be assessed in accordance with the criteria set out in Table 57. These criteria are based on guidance provided by the Landscape Institute, as set out in *Section 6.7.4*. Identification of the level of susceptibility will be based on professional judgement, taking account of the location and context of the view. For example, the level of susceptibility for PRoW users may vary depending on whether the routes primarily have a local functional role (e.g. connectivity to schools or shops) or whether they are used primarily for recreational purposes across a wider area.

Table 57 Visual Receptor Susceptibility Criteria

Level of Visual Susceptibility	Visual Receptors and Views
High	Occupiers of residential properties. Recreational users or tourists whose attention may be focussed on the landscape (e.g. users of a PRoW network).
Medium	People travelling along scenic roads.

Level of Visual Susceptibility	Visual Receptors and Views
	People staying in hotels and healthcare institutions. People walking along residential streets. People engaged in outdoor sport or recreation, which involves some appreciation of views of the landscape. Users of research facilities, where staff may walk between buildings and expect a high-quality working and living environment
Low	People at work and in educational institutions. People engaged in formal sports activities that does not involve appreciation of views of the landscape. People walking through urban areas (for example, commuters). People travelling on main roads through the landscape.
Very Low	People at their place of work or other locations where views of the wider landscape have little or no importance (e.g. occupants of some industrial sites or commercial developments).

Levels of Visual Sensitivity

6.7.108. The sensitivity of a visual receptor results from a combination of value and susceptibility to change and will be rated as either high, medium, low or very low based on the matrix in Table 58.

Table 58 Sensitivity of Visual Receptor Views

Susceptibility to Change	Value			
	High	**Medium**	**Low**	**Very Low**
High	High	High	Medium	Medium
Medium	High	Medium	Medium	Low
Low	Medium	Medium	Low	Very Low

Magnitude of Visual Change

6.7.109. The magnitude of the effect on views is made up of judgements about:

a. Size and scale of the effect - for example is there complete or partial loss of a particular element in the view;

b. Geographical extent of changes in view; and

c. Duration of the change and their reversibility.

6.7.110. The judgements will also consider:

a. The nature of the view (full, partial or glimpsed) and whether the Proposed Development would be the focus of the view or a small background element;

b. The distance between the viewpoint and the Proposed Development;

c. Whether the view is stationary, transient, or sequential; and

d. The seasonal effects of vegetation in terms of varying degrees of screening and filtering of views.

6.7.111. A combination of the above factors may influence magnitude of visual change and this will be considered using professional judgement when carrying out the assessment. The factors that will be considered in assessing the magnitude of change on views are summarised in Table 59. These factors are based on guidance provided by the Landscape Institute, as set out in *Section 6.7.4*. Judgements on the magnitude of visual change will be informed by the photomontages.

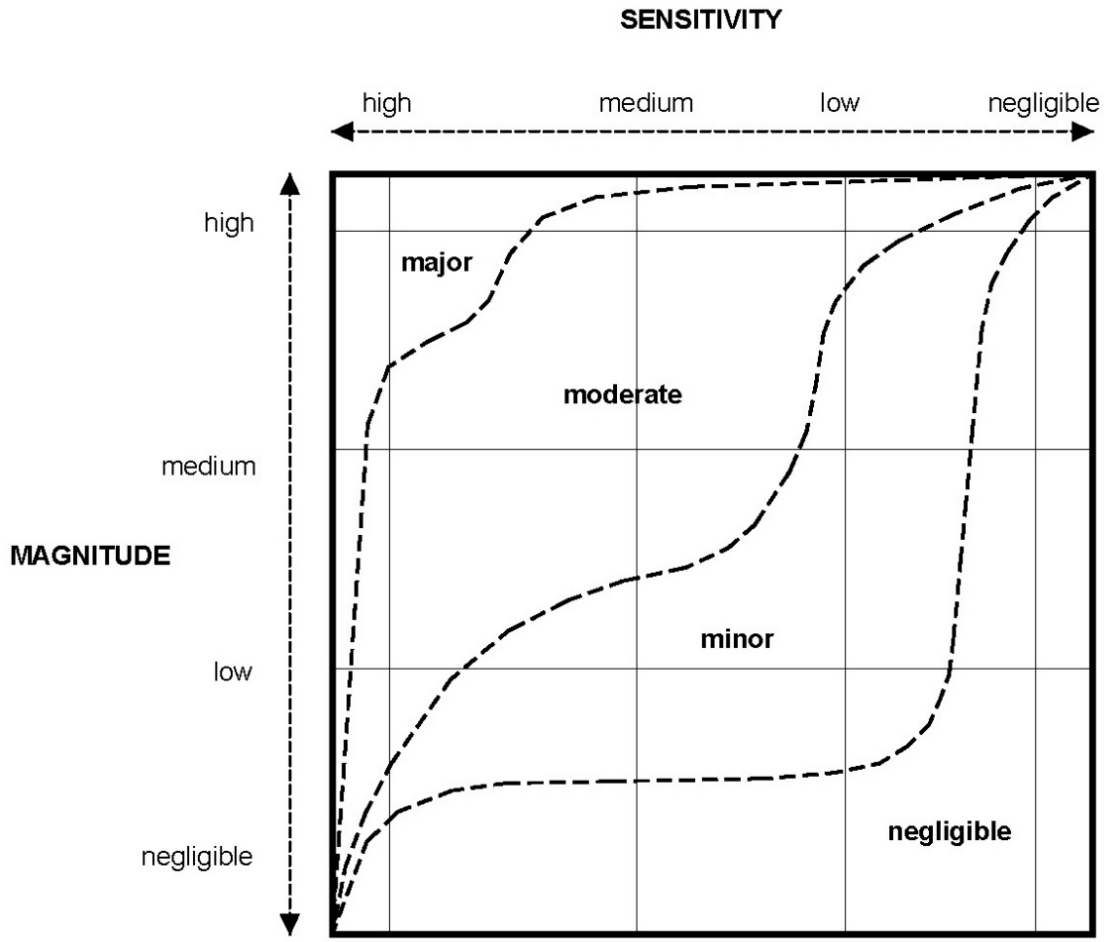
Table 59 Magnitude of Visual Change

Magnitude of Visual Change	Criteria
High	The proposals form a significant and immediately apparent part of the scene, appearing as a prominent and contrasting feature. Total loss or substantial alteration to key characteristics of the view from a receptor. Addition of new features or components that are continuously highly visible across the majority of the view and out of character from a receptor. Substantial changes in proximity to the visual receptor, within the direct frame of view.. Introduction of long term or permanent change uncharacteristic of the view
Medium	A readily noticeable change to the view, where change is evident but is not the key feature in the view. Noticeable change or alteration to one or more key characteristics of the view from a receptor. Addition of new features or components that may be continuously highly visible across much of the view, but are largely characteristic of the existing view from a receptor. Changes a relatively short distance from the receptor, but viewed as one of a series of components in the middle ground of the view. Substantial change partially filtered by intervening vegetation and/or built form, or viewed obliquely from the visual receptor. Introduction of medium to long term change uncharacteristic of the view and/or permanent changes largely characteristic of the existing view or in a small proportion of the view.
Low	Minor changes to the view that will not be readily noticeable, affecting a small proportion of the view that may be obliquely viewed or partly screened and/or appearing in the background landscape. May be a transient view obtained over short periods and capable of being missed by casual observers. Slight loss or alteration to one or more characteristics of the view from a receptor. Addition of new features or landscape components that may be continuously or intermittently visible in part of the view, but are largely characteristic of the existing view from a receptor. Changes within the background of the view, viewed as one of a series of components in the wider panoramic view from a receptor. Change largely filtered by intervening vegetation and/or built form, or viewed obliquely from the visual receptor. Introduction of short to medium term change uncharacteristic of the view and/or long term/permanent changes in a small proportion of the view.
Negligible	Changes to just a minor element in the overall view where change is barely perceptible. Very minor or barely perceptible loss or alteration of largely inconspicuous characteristics of the view from a receptor.

Determining Effect Significance

6.7.112. The process of forming a judgment on the significance of an effect will be based upon an assessment of the magnitude of change, combined with the sensitivity of the landscape or visual receptor to accommodate change. An indication of the likely level of significant effect is set out at Figure 11 below. Significant effects in EIA terms are those that are Major or Moderate.

Figure 11 Levels of Significance for Landscape and Visual Effects[190]



Nature of Effect

6.7.113. The nature of an effect will also be assessed and will be classified as beneficial, neutral or adverse. A neutral effect is an effect that is considered neither beneficial nor adverse overall, having made a 'net equation' judgment that takes into account both beneficial and adverse effects.

Cumulative Effects

6.7.114. Cumulative landscape and visual effects will also be assessed, i.e. those that result from additional changes to the landscape, views or visual amenity caused by the Proposed Development in conjunction with other built developments in the study area (associated with or separate to it).

6.7.115. Cumulative effects may be defined as the additional changes caused by a proposed development in conjunction with other similar proposed developments (either allocations, consented schemes, or those with resolution to grant) or as the combined effect of a set of developments, taken together. Cumulative landscape effects may be defined as effects that can impact on either the physical fabric or character of the landscape, or any special values attached to it. Cumulative visual effects may be defined as effects that can be caused by combined visibility, which occurs where the observer is able to see, in addition to a proposed built development, one or more other proposed built developments (either allocations, consented schemes, or those with resolution to grant) from one viewpoint and/or sequential effects which occur when the observer has to move to another viewpoint to see different developments.

6.7.116. A cumulative landscape effect is where more than one similar type of development may have an effect on a particular area of landscape character or on a landscape designation. A cumulative visual effect is

[190] *Based on EIA significance evaluation matrix, Institute of Environmental Management & Assessment, June 2011*

where the cumulative or incremental visibility of similar types of development combined generate a cumulative visual effect.

6.7.117. GLVIA 3 Table 7.1 makes the distinction between combined and sequential visual effects:

a. Combined: occurs where the observer is able to see two or more developments from one viewpoint; and

b. Sequential: occurs when the observer has to move to another viewpoint to see the same or different developments. Sequential effects may be assessed for travel along regularly used routes such as major roads or popular paths.

6.7.118. In accordance with the Planning Inspectorate's Advice Note on Cumulative Effects[191], a long list of cumulative schemes will be identified for the Zone of Influence as set out above under 'Study Area', considering Tier 1, Tier 2 and Tier 3 developments. Consideration will then be given as to whether or not the identified developments should progress to the assessment of cumulative effects based on their presence (or otherwise) within the ZVI. This will be clearly documented in the ES. Information on the development scoped into the cumulative effects assessment will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country Planning development and the Planning Inspectorate's register for DCO developments). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3.

6.7.119. The methodology for assessing landscape and visual cumulative effects for Tier 1 and Tier 2 developments will be broadly the same as that used for the assessment of the stand-alone effects, i.e. the significance of effect will be determined by assessing the sensitivity of the receptor (ranging from high to very low) in combination with the magnitude of change (ranging from high to no change). The cumulative effects assessment taking into consideration any Tier 3 development will be more qualitative as detailed information for these projects is unlikely to be available. The cumulative effects of other developments (both consented schemes and those registered as planning applications) and the Proposed Development will be assessed separately through an additional set of AVRs showing the Proposed Development alongside identified cumulative schemes.

Decarbonisation Readiness

6.7.120. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion.

6.7.121. Hydrogen Conversion does not materially influence the landscape and visual impacts or assessment. This is due to the basis of the assessment not materially changing as a result of the adoption of Hydrogen Conversion.

Mitigation

6.7.122. Impact avoidance and mitigation measures will be identified as an integral part of the master planning and EIA processes to help achieve landscape and visual integration and to minimise effects on the visual openness of the Green Belt. However, it should be noted that (1) the Development Consent Order for the Proposed Development will present a case that the Site is grey belt, and (2) loss of visual openness will not be given weight as a harm against the development if the grey belt argument is accepted.

6.7.123. Measures to mitigate the level of significant adverse effects at the enabling and construction stage will be secured through the project Construction Environmental Management Plan (CEMP), which will be agreed with the Buckinghamshire Council prior to commencement of works on site. Measures that are likely to be embedded in the CEMP include:

a. Careful control on the height and location of storage heaps for topsoil and other materials;

b. Protection of trees / shrubs / hedgerows to be retained;

[191] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment.*

c. Use of plywood hoardings to help enclose unsightly views of construction activities;

d. Use of water dampening measures during the enabling and construction processes to help control dust generation;

e. Wheel washing for site vehicles prior to leaving the Site so as to reduce unwanted debris spreading onto the local road network;

f. Careful disposal of all washings from concrete and cement lorries and from mixing plant;

g. Storage of waste materials created during construction in designated areas;

h. Control of construction plant movement; and

i. Use of directional temporary lighting to control light spillage and pollution.

6.7.124. Operational stage mitigation measures that are likely to be embedded within the design of the Proposed Development include the following:

a. Use of excavations to lower buildings into the ground and help reduce built form visibility;

b. Creation of new peripheral landforms and vegetation structures that are integrated into the local landscape, contribute to a high degree of visual containment and to a robust framework of multi-functional green infrastructure;

c. Sensitive distribution of the Energy Centre, Data Centre Campus, ancillary structures and storage areas within the Site in response to landscape, visual, ecological, geological and arboricultural constraints;

d. Sensitive alignment of roads, gas connections and electricity connections in response to landscape, visual, ecological, and arboricultural constraints;

e. Minimising the height, scale and massing of buildings and the heights of flues;

f. Consideration of the potential for green roofs and walls;

g. Provision of high quality architectural treatments, including sensitive design of colours and textures for building facades, to create a strong sense of identity and a positive contribution to the local landscape. An outer structure around the Energy Centre could also be used for both aesthetic and visual impact mitigation purposes;

h. Retention or re-alignment of public rights of way and / or permissive footpaths through the Site to conserve connectivity and visual amenity for footpath users;

i. Provision of new recreational routes within the Site and creation of a new publicly accessible Nature Park as a contribution to biodiversity net gain and for enhanced recreational usage of the Green Belt;

j. Provision of a more diverse array of vegetation and habitats to enhance wildlife and to build resilience against climate change; and

k. Provision of an effective landform and vegetation buffer between the Site and heritage assets on its eastern side, i.e. the Knight Templars' site at Moat Farm (Scheduled Monument) and Bulstrode Park (Grade II* listed Park and Garden).

Impacts to be Scoped Out

6.7.125. It is proposed to scope out:

a. The visual effects of vapour arising from the flues in operation as this is unlikely to be visible.

6.7.126. It is also proposed to scope out the following visual receptors:

b. Visitors to the Beaconsfield household recycling centre due to the short duration of visits and low levels of visual amenity at the centre; and

c. Residents of Beaconsfield, Gerrards Cross and Chalfont St Peter due to the effects of distance and / or the substantial enclosure of views towards the Site.

Summary

6.7.127. The following impacts will be scoped into the Environmental Impact Assessment:

a. Direct temporary and permanent impacts on the physical landscape;

b. Direct temporary and permanent impacts on the day-time and night-time character of the Site landscape;

c. Indirect temporary and permanent effects on day-time and night-time landscape character areas outside the Site, as defined in the south bucks district landscape character assessment and the Chiltern District landscape character assessment;

d. Indirect temporary and permanent effects on the visual settings of Bulstrode Park Historic Park and Garden and the knight templars' site at moat farm; and

e. Direct temporary and permanent effects on views and visual amenity of visual receptors within the study area, including:

   i. Users of PRoW within the Site and in the surrounding landscape;

   ii. People living at Hedgerley, Hedgerley Green and sporadic residential properties on the southern side of the M40; Moat Farm; the Wapseys Wood Caravan Site; the housing cluster in the northwestern corner of Bulstrode Park; and farmsteads / residential properties on the hillslopes north of the A40; and

   iii. Users of the M40, A40 and country roads.

6.8. PROJECT VULNERABILITY (MAJOR ACCIDENTS AND DISASTERS)

Introduction

6.8.1. It is considered that there is the potential for likely significant effects relating to Project Vulnerability (Major Accidents and Disasters) and so this topic shall be '**scoped in**' to the EIA. The major accidents and disasters assessment will be undertaken by Arup.

6.8.2. Major accidents are defined as '*Events that threaten immediate or delayed serious environmental effects to human health, welfare and / or the environment and require the use of resources beyond those of the client or its appointed representatives to manage*'[192]. Major accidents can be caused by disasters resulting from both man-made and natural hazards. A disaster is '*a man-made / external hazard (such as an act of terrorism) or a natural hazard (such as an earthquake) with the potential to cause an event or situation that meets the definition of a major accident*'[192].

6.8.3. In general, major accidents and disasters should be considered as part of an assessment where a development has the potential to cause the loss of life, permanent injury and / or temporary or permanent destruction of an environmental receptor which cannot be restored through minor clean-up and restoration.

6.8.4. The underlying objective of this assessment is to ensure that appropriate precautionary actions are taken for the Proposed Development, which, either because of its vulnerability to major accidents and natural disasters, or due to the processes undertaken, has the potential to have significant adverse effects on the environment. The Project Vulnerability (Major Accidents and Disasters) ES chapter will assess:

a. The relevant major accidents and disasters that the Proposed Development could be vulnerable to or could cause through the enabling and construction, and completed and operational phases;

b. The potential for these major accidents and disasters to result in likely significant adverse environmental effect(s); and

c. The measures that are in place, or that need to be in place, to prevent or mitigate the likely significant adverse effects of such events on the environment.

Policy, Legislation and Guidance

Legislation

6.8.5. With reference to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the IP EIA Regulations), this section of the EIA Scoping Report considers whether there are likely to be any significant effects on the environment or the Proposed Development arising from the vulnerability of the Proposed Development to major accidents or disasters.

6.8.6. Regulation 5(4) of the IP EIA Regulations provides that the significant effects of the proposed development to be assessed as part of the EIA must include *'where relevant, the expected significant effects arising from the vulnerability of the proposed development to major accidents or disasters that are relevant to that development*.'

6.8.7. Schedule 4 (information for inclusion in environmental statements) to the IP EIA Regulations includes at paragraph 5(d): '*A description of the likely significant effects of the development on the environment resulting from, inter alia— (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters)*'. In addition, paragraph 8 of this Schedule makes reference to: '*A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are*

[192] *Institute of Environmental Management and Assessment (2020). Major Accidents and Disasters in EIA: A Primer. Available at: https://www.iema.net/resources/reading-room/2020/09/28/major-accidents-and-disasters-in-eia-an-iema-primer. Accessed: 20 January 2026.*

relevant to the project concerned' and that '*Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies*.'

6.8.8. Other key legislation to be considered through assessment, including such that is in place to help prevent or mitigate an incidence of major accidents and disasters, includes:

a. Civil Contingencies Act 2004[193] which provides statutory duties on resilience planning and informs major accidents and disasters assessments regarding emergency planning;

b. Control of Major Accident Hazards Regulations 2015[194] (the COMAH 2015 Regulations), which are relevant if dangerous substances thresholds are exceeded on-site or at neighboring establishments (consideration of external "domino" risks);

c. Health and Safety at Work etc. Act 1974[195], setting the overarching duties that underpin identification and control of hazards relevant to major accidents and disasters;

d. The Construction (Design and Management) Regulations 2015[196], relevant for assessing hazards arising from construction activities, a key part of major accidents and disasters risk and for designing-out foreseeable risks;

e. The Management of Health and Safety at Work Regulations 1999[197], which establishes the risk assessment/management framework relevant to major accidents and disasters; and

f. The Workplace (Health, Safety and Welfare) Regulations 1992 which sets minimum physical standards for the occupied workplace and supports controls around safe egress, internal traffic movement, and emergency access/lighting in the operational phase.

Policy

6.8.9. The UK has formally designated data centres as part of the UK's Critical National Infrastructure (CNI), to strengthen security, resilience and coordinated protection against cyber, physical, and environmental threats.[198]

6.8.10. Key policy considerations include:

a. Energy National Policy Statements[199], including EN-1, EN-2 and EN-5, are applicable to the Energy Centre and transmission aspects of the Proposed Development. Data centres are also now classed as Critical National Infrastructure by the UK Government. These policy documents provide planning guidance for developers of nationally significant infrastructure;

b. Health and Safety Executive's (HSE) land use planning methodology[200] which defines development sensitivity and consultation requirements for proposals near hazardous installations and major accident hazard pipelines;

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[193] *HM Parliament (2004) Civil Contingencies Act 2004. Available at: https://www.legislation.gov.uk/ukpga/2004/36/contents. Accessed: 21 January 2026.*

[194] *HM Parliament (2015) The Control of Major Accident Hazards Regulations 2015. Available at: https://www.legislation.gov.uk/uksi/2015/483/contents. Accessed: 21 January 2026.*

[195] *HM Parliament (1974) Health and Safety at Work etc Act 1974. Available at: https://www.legislation.gov.uk/ukpga/1974/37/contents. Accessed: 21 January 2026.*

[196] *HM Parliament (2015) The Construction (Design and Management) Regulations 2015. Available at: https://www.legislation.gov.uk/uksi/2015/51/contents. Accessed: 21 January 2026.*

[197] *HM Parliament (1999) The Management of Health and Safety at Work Regulations 1999. Available at: https://www.legislation.gov.uk/uksi/1999/3242/contents. Accessed: 22 January 2026.*

[198] *HM Government (12 September 2024) Press release – Data centres to be given massive boost and protections from cyber criminals and IT blackouts Available at: https://www.gov.uk/government/news/data-centres-to-be-given-massive-boost-and-protections-from-cyber-criminals-and-it-blackouts. Accessed: 22 January 2026.*

[199] *HM Government (2026) National Policy Statements for energy infrastructure. Available at: https://www.gov.uk/government/collections/national-policy-statements-for-energy-infrastructure. Accessed: 22 January 2026. Department for Energy Security and Net Zero (2026) National Policy Statements for energy infrastructure. Available at: https://www.gov.uk/government/collections/national-policy-statements-for-energy-infrastructure. Accessed: 22 January 2026.*

[200] *Health and safety executive (2026) HSE's land use planning methodology. Available at: https://www.hse.gov.uk/landuseplanning/methodology.htm.*

c. National Planning Policy Framework[201], setting out the requirement to consult appropriate bodies when considering applications for the siting of, or changes to, major hazard sites, installations or pipelines, or for development around them; and

d. Planning Practice Guidance[202] on application of the National Planning Policy Framework.

Guidance

6.8.11. The IEMA (now rebranded as ISEP) Major Accidents and Disasters in EIA: A Primer[192] sets the core guidance applicable to an assessment of major accidents and disasters, offering a best practice approach to assessment and key definitions.

6.8.12. In addition to the IEMA Primer, relevant guidance to the assessment of major accidents and disasters includes:

a. Buckinghamshire Council's Emergency Planning and Response advice[203];

b. Emergency Response and Recovery[204] government guidance, providing guidance for those involved in emergency response and recovery preparations;

c. Information and guidance on COMAH[205] from the Health and Safety Executive;

d. National Risk Register 2025[206], outlining the most serious risks facing the United Kingdom;

e. Preparation and planning for emergencies: responsibilities of responder agencies and others[207] government guidance on applying the Civil Contingencies Act 2004[208]; and

f. Thames Valley Community Risk Register (CRR)[209].

6.8.13. Additional legislation, policy and guidance may be applicable during the EIA process, and this will be referred to as appropriate at the time of writing.

Baseline Conditions

Study Area

6.8.14. The study area for the assessment of major accidents and disasters is not defined through a standardised methodology, however guidance[192] suggests that the spatial scope should include external features that may present a hazard to the Proposed Development, even if these are beyond the Proposed Development boundaries.

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[201] *Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities (2025) National Planning Policy Framework. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2. Accessed: 22 January 2026.*

[202] *Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities (2024) Planning practice guidance. Available at: https://www.gov.uk/government/collections/planning-practice-guidance Accessed: 22 January 2026.*

[203] *Buckinghamshire Council (2023), Preparing for emergencies. Available at: https://www.buckinghamshire.gov.uk/community-and-safety/planning-for-emergencies/are-you-ready/. Accessed: 22 January 2026.*

[204] *Cabinet Office (2013) Emergency Response and Recovery. Available at: https://www.gov.uk/guidance/emergency-response-and-recovery. Accessed: 22 January 2026.*

[205] *HSE (2015), Information and guidance on COMAH. Available at: https://www.hse.gov.uk/comah/guidance.htm. Accessed: 22 January 2026.*

[206] *Cabinet Office (2025), National Risk Register 2025. Available at: https://www.gov.uk/government/publications/national-risk-register-2025 Accessed: 22 January 2026.*

[207] *Cabinet Office (2013), Preparation and planning for emergencies: responsibilities of responder agencies and others. Available at https://www.gov.uk/guidance/preparation-and-planning-for-emergencies-responsibilities-of-responder-agencies-and-others. Accessed: 22 January 2026.*

[208] *HM Parliament (2004) Civil Contingencies Act 2004. Available at: https://www.legislation.gov.uk/ukpga/2004/36/contents. Accessed: 22 January 2026.*

[209] *Thames Valley Local Resilience Forum (December 2022), Community Risk Register. Available at: https://www.thamesvalleylrf.org.uk/risk/the-community-risk-register/. Accessed: 22 January 2026.*

6.8.15. For the purposes of the Proposed Development the following distances have been used to set the general study area to determine sources of potential major accidents and disasters to the Proposed Development:

a. Airports and airfields within approximately 13km of the Site (the legal distance of the safeguarding zone for licensed airports in the UK);

b. COMAH facilities within 3 miles (~4.8km) of the Site (the distance set by the COMAH 2015 Public Information Search);

c. Major accident hazard pipelines within 500m of the Site: Based on professional judgement, it is anticipated that the consequences from a worst-case fire / explosion at a major accident hazard pipeline would not exceed 500m;

d. Strategic roads and rail infrastructure crossing or directly bordering the Site: Based on professional judgement, it is anticipated the consequences from a worst-case road / rail incident would not exceed close proximity to the Proposed Development;

e. Transmission (gas, electrical, oil / fuels) crossing or directly bordering the Site: Based on professional judgement, it is anticipated the consequences from a worst-case strike of utilities during construction works would not exceed the boundary of the Site itself;

f. Natural features which may lead to a risk e.g. flooding, wildfire or subsidence within 500m of the Site: It is anticipated that the most severe effects will be limited to close proximity to the Proposed Development e.g. ground or water-based hazards. An area of 500m is based on professional judgement of the typical extent of these effects; and

g. Landfill facilities within 500m of the Site: Based on professional judgement, it is anticipated that the consequences from worst-case landfill would not exceed 500m. Landfill sites consisting of significant hazardous waste may be subject to COMAH 2015 Regulations.

Current Baseline Conditions

General

6.8.16. The Site (as defined by the Proposed Order Limits, and as described in the *Site and Project Description* section of this Scoping Report) comprises approximately 75.6 hectares (ha) of land and is located north of the M40 motorway and south of the A40 Oxford Road. The Site comprises vegetation with open fields around the southern, eastern and western ends. The Main Development Area of the Site (as defined in the *Site and Project Description* section of this Scoping Report) comprises an area of approximately 22.3ha.

6.8.17. The Site has a history of mineral extraction and landfill activities and is currently operated by Veolia. Active landfilling of inert building waste has now ceased albeit some landfill related activities are ongoing (including leachate treatment and a landfill gas (methane) energy centre) in conjunction with the capping and restoration of the landfill. The existing methane pipeline network associated with the landfill cells runs below ground within the western part of the Site (as defined by the Proposed Order Limits), and also runs partly above ground within the western part of the Wider Ownership Area, with a short section extending into the Main Development Area. There are multiple pressurising points connected to the pipeline throughout its length within the Wider Ownership Area and the Site.

6.8.18. The existing risks to the current site operations relate to the potential for pollution incidents and contamination of the ground through the landfilling activities, and operation of the gas-fired energy centre. This is controlled through the existing environmental permit for the landfill, will be controlled through a new permit being applied for for the Energy Centre, and through the associated consented capping and restoration works that are ongoing.

Airports

6.8.19. Denham Aerodrome is approximately 6km east of the Site. There are no other aerodromes within 13km of the Site.

COMAH Facilities

6.8.20. There are no COMAH facilities within 4.8km of the Site[210].

Major accident hazard pipelines

6.8.21. Information regarding major accident hazard pipelines within 500m of the Site could not be sourced at Scoping stage. This will be re-examined at ES stage with consultation to the relevant bodies.

Strategic roads and rail infrastructure

6.8.22. There are two strategic roads in proximity to the Site, including the M40 and the A40. The M40 directly borders the southern extent of the Site, whereas the A40 borders two shorter sections along the northern boundary. There is no rail infrastructure crossing or directly bordering the Site.

Transmission (gas, electrical, oil/fuels)

6.8.23. An existing high-pressure gas pipeline runs north to south along the western extent of the Site boundary. There is also a 400kV overhead power line that runs through the eastern part of the Site on an approximate north-south alignment. Further consultation with the relevant bodies to understand any further assets relevant to the Site will be undertaken at ES stage.

Natural features and hazards

6.8.24. There is an area of potential open mosaic habitat within the Site, on previously developed land. Deciduous woodland is present within the Site, with some Ancient Woodland directly adjacent (but within the Wider Ownership Area).

6.8.25. The Site is not located within an area of flood risk from the source of rivers and seas. However, there are pockets of the Site at risk from surface water flooding due to the presence of ponds or areas of ponded rainwater due to the natural topography of the Site[211].

6.8.26. Thames Valley CRR[212], as used by Buckinghamshire Council, provides information on emergencies that could happen within Thames Valley and therefore Buckinghamshire Council, together with the impacts of how likely they are to happen and in the case that they do, their subsequent impacts. The hazard sources within the CRR that have the potential to impact the Site include:

a. Flooding from fluvial (rivers and streams), pluvial (surface water) and groundwater sources;

b. Severe weather due to climate change – the UK is likely to experience an increase in the frequency and severity of extreme weather; and

c. Major fires, for example natural causes including lightning, spells of hot, dry weather.

6.8.27. The baseline that will be presented within the assessment will build upon that set out above, using baseline information presented within other technical assessments of the ES where relevant. The information will be used to establish existing hazard sources at the Site that may impact the Proposed Development and to fully identify the relevant receptors.

Future Baseline Conditions

6.8.28. The Future Baseline is a baseline condition at an indeterminate point in the future in the absence of the Proposed Development being implemented, for a scenario which considers potential changes as a result of the following:

a. Natural changes, patterns and trends; and

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[210] *HSE (2015) COMAH 2015 Public Information. Available at: https://notifications.hse.gov.uk/COMAH2015/search.aspx. Accessed: 21 January 2026.*

[211] *UK Government (2026) Flood Map for Planning. Available at: https://flood-map-for-planning.service.gov.uk/map?seq=sw,hr&cz=496843,188908.9,16.56. Accessed 21 January 2026.*

[212] *Thames Valley Local Resilience Forum (2022) Community Risk Register. Available at: https://www.thamesvalleylrf.org.uk/ Accessed: 20 January 2026].*

b. Changes that could occur in accordance with plan and policy.

6.8.29. Changes that could occur as a result of cumulative schemes are considered within the Cumulative Effects Assessment section (see *Section 5.13* of this EIA Scoping Report).

6.8.30. It is expected that the current landfill on site will continue to be capped and restored and in the absence of alternative development the land remains undeveloped and part of the wider Site. The current adopted local plan is South Bucks District Local Plan which was adopted in March 1999 and subsequently consolidated in September 2007 and February 2011[213]. It remains relevant for determination of planning applications in the district. South Bucks Core Strategy was adopted in 2011[214], and sets out the long-term vision, objectives and broad strategy for accommodating future development in the District in the period to 2026. The Core Strategy provides flexibility to other developments that may not have been of priority during publication, and contribute to the current infrastructure needs whilst protecting the green belt (Core Policy 17). A new Local Plan for Buckinghamshire is in development[215], and at present information on site allocations is not available but this will be reviewed during the ES stage to understand any possible further future baseline context for the Site.

6.8.31. There are pockets of the Site susceptible to surface water flooding. There may therefore be potential for the future risk of flooding at the Site to be exacerbated by climate change, as detailed within Table 27 of *Section 6.3: Climate Change and Greenhouse Gases*.

Receptors

6.8.32. Environmental receptors that may be at risk in the event of a major accident and / or disaster are those close enough to be impacted by a major accident and / or disaster during both the enabling and construction works, and once the Proposed Development is complete and operational. The receptors included mirror the requirements of Schedule 4, Paragraph 5 to the IP EIA Regulations, and are as follows:

a. Members of the public and local communities;

b. Infrastructure and the built environment;

c. The natural environment, including ecosystems, land and soil quality, air quality, surface and groundwater resources and landscape; and

d. The historic environment, including archaeology and built heritage.

6.8.33. The specific potential receptors within those categories are reported in the relevant technical topic sections of this EIA Scoping Report, and will be reviewed at the ES stage.

Establishing Receptor Sensitivity

6.8.34. The sensitivity of a receptor is a function of its value, and capacity to accommodate change reflecting its ability to recover if it is affected. It is typically defined by the following factors:

a. Adaptability – the degree to which a receptor can avoid, adapt to or recover from an effect;

b. Tolerance – the ability of a receptor to accommodate temporary or permanent change; and

c. Recoverability – the temporal scale over and extent to which a receptor will recover following an effect.

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[213] *South Bucks District Council (2011) South Bucks Local Development Framework Core Strategy Development Plan Document. Available at: https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/South_Bucks_Core_Strategy_-_Adopted_February_2011_bb48FA7.pdf. Accessed 16 February 2026.*

[214] *South Bucks District Council (2011), South Bucks Core Strategy – Adopted February 2011. Available from: https://media.buckinghamshire.gov.uk/documents/South_Bucks_Core_Strategy_-_Adopted_February_2011_bb48FA7.pdf. Accessed 31 March 2026.*

[215] *Buckinghamshire Council (2026) The Local Plan for Buckinghamshire. Available at: https://www.buckinghamshire.gov.uk/planning-and-building-control/planning-policy/local-planning/buckinghamshire-local-plan/. Accessed 21 January 2026.*

6.8.35. There is no set definition of receptor sensitivity for major accidents and disasters assessment, instead context is taken from the specific potential receptors reported in the relevant technical topic sections of this EIA Scoping Report to feed into the overall assessment process.

Assessment of Effects

6.8.36. The ES chapter will assess:

a. The potential for major accidents and disasters impacts throughout the enabling and construction works and as a result of the completed development and resultant major accident and disaster effects;

b. The likely significant major accident and disaster effects;

c. Any required mitigation or monitoring to address any likely significant adverse major accident and disaster effects; and

d. The potential for cumulative effects in relation to major accidents and disasters with other agreed upon schemes in the surrounding area.

6.8.37. Considering the current baseline context determined through scoping and typical works associated with the Proposed Development, the above assessments will be provided for the following broad risk events to determine project vulnerability and potential for significant effects:

a. Ground collapse (including ground instability / slope failure);

b. Major road traffic incident;

c. Physical damage or contamination of surface or groundwater resource;

d. Fire, explosion, release or exposure to harmful gas / materials;

e. Extreme weather impact (e.g. flood, drought, heat wave, snow, high winds);

f. Collapse / damage to structures/infrastructure;

g. Fatality / injury to member of public i.e. pedestrians, equestrians using Public Rights of Way through the Site;

h. Increased risk associated with neighboring hazardous facilities (none currently identified within the study area but kept in for review during the ES stage);

i. Damage to designated environmental receptor;

j. Airport related incident;

k. Release of and / or exposure to harmful and hazardous materials during excavation;

l. Exposure to live conductor;

m. Working near overhead powerlines;

n. Impact upon emergency response / evacuation procedure, including for hazardous facilities; and

o. Acts of terrorism (physical and cyber related).

6.8.38. This list of broad risk events will remain subject to review during design development and may therefore change as more information becomes available during the course of the ES stage.

6.8.39. The guidance from IEMA[192] states that the major accidents and disasters topic can be scoped out of detailed assessment if it can be demonstrated that:

a. There is no source-pathway-receptor linkage of a hazard that could trigger a major accident and / or disaster or potential for the Proposed Development to lead to a significant environmental effect; and

b. All possible major accidents and/or disasters are adequately covered elsewhere in the assessment or covered by existing design measures or compliance with legislation and best practice.

6.8.40. If the above cannot be demonstrated, then the topic must be scoped in. At present these factors cannot be confirmed for the Proposed Development and therefore it is proposed to be scoped in for further assessment.

6.8.41. To assess the above on a preliminary basis, an initial risk identification exercise has been undertaken at the scoping stage. The risk identification assessment, set out in Table 60 and Table 61 considers the source-pathway-receptor model in terms of risks to environmental receptors during construction and operation of the Proposed Development, and the reasonable worst case that could occur. Through compliance with health and safety legislation, risks to employees will be mitigated to as low as reasonably practicable (ALARP). Appropriate security measures including a secure boundary fence for the Site will reduce the likelihood of trespass to ALARP. These would be reviewed and subject to further assessment at the ES stage to confirm identified risk events are managed as low as reasonably practicable.

Enabling and Construction Effects

6.8.42. The broad risk events and their potential for significant effects during the enabling and construction phase are outlined in Table 60. Possible mitigation available is outlined but is not yet secured. These possible measures are the subject of ongoing consideration, including as part of consultation with statutory consultees, as appropriate.

Table 60 Risk events and associated potential effects (Enabling and Construction)

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
Ground collapse (including ground instability / slope failure)	Presence of ground conditions which are susceptible to subsidence e.g. construction over historic landfill. Slope instability triggered whilst working on sidelong ground. Construction results in ground disturbance and/or vibration, causing ground instability.	Localised collapse and subsidence of ground at the surface. Irreversible damage to environmental receptor (listed building, ecological site, watercourse and/or ponds, groundwater etc.). Cause of major road traffic accident causing injury/fatality and/or harm to adjacent receptors, spillage of pollutants.	Locations of below ground risk/hazard to be identified and fed into the design and construction. Consultation with relevant agencies and owners/operators of the Site and review of their records. The Proposed Development will avoid building over or through known areas of ground instability as far as reasonably practicable. Modelling and settlement calculations to be undertaken at detailed design stage if required. Risk assessment, monitoring and management measures as appropriate of overlying structures/infrastructure. Stakeholder engagement and grievance mechanism. Use of industry standard construction methods, including stepped excavations.
Major road traffic incident	Construction adjacent to existing highways / motorways, resulting in falling object/plant interaction, which causes traffic incident. Construction activity causes visual distraction to road users resulting in traffic incident. Construction traffic on public roads / adjacent to public rights of way (PRoW) (particularly small local roads) leading to traffic incident. Realignment / diversions of existing road infrastructure/ PRoW during construction leading to traffic incident. Traffic incident results in flying debris.	Fatality / injury to motorist(s)/non-motorised user(s) or other member(s) of public. Debris striking traffic/member(s) of public, resulting in fatality / injury.	Consultation with National Highways, local authorities, and other asset owners to manage interfaces and define appropriate control measures. Any diversions and realignments to be subject to detailed design and safety audit processes to seek to minimise the risk of accidents. Planning of delivery routes and timing of deliveries to be undertaken. Construction Management Plan to require traffic management measures to be implemented during the construction on or adjacent to public roads, bridleways, footpaths and other PRoW affected by the Proposed Development as necessary.
Physical damage or contamination of surface or groundwater source	Construction through existing contaminated sites (including historic landfill and landfill cells for excavated materials) mobilises contaminants in proximity to surface and groundwater. Construction encounters unknown water abstraction point.	Pollution of groundwater / surface water receptors due to release of contaminants. Irreversible damage to environmental receptor (watercourse). Contamination and/or loss of drinking water supply.	Locations of below ground assets or areas of risk identified and fed into the design and construction. Consultation with the Environment Agency, local authorities, landfill operators to manage interfaces and define appropriate control measures, to be undertaken in accordance with Environment Agency procedures.

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
			Construction Management Plan to set out pollution prevention measures and measures to reduce potential impacts to water resources.
Fire, explosion, release or exposure to harmful gas / materials	Construction adjacent to / over sources of ground gas (i.e. historic landfill / gas storage) which mobilises gas and/or damages the asset causing fire, explosion, and / or release of harmful gas. Construction strikes unexploded ordnance (UXO) causing an explosion. Construction strikes underground utilities / services causing fire or explosion.	Fire and / or explosion/release of harmful materials / gas affects neighbouring property (potentially causing damage) and / or injury / fatality to member(s) of the public.	Locations of below ground hazard / risk (e.g. UXO) identified and fed into the design and construction. All major utilities that interface with the Proposed Development infrastructure to be diverted away from the Proposed Development prior to commencing early works, where possible and appropriate to do so. Consultation with appropriate stakeholders such as Site owners / operators, utility providers, and Environment Agency to manage interfaces and define appropriate control measures. Construction Management Plan to include specific requirements to prevent fire, and to carry out risk assessments for the possibility of UXO being encountered.
Extreme weather impact (e.g. flood, drought, heat wave, snow, high winds)	Presence of construction results in a worsening of extreme weather impacts.	Irreversible damage to property / infrastructure. Worsened extreme weather impact leads to fatality / injury to member or members of public. Irreversible damage to environmental receptor.	Hydraulic modelling undertaken and floodplain extent taken into account during construction planning. Construction Management Plan to include measures for contractors to manage risks of pollution due to severe weather events, to inform themselves of the potential for severe weather and put in place contingency plans to ensure the resilience of other mitigation required in the Construction Management Plan in the event of severe weather. Location of stockpiles to consider predominant wind direction relative to sensitive receptors, away from flood zones and sensitive watercourses where practicable, and covered where necessary. Resilience measures to be implemented through the design process and/or during the construction and operational stages of the Proposed Development to address potential climate change impacts.
Collapse / damage to structures / infrastructure	Construction activity results in ground disturbance / vibration adjacent to existing infrastructure.	Collapse of structure/infrastructure affects a public area causing fatality / injury to member(s) of public. Falling debris affecting a public area causing fatality / injury to member(s) of public. Release of harmful contaminants onto land or surface water receptors leads to irreversible damage to environmental receptor.	Locations of below ground risk / hazard to be identified and fed into the design and construction. Relevant stakeholder consultation, risk assessment and monitoring and management measures of overlying structures / infrastructure. Adequate separation between construction works and public areas. Stakeholder engagement and grievance mechanism as part of a complaint's procedure.

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
			Application of necessary management plans, including measures for the use of best practicable means for vibration prevention and reduction, crane operation and lifting procedures.
Fatality / injury to member of public i.e. pedestrians, equestrians using public rights of way through the Site	Construction activity and traffic above / adjacent to areas members of the public are present.	Fatality / injury to member(s) of public.	Appropriate diversions / alternative routes and access points to be identified and agreed. Compliance with CDM Regulations 2015 to be maintained which include appropriate measures to segregate and fence off construction areas from the public. Relevant stakeholder consultation, risk assessment and monitoring and management measures. Stakeholder engagement and grievance mechanism. Construction Traffic Management Plan in place.
Increased risk associated with possible unidentified neighbouring hazardous facilities / major hazard pipelines	Construction requires closure /diversion of an emergency response route making routes inaccessible to emergency services to deal with incident and/or those evacuating. Construction traffic causes/ exacerbates congestion on emergency response routes causing delays to emergency service response to deal with incident and/or evacuation of a hazardous facility. Accidental construction impact on major hazard assets (such as pipeline), increasing risk of major accident occurring.	Fatality / injury to member(s) of public. Delay to emergency response leading to fatality/injury to member(s) of public. Irreversible damage to environmental receptor (listed building, ecological site, watercourse/ponds etc.).	Consultation with the HSE, local authorities, and utility providers to manage interfaces and define appropriate control measures. Early engagement with the emergency services and operators of any affected facilities. Appropriate diversions / alternative routes and access points to be identified and agreed. Any major utilities that interface with the Proposed Development infrastructure to be diverted away from the Proposed Development as part of early works, where possible and appropriate to do so. Traffic management measures to be implemented during the construction of the Proposed Development on or adjacent to public roads, bridleways, footpaths and other PRoW affected by the Proposed Development as necessary.
Increased risk associated with working near overhead powerlines	Presence of high voltage overhead powerlines adjacent to northeast of the Site. Construction plant, and non-road mobile machinery operating in proximity to live conductors.	Fatality / injury to member(s) of public. Delay to emergency response leading to fatality / injury to member(s) of public. Irreversible damage to environmental receptor (listed building, ecological site, watercourse / ponds etc.). Disruption to regional electricity networks potentially leading to power outages affecting sensitive receptors (e.g. residential, commercial, or infrastructure). Disruption to overhead lines from construction traffic leading to safety and environmental concerns.	Consultation with the HSE, local authorities, and utility providers to manage interfaces and define appropriate control measures. Following National Grid guidance, risk assessments and separation distances for working near overhead lines. Early engagement with the emergency services and operators of any affected facilities. Any major utilities that interface with the Proposed Development infrastructure to be diverted away from the Proposed Development as part of early works, where possible and appropriate to do so.

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
			Traffic management measures to be implemented during the construction of the Proposed Development on or adjacent to public roads, bridleways, footpaths and other PRoW affected by the Proposed Development as necessary.
Damage to environmental receptor	Construction activity results in damage upon statutory designated or locally important ecological site.	Irreversible damage to environmental receptor (listed building, ecological site, watercourse / ponds etc.).	The Proposed Development to avoid existing environmental features as far as possible. Construction Management Plans to set out measures to reduce potential impacts to water resources and ecological resources. Incident management plans to be developed and communicated sufficiently early enough to influence construction phase plans regarding locations of evacuation/emergency refuge areas which avoid environmental receptors.
Exposure to live conductor	Electrification hazard from exposure to live conductor during the enabling and construction works	Fatality / injury to construction workers.	Electrical works to be undertaken by suitably qualified professionals. Appropriate PPE to be provided when working near electricity. Training to be undertaken for construction workers relating to electrical hazards.
Airport related incident	Construction activity results in incident affecting airport infrastructure, or approaching / departing flights. Construction activity results in creation of new bird flight paths and increased risk of bird strike through location / construction of mitigation planting or topsoil stripping.	Aircraft incident results in fatality / injury to member(s) of public. Irreversible damage to environmental receptor (listed building, ecological site, watercourse/ponds etc.).	Consultation with Denham Aerodrome to manage interfaces and define appropriate control measures. Aerodrome safeguarding assessment to be undertaken at detailed design if necessary. Appropriate actions to be agreed with relevant stakeholders to ensure any identified risks are managed to be as low as reasonably practicable.
Release of and / or exposure to harmful and hazardous materials during excavation	Presence of buried harmful materials related to the Site's history as a former landfill site.	Uncontrolled release and exposure of members of the public to harmful material.	Consultation with the Environment Agency, local authorities, and owners / operators of the Site to understand locations, nature of the waste deposited and the integrity / construction design of landfills to feed into the design and construction. Locations of risk / hazard e.g. asbestos to be identified and managed in line with relevant construction management plans. Stakeholder engagement and grievance mechanism.
Acts of terrorism (physical and cyber related)	Acts of terrorism affecting the construction of the Proposed Development via cyber-attack. Physical acts of terrorism upon the Site during the enabling and construction works.	Damage to property / infrastructure, including aspects of the Proposed Development under construction. Fatality/injury to construction workers and / or member(s) of public immediately adjacent to the Site.	Measures to be in place to reduce vulnerability to cyber-attack and malware. Secure perimeter to be maintained.

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
		Irreversible damage to environmental receptor (listed building, ecological site, watercourse etc.).	Threat and Vulnerability Risk Assessment to be undertaken and security strategy to be developed for the Proposed Development.

Completed Development and Operational Effects

6.8.43. The broad risk events and their potential for significant effects once the Proposed Development is complete and operational are outlined in Table 61. Possible mitigation available is outlined. These possible measures are the subject of ongoing consideration, including as part of consultation with statutory consultees, as appropriate. Once operational, data centres are recognised by the UK Government as CNI, therefore will be subject to appropriate security protection measures[216], which will be reported upon within the ES.

Table 61 Risk events and associated potential effects (Completed Development)

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
Major road traffic incident, and/or transportation of explosive / hazardous materials e.g. fuels, ammonia	Presence of new infrastructure causes visual distraction leading to major road traffic incident.	Fatality / injury to motorist(s) / non-motorised user(s) or other member(s) of public.	All new infrastructure designed would be subject to detailed design and safety audit processes to seek to minimise the risk of accidents. Potential for errant vehicle protection and barriers to minimise risk associated with visual distraction to drivers. No reflective materials are proposed, and therefore there is no risk of impacts relating to glint and glare.
Mechanical Failures	Risk of power failure event where backup generators are used, delivery of replacement fuel will be required leading to large quantities depending on length of the outage. Potential for fire/explosion from large amounts of fuel stored on Site.	Drift of fire causing damage to public property and/or Proposed Development. Irreversible damage to environmental receptor (listed building, ecological site etc.) Discharge of contaminated firewater to ground. Failure of cooling of infrastructure.	All new infrastructure designed would be subject to detailed design and safety audit processes to seek to minimise the risk of accidents. Routine inspection, and monitoring of infrastructure. Incident Management Plan A fire management strategy to be developed for the Proposed Development. Fire suppressant system to be in place. Firewater run-off managed in accordance with environmental permitting requirements. Adherence to COMAH Regulations 2015
Fire and / or explosion, either direct or indirect harm	Fire in or adjacent to Proposed Development such as from waste within the capped landfill cells. Fire/explosion from hydrogen and/or natural gas use on site and/or hydrogen pipeline. Fire/explosion from the large amounts of fuel stored on Site for the energy data and backup generators of the Data Centre Campus.	Drift of fire causing damage to public property and/or Proposed Development. Irreversible damage to environmental receptor (listed building, ecological site etc.) Discharge of contaminated firewater to ground	Proposed Development to be built to relevant industry standards and operated in accordance with an environmental permit. Landfill managed and operated in accordance with its existing environmental permit. A fire management strategy to be developed for the Proposed Development. Fire suppressant system to be in place. Firewater run-off managed in accordance with environmental permitting requirements.

[216] *UK Government (2024) Press release Data centres to be given massive boost and protections from cyber criminals and IT blackouts. Available at: https://www.gov.uk/government/news/data-centres-to-be-given-massive-boost-and-protections-from-cyber-criminals-and-it-blackouts [Accessed 16.02.2026].*

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
			Adherence to COMAH Regulations 2015
Extreme weather (e.g. flood, drought, heat wave, snow, high winds).	Presence of infrastructure associated with the Proposed Development leads to alteration of flood patterns. Adverse weather causes failure of any required earthworks leading to landslides.	Worsened extreme weather impact leads to fatality / injury to member(s) of public. Irreversible damage to environmental receptor (listed building, ecological site, watercourse etc.). Damage to property / infrastructure. Pollution of groundwater / surface water.	Proposed Development designed in line with climate change allowances, including, but not limited to, buildings and site infrastructure that are resilient by design, ensuring sufficient site drainage and the use of Sustainable Drainage Systems (SuDS), and ensuring cooling systems are designed to withstand heatwaves and higher future average temperatures. Drainage infrastructure to be designed to ensure that no increases in surface water runoff occur from the footprint of the Proposed Development, including an allowance for increases in peak rainfall intensity predicted to occur due to climate change allowances. Proposed Development located outside of floodplains, where practicable. Design structures for high winds, including provision of barriers where necessary. Protection, monitoring and aftercare management of reinstated areas and created habitats, including remedial works as required. Resilience measures to be implemented through the design process and / or during the construction and operational stages of the Proposed Development address potential climate change impacts identified so that all climate change risks are managed (see Climate Change Topic Sheet).
Fatality / injury to member of public i.e. pedestrians, equestrians using public rights of way through the Site	Flooding Object falling from infrastructure (including during high winds) strikes member of the public.	Fatality / injury to member of public.	Proposed Development design to take into consideration extreme weather events, including climate change. Appropriate planning of maintenance work, including the implementation of a safe system of working.
Emergency response impacts on designated environmental receptors	Incident management plans focus on the safe evacuation of staff and have the potential to have an adverse effect on local receptors near an incident.	Irreversible damage to environmental receptor (listed building, ecological site, watercourse etc.).	Incident management plans to be developed and communicated sufficiently early enough to influence design. These should include consideration of the local environment and community. Incident management plans to be developed, maintained and audited in accordance with environmental permitting requirements. Integrity of communications and processes in event of incident.
Exposure to live conductor	Electrification hazard from infrastructure required for the Proposed Development	Fatality / injury to member(s) of public.	Earthing and bonding to be undertaken in line with relevant industry standards.

Risk event	Hazard sources and/or pathway	Reasonable worst consequence	Possible mitigation available (to be confirmed through assessment)
			Provision of a secure boundary and other appropriate measures to reduce likelihood of contact with electrical infrastructure associated with the Proposed Development. Electrical infrastructure designed to appropriate parameters, including adverse weather and climate change.
Airport related incident	Presence of mitigation planting attracts large flock forming birds, increasing the risk of bird strike, subsequently increasing the risk of an aircraft related incident. Potential for Energy Centre stack flues, increasing the risk of aircraft related incident.	Aircraft incident results in fatality / injury to member(s) of public and / or irreversible damage to environmental receptor (listed building, ecological site, watercourse etc.). Pollution of groundwater / surface water receptors because of release of contaminants.	Consultation with Denham Aerodrome to manage interfaces and define appropriate control measures. At the time of writing, stack heights have not been confirmed. As a result, the need for consultation with the CAA will be kept under review as the design of the Proposed Development progresses. Mitigation planting designed to minimise the risk of / the presence of large flock forming birds. Lighting will be incorporated as necessary for site security and aviation lighting on the stacks.
Acts of terrorism (physical and cyber related)	Acts of terrorism affecting the operation of the Proposed Development via cyber-attack. Physical acts of terrorism upon the operational site.	Damage to property/ infrastructure (including damage to Critical National Infrastructure, given that the data centres will be designated as such upon becoming operational). Fatality/injury to member(s) of public immediately adjacent to the Site. Irreversible damage to environmental receptor (listed building, ecological site, watercourse etc.).	Measures to be in place to reduce vulnerability to cyber-attack and malware. Secure perimeter to be maintained. Threat and Vulnerability Risk Assessment to be undertaken and security strategy to be developed for the Proposed Development.

Assessment Methodology

6.8.44. The assessment methodology follows that outlined in IEMA guidance[192] for the assessment of major accidents and disasters.

Establishing the Baseline

6.8.45. Existing sources of risk assessment and information will be used to inform the assessment to confirm the hazards that will be assessed. This will include a detailed review to supplement that already outlined during this scoping stage of:

a. National Risk Register[206];
b. Thames Valley CRR[209];
c. COMAH Site Register[210]; and
d. Proposed Development Risk Register.

6.8.46. In addition, the baseline for identifying source-pathway-receptors links relevant to the Proposed Development will be reviewed through the identification of:

a. Potential natural hazards that may impact the Site;
b. Existing major accident hazard sources that may impact the Site;
    i. Sites with existing COMAH and / or hazardous substance consents;
    ii. Sites permitted by the Environment Agency for landfill or mining;
    iii. Utilities; and
    iv. Other key infrastructure, such as railway lines and main roads; and
c. Sensitive environmental receptors within the study area at risk of major accidents and disaster hazards associated with the Proposed Development.

6.8.47. The baseline will build upon that already set out in this scoping exercise, using baseline information presented within other technical assessments of the ES where relevant. The outputs of this exercise will be collated and presented in a hazard identification record and provide the evidence base for the assessment.

Determining Effect Significance

6.8.48. To determine the risk of a significant effect the likelihood of an event is taken into consideration, followed by the potential consequence should the event occur. In examining the consequence, the following is considered:

a. The geographic extent of the effects of the risks. Effects beyond the boundary of the Proposed Development are more likely to be considered significant;
b. The duration of the effects from the risks. Effects which are permanent (i.e. irreversible) or long-lasting are more likely to be considered significant;
c. The severity of the effects in terms of number, degree of harm to those impacted and the response effort required. Effects which trigger the mobilisation of substantial civil emergency response effort are more likely to be considered significant;
d. The sensitivity of the identified receptors. The criteria presented in the relevant technical ES chapters shall be used where applicable. This includes ecology, heritage, socio-economics, and air quality; and
e. The effort required to restore the environment. Effects requiring substantial clean-up or restoration efforts are more likely to be considered significant.

6.8.49. For the purposes of the Proposed Development, a significant effect is considered anything that causes the loss of life or permanent injury, and / or permanent or long-lasting damage to an environmental receptor which cannot be restored through minor clean-up and restoration.

6.8.50. The IEMA Primer[192] also identifies significance, based on criteria adopted from Annex VI of the Seveso III Directive[217], a Directive which details the general classifications and labelling requirements of dangerous substances and preparations.

6.8.51. Using this reference along with a risk assessment and professional judgement, the significance threshold for the Proposed Development is set at anything which causes loss of life or permanent injury and / or long-lasting damage to an environmental receptor. It is not considered necessary, in line with the Primer, to conclude a scale of effect, therefore only 'significant' or 'not significant' shall be defined.

Enabling and Construction

6.8.52. The assessment methodology follows the process below:

a. Stage 1: Identification of risk events:
    i. Building on those identified in this scoping exercise, risk events to be assessed will be collated into a hazard identification record.
b. Stage 2: Screening of risk events:
    i. Each risk event will then be reviewed to determine whether a site-specific source-pathway-receptor linkage exists to any of the identified environmental receptors;
    ii. For each risk event with a linkage pathway, the reasonably foreseeable worst-case environmental consequence (i.e. the likely significant effect) will be identified;
    iii. The hazard identification record will record the outputs of this stage;
    iv. If there are any hazards that meet the following criteria they will be scoped out from further detailed assessment at this stage:
        i. There is no source-pathway-receptor linkage;
        ii. The receptor is not within scope, as defined through this scoping process;
        iii. The consequence does not meet the criteria of a significant environmental effect (as outlined below), and therefore the grouped risk event is not a potential major accident and / or disaster; and
        iv. The consequence and likelihood of the risk is high, to the extent that it is considered unacceptable to the Proposed Development and has therefore been designed-out or otherwise managed;
    v. Remaining grouped risks will then be subject to detailed assessment to determine whether potential significant effects on receptors are already managed and / or mitigated to an acceptable level or whether there are gaps in mitigation that need to be addressed through secondary mitigation.
c. Stage 3: Identification of mitigation:
    i. The outcome of the above activity will highlight risks for which existing primary and tertiary (embedded, regulatory and best practice) measures do not provide sufficient mitigation to reduce the risk to an acceptable level, and therefore significant effects could occur. Where this is the case, secondary (additional) measures will be required; and
    ii. In consultation with the relevant technical and design teams, secondary mitigation will be developed to manage the risk to an acceptable level, most likely below the significance criteria for a major accident and / or disaster.
d. Stage 4: Identification of residual risks and their significance:
    i. Following the consideration of all mitigation proposed, it will then be confirmed how secondary mitigation (where required) reduces the likelihood and /or significance of the reasonable worst-case impact occurring to an acceptable level; and

[217] *European Directive (2012) Seveso III Directive. Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:197:0001:0037:EN:PDF. Accessed 25 March 2026.*

ii. The hazard identification record will then record this process covering risk event, reasonable worst-case impact, embedded mitigation, secondary mitigation if required, and confirmation that the risk has been managed to an acceptable level (or reasons for not doing so clearly justified).

Completed Development

6.8.53. The methodology as outlined above for Enabling and Construction will also be applied to the assessment of effects for the Completed Development phase. Phasing of construction does not introduce any new hazards since the risks of the potential scenario occurring remains unchanged; it may affect the timing of when potential hazards could occur.

Assumptions

6.8.54. There is no recognised standard methodology for the assessment of major events. IEMA guidance[192] has been utilised alongside professional judgement to undertake and inform this scoping assessment.

6.8.55. Baseline data sources used to support this initial scoping exercise are assumed to be accurate and will be reviewed as part of the EIA.

6.8.56. This topic sheet is based on the design information available at the EIA Scoping stage and early appraisal of potential risk events which will be refined and assessed as the EIA progresses.

Cumulative Effects

6.8.57. In accordance with the Planning Inspectorate's Advice Note on Cumulative Effects[218], a long list of cumulative schemes will be identified for the Zone of Influence as set out above under 'Study Area', considering Tier 1, Tier 2 and Tier 3 developments. Consideration will then be given as to whether or not the identified developments should progress to the assessment of cumulative effects based on their distance from the Site and the type of development proposed. This will be clearly documented in the ES. Information on the development scoped into the cumulative effects assessment will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country Planning development and the Planning Inspectorate's register for DCO developments). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3.

6.8.58. The methodology for assessing cumulative major accident and disaster effects for Tier 1 and Tier 2 developments will identify nearby developments and / or COMAH sites with potential of increasing hazards between the Proposed Development and the other development. The cumulative effects assessment taking into consideration any Tier 3 development will be more qualitative as detailed information for these projects is unlikely to be available. **ES Volume 1, Chapter 2: EIA Methodology** will identify the cumulative schemes that will be considered as part of the ES.

Decarbonisation Readiness

6.8.59. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion.

6.8.60. Risk events associated with this aspect of the Proposed Development will be further considered and incorporated into the ES stage and may include factors such as additional traffic on the network and the presence of hydrogen within the Site and its associated risk of explosion. Both of these aspects are considered by the broad risk events already captured for the Proposed Development. The specifics of their source-pathway-receptor and reasonable worst case would be considered as part of the assessment as appropriate.

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[218] *Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment. Accessed 21 January 2026.*

Mitigation

6.8.61. Possible measures available to be embedded within the design of the Proposed Development, or secured via a requirement in the DCO, to reduce the potential likely significant adverse effects, are outlined in Table 60 and Table 61. These possible mitigation measures and the mechanism for securing them will be further explored and included as relevant as part of the DCO application.

6.8.62. It is expected that the risk management process will be supported with project-specific information, assessments, strategies and management plans which will be included as part of the DCO application, including (but not limited to):

a. Flood Risk Assessment;

b. Drainage Strategy;

c. Outline Construction Environmental Management Plan;

d. Outline Construction Traffic Management Plan;

e. Fire Management Strategy; and

f. Threat and Vulnerability Risk Assessment to identify and analyse the potential security related threats and mitigate these to a reasonable level.

Impacts to be Scoped Out

6.8.63. The following rationale will be used to scope out, where possible, the risk events described above from detailed assessment within the ES, once sufficient design and mitigation information becomes available as the design progresses to determine which risk events can be scoped out on the basis of embedded design and committed mitigation measures. The rationale to be used is as follows:

a. There is no source-pathway-receptor linkage;

b. The receptor is not within scope, as defined through scoping, for instance:

   i. Effects on members of the public who willfully trespass, the Proposed Development will take appropriate measures to provide a secure boundary to reduce likelihood of trespass, those ignoring these measures are not considered valid receptors and this risk has already been managed as far as reasonably practicable, so there is no further mitigation available.

   ii. Employees of the Proposed Development as they are protected by existing health and safety legislation. Therefore, these receptors have been scoped out.

c. The consequence does not meet the criteria of a significant environmental effect, and therefore the grouped risk event is not a potential major accident and/or disaster, for example:

   i. Low-consequence (regardless of likelihood) events – the IP EIA Regulations focus on major accidents and / or disasters, both of which terms imply significant harm. So, for example, likely construction-related accidents such as slips, trips and falls should not fall within the scope, and as such have been scoped out.

d. The consequence and likelihood of the risk is high, to the extent that it is considered unacceptable to the development and has therefore been designed-out or otherwise managed.

6.8.64. Where risk events are scoped out, once sufficient information is available to do so, the justification will be clearly provided within the ES chapter.

Summary

6.8.65. At present, it is considered that the vulnerability of (and risks from) the Proposed Development in relation to major accidents and disasters has the potential to be significant in EIA terms in the absence of confirmed and committed mitigation. As such the topic is proposed to be **scoped in** so that assessment can confirm that appropriate precautionary actions are taken for the Proposed

Development. At this stage, all risk events as part of this chapter are proposed to scoped in with further assessment and details of mitigation measures required.

6.9. NOISE AND VIBRATION

Introduction

6.9.1. It is considered that there is the potential for likely significant effects relating to noise and vibration and so this topic shall be '**scoped in**' to the EIA. The noise and vibration assessment will be undertaken by RF Environmental Ltd.

6.9.2. The Noise and Vibration ES Chapter will contain:

a. Details of the baseline noise survey and survey results;

b. The methodology used to assess potential noise and vibration impacts;

c. The assessment of temporary noise and vibration impacts which may occur during the enabling and construction phase;

d. The assessment of permanent noise and vibration impacts which may arise due to activities associated with the development, such as changes to road traffic in the vicinity and operation of fixed plant and equipment associated with the development; and

e. Assessment of cumulative noise and vibration impacts.

6.9.3. The ES chapter will be accompanied by:

a. A glossary of acoustic terminology;

b. Graphical and tabulated noise measurement results; and

c. Assumptions used for the assessments.

Policy, Legislation and Guidance

Policy

6.9.4. Key policy includes:

a. Overarching National Policy Statement (NPS) for Energy (EN-1)[219]

b. NPS for Natural Gas Electricity Generating Infrastructure (EN-2)[220];

c. NPS for Electricity Networks Infrastructure (EN-5)[221]

d. Noise Policy Statement for England 2010[222];

e. National Planning Policy Framework 2023[223];

f. National Planning Practice Guidance 2019[224]; and

g. Local Policy including South Bucks District Local Plan (the 'Local Plan') (March 1999; consolidated with changes in September 2007 and February 2011) and South Bucks Core Strategy (the 'Core Strategy') (February 2011).

Guidance

6.9.5. Key guidance includes:

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[219] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1), 2025. Available: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025. Accessed: 15 January 2026.*

[220] *DESNZ (2024) National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2). Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147381/NPS_EN-2.pdf. Accessed: 15 September 2025.*

[221] *DESNZ (2026) National Policy Statement for electricity networks infrastructure (EN-5), 2025. Available from: https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5-2025. Accessed: 15 January 2026.*

[222] *Department for Environment, Food and Rural Affairs (DEFRA). Noise Policy Statement for England (NPSE), 2010*

[223] *Department of Communities and Local Government. National Planning Policy Framework, 2024.*

[224] *Department for Communities and Local Government: Planning Practice Guidance – Noise. Revision date March 2014.*

a. BS 5228: 2009+A: 2014 Parts 1 and 2 Code of practice for noise and vibration control on construction and open sites[225];

b. BS 8233: 2014 Guidance on Sound Insulation and Noise Reduction for Buildings[226];

c. BS 4142: 2014 Method for Rating and Assessing Industrial and Commercial Sound[227]

d. BS 6472: 2008 Part 1 Guide to evaluation of human exposure to vibration in buildings - Vibration sources other than blasting[228];

e. BS 7445: 1991: Description and measurement of environmental noise – Guide to the acquisition of data pertinent to land use[229]

f. Calculation of Road Traffic Noise[230];

g. Design Manual for Road and Bridges[231];

h. WHO Guidelines for Community Noise[232]; and

i. WHO Guidelines for the European Region[233]

Baseline Conditions

Study Area

6.9.6. The Main Development Area within the Site is located approximately 1.5km to the west of Gerrards Cross in Buckinghamshire, directly to the north of the M40 motorway, in a semi-rural location. The immediate vicinity around the Site is predominantly a mixture of woodland and open farmland.

6.9.7. The study area used for the noise and vibration assessment will incorporate all sensitive receptors within the vicinity of the Site, which have the potential to be subject to significant effects from both the construction and operation of the Site development.

Current Baseline Conditions

6.9.8. A comprehensive baseline sound survey was completed in June 2025 to define the current ambient noise conditions in the vicinity of the Site.

6.9.9. Unattended sound monitors were installed at two locations, which were deemed to be representative of residential receptors in the vicinity of the Site, to determine the long-term variation in diurnal sound.

6.9.10. In conjunction with the unattended survey, a series of attended measurements were undertaken at locations representative of other close noise sensitive receptors, to establish the variation in sound levels within the vicinity of the Site.

6.9.11. The sound climate in the immediate vicinity of the Site, during the daytime period, was noted to comprise the following:

a. Road traffic on the M40;

b. Road traffic on the surrounding road network; and

c. Operation noise from existing landfill site.

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[225] *British Standard BS 5228 -1 2009+A1 2014 Code of practice for noise and vibration control on construction and open sites. Part 2 Noise.*
[226] *British Standard BS 8233: 2014: Guidance on Sound Insulation and Noise Reduction for Buildings.*
[227] *British Standard BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound.*
[228] *British Standard BS 6472: 2008 Part 1 Guide to evaluation of human exposure to vibration in buildings - Vibration sources other than blasting.*
[229] *BS 7445: 1991: Description and measurement of environmental noise – Guide to the acquisition of data pertinent to land use*
[230] *Department of Transport, Welsh Office document: Calculation of Road Traffic Noise (CRTN) 1988.*
[231] *HMSO publication: Design Manual for Roads and Bridges (DMRB).*
[232] *World Health Organisation. Guidelines for Community Noise. 1999.*
[233] *WHO Environmental Noise Guidelines for the European Region (2018).*

6.9.12. During the night-time period, road traffic on the M40 dominates the sound environment.

6.9.13. The noise measurements were carried out by competent personnel and in accordance with BS 7445:1991 'Description and measurement of environmental noise' and using Class 1 precision sound level meters.

6.9.14. Full details of the sound survey will be presented in the noise and vibration ES chapter and Preliminary Environmental Information Report (PEIR)

Future Baseline Conditions

6.9.15. In the absence of the Proposed Development, it is not anticipated that the future noise baseline would change significantly. Generally, any variations in ambient noise levels would be expected to arise primarily from general traffic growth or other planned infrastructure changes in proximity to the Site. No substantial changes in noise-generating activities are expected in the vicinity of the Proposed Development, that would materially alter the existing acoustic environment. The current site activities will reduce following the cessation of the aggregate processing and completion of the restoration programme, however, based on early site observations, these activities do not currently appear to influence the ambient sound environment at the closest noise sensitive receptors. Therefore, the future baseline is considered comparable to current conditions for the purposes of this assessment.

Receptors

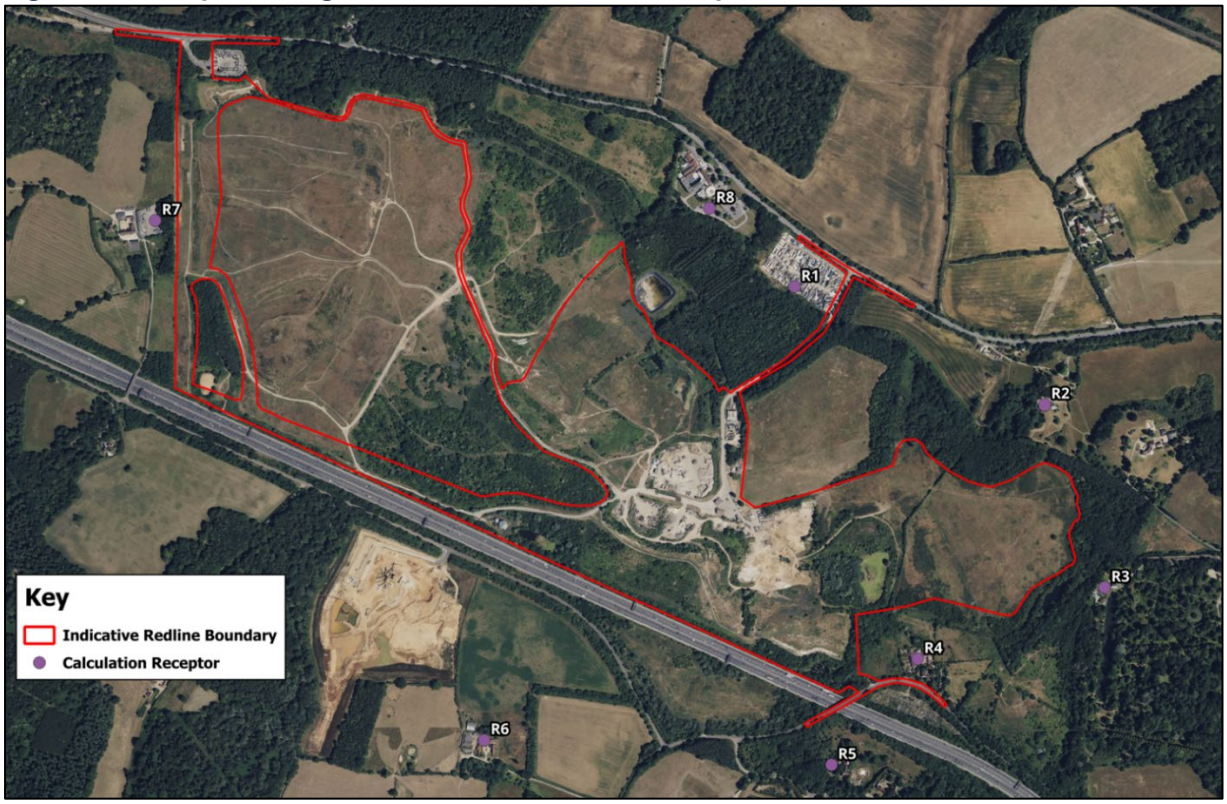
6.9.16. A noise sensitive receptor is a building, area, or facility where noise may cause disturbance, nuisance, or harm to human health or wellbeing. These receptors are considered in noise impact assessments to evaluate whether proposed projects could create unacceptable noise impacts.

6.9.17. The closest noise sensitive receptors to the main noise generating plant/activities on the Site have been identified in Figure 12 and presented in Table 62 below.

Table 62 Closest Noise Sensitive Receptors

Ref.	Address	Minimum Distance to Noise Generating Plant/Activities (m)	Receptor Type
R1	Wapseys Wood Caravan Site	350	Residential
R2	Brooklands Lodge	275	Residential
R3	Bulstrode Lodge	380	Residential
R4	South View Lodge/Moat Farm Barns/ 66 to 76 Hedgerley Lane	125	Residential
R5	Moat Farm Cottages	240	Residential
R6	Slade Farmhouse	450	Residential
R7	Hyde Farm	1100	Residential
R8	Crowne Plaza Hotel	950	Hotel

Figure 12 Map Showing Closest Noise Sensitive Receptors to Site



Establishing Receptor Sensitivity

6.9.18. For the purpose of the noise and vibration assessment, residential receptors are classed as being of high sensitivity, along with hotels, schools, hospitals and buildings in religious use.

6.9.19. Any commercial receptors would be classified as medium sensitivity.

Assessment of Effects

6.9.20. The ES chapter will assess:

a. The potential for noise and vibration impacts throughout the enabling and construction works and as a result of the completed development and resultant noise and vibration effects;

b. The likely significant noise and vibration effects;

c. Any required mitigation or monitoring to address any likely significant adverse noise and vibration effects; and

d. The potential for cumulative effects in relation to noise and vibration with other agreed upon schemes in the surrounding area.

Determining Effect Significance

6.9.21. Significance criteria will be based on a defined scale for each subject area. Broadly, the significance of effect is determined based upon of a number of parameters, including:

a. The magnitude of beneficial and adverse impacts;

b. The scale of the impact at national, regional and local levels;

c. The duration of impact; and

d. The sensitivity of the receptor and numbers affected.

6.9.22. The key terminology used to describe the scale of effects is as follows:

a. Major;

b. Moderate;

c. Minor: and

d. No Significance.

6.9.23. The nature of the effects may be either adverse (negative) or beneficial (positive).

6.9.24. The basis for determining effect significance will take into account the sensitivity of resource / receptor and magnitude of impact. A general classification of effects matrix, as displayed below in Table 63, will be used to assess the significance of effects. Typically, negligible and minor effects are considered 'not significant', and moderate and major effects are considered 'significant'.

Table 63 Determination of Significant of Effects Matrix

Receptor Sensitivity	Magnitude of Impact			
	High	Medium	Low	Very Low
High Sensitivity	Major	Moderate	Minor	No Significance
Medium Sensitivity	Moderate	Moderate	Minor	No Significance
Low Sensitivity	Minor	Minor	No Significance	No Significance

Enabling and Construction

6.9.25. It is anticipated that the construction phase will occur during typical daytime working hours (Monday to Friday: 08:00 to 18:00hrs and Saturday 08:00 to 13:00hrs on Saturday with no works on Sundays, bank holidays and national holidays) only. Owing to the high existing ambient noise levels during those hours, the risk of significant effects is anticipated to be restricted to only the closest few residential receptors. However, to ensure that a robust assessment is undertaken, all receptors identified in Table 62 above will be included in the construction noise assessment.

6.9.26. Should significant effects be identified at the closest noise sensitive receptors identified, and if these cannot be reduced to acceptable (not significant) levels through the implementation of mitigation, an assessment will also be undertaken at receptors further away to understand the geographic extent of the effect. This will be determined following assessment and set out in the Noise and Vibration chapter of the ES.

Completed Development

6.9.27. Owing to the requirement for the noise-generating plant to operate during the most sensitive periods of both the daytime and night-time periods, the risk of significant effects is anticipated to be higher at more noise sensitive receptors than identified for the construction phase and therefore all identified receptors will be included in the operational assessment.

Assessment Methodology

Establishing the Baseline

6.9.28. Establishing the baseline noise environment involves systematically measuring and documenting the existing ambient sound levels in the project area prior to construction or operation. This includes the use of calibrated Class 1 sound level meters to record noise levels at representative locations, capturing variations during different times of the day to reflect typical conditions i.e. during daytime (07:00 to 23:00hrs) and night-time (23:00 to 07:00hrs) for a minimum of 5 days, inclusive of a weekend.

6.9.29. Key parameters such as equivalent continuous sound level ($L_{Aeq,T}$), maximum ($L_{Amax,F}$), and background ($L_{A90,T}$) are recorded, along with environmental conditions that may influence measurements.

6.9.30. The baseline data provides a reference against which potential project related noise impacts can be assessed and are essential for developing appropriate mitigation measures and ensuring compliance with adopted noise criteria and regulatory noise standards.

Enabling and Construction

6.9.31. The assessment will be undertaken in accordance with relevant national policy, standards and good practice guidance, and will identify the significance of potential effects on sensitive receptors.

6.9.32. The magnitude of construction noise impact will be determined by reference to:

a. The predicted construction noise level at sensitive receptors (LAeq,T);

b. The change in noise level compared to the baseline (LAeq,T);

c. The duration and temporal characteristics of the exposure; and

d. The sensitivity of affected receptors (e.g. residential, educational, healthcare).

6.9.33. Basic information and procedures for noise and vibration control and assessment on construction sites is contained in Parts 1 and 2 of BS 5228:2009+A1 2014 'Code of practice for noise and vibration control on construction and open sites'. These documents also contain guidance on mitigation options available. These include engineering measures, restricted hours of working and the setting of boundary or community noise limits.

6.9.34. Subjective response to enabling and construction noise is moderated by the limited duration of any receptor or community's exposure to such noise. Higher levels of construction noise are often therefore considered to be tolerable, where necessary, in comparison to acceptable or desirable levels for exposure to everyday ambient noise.

6.9.35. BS5228 Part 1 suggests that a method to determine the potential significance of construction noise levels is to consider the change in the ambient noise level with the construction noise. The most common method for this approach is the 'ABC method.'

6.9.36. The ABC criterion table presented in BS5228 for determining the appropriate construction noise thresholds, is reproduced below in Table 64.

Table 64 Example Threshold of Potential Significant Effect at Dwellings (BS5228: Annex E)

Assessment Category and threshold value period (L_{Aeq})	Threshold value, in decibels - dB(A)		
	Category A (A)	Category B (B)	Category C (C)
Daytime	65	70	75

NOTE 1 A significant effect has been deemed to occur if the total LAeq noise level, including construction, exceeds the threshold for the Category appropriate to the ambient level.
NOTE 2 If the ambient noise level exceeds the threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a significant effect is deemed to occur if the total LAeq noise level for the period increases by more than 3dB due to construction
NOTE 3 Applied to residential receptors
A) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are less than these values
B) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are same as category A values
C) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are higher than category A values.

6.9.37. An exceedance of the ABC noise impact threshold indicates an adverse impact with the potential to cause a significant effect.

6.9.38. Where this occurs, consideration will then be given to other project specific factors, such as the number of receptors affected and the duration and character of the impact, to determine if there is a significant effect.

6.9.39. The assessment will comprise the following key elements:

a. Baseline Survey: The noise monitoring at representative sensitive receptor locations will be used to establish existing daytime noise conditions;

b. Predictive Modelling: Noise from construction activities and operational phases will be predicted using industry-standard acoustic modelling software (SoundPLAN) and/or recognised sound propagation calculations, incorporating plant/equipment sound power data from BS 5228 or manufacturer specifications; and

c. Effects are determined by comparing predicted levels against the adopted thresholds, allowing identification of significant impacts and need for mitigation.

6.9.40. The following aspects of the construction process will be key elements of potential noise impacts:

a. The type, quantity and specification of plant and equipment to be used;

b. The phasing and duration of construction activities (e.g. earthworks, piling);

c. The use of inherently noisy activities such as impact piling, if required; and

d. The location of construction compounds and haul routes relative to sensitive receptors.

6.9.41. The assessment will be based on the following assumptions:

a. Plant and equipment will conform to manufacturer's emission data or typical BS 5228 values;

b. Construction activities will be undertaken in accordance with standard good practice and embedded mitigation (e.g. use of silencers, barriers, restricted working hours); and

c. Predictions will assume a conservative worst-case scenario, with multiple items of plant operating concurrently.

6.9.42. Where the predicted receptor construction noise levels exceed the adopted ABC noise threshold adopted for each receptor, this will be an indication of the potential to cause significant effects.

6.9.43. The conclusion of the existence of significant effects will then be determined based on the number of properties affected and the expected duration of the works.

Traffic Noise

6.9.44. Additional traffic associated with the construction phase will be assessed separately, following the methodology set out below for operational road traffic.

Vibration Assessment

6.9.45. A risk assessment of construction-related vibration will be carried out with reference to BS5228:2.

6.9.46. The methodology for the vibration assessment involves identifying all significant construction-related vibration sources, such as piling, excavation, and heavy machinery and assessing against the risk thresholds presented in Table 65 below.

Table 65 Demolition and Construction Vibration Significance Criteria

Vibration Level, mms-1 PPV	Magnitude of Impact
>1.0	High
0.30 - 1.0	Medium
0.15 - 0.30	Low
<0.15	Negligible
Notes: The above vibration limits relate to maximum PPV ground borne vibration occurring in any one of three mutually perpendicular axes (one of which may be vertical).	

Completed Development

Plant Noise Assessment

6.9.47. The most significant risk of noise impact from the Proposed Development, on surrounding noise sensitive receptors, will be from the operation of the external mechanical plant. This includes the plant associated with the Data Centre Campus and the plant included in the proposed Energy Centre.

6.9.48. The distance to the closest noise sensitive receptor is less than 200m from the edge of the Site. It is anticipated that noise mitigation measures will be required to reduce the impact of external plant on the surrounding receptors.

6.9.49. A detailed noise impact assessment will be required, to assess the risk of noise impact and derive a scheme of noise mitigation to ensure significant effects are reduced or, where possible, avoided.

6.9.50. A computer noise model of the Proposed Development will be constructed using SoundPLAN Version 9.1, to calculate the specific plant noise levels at the closest sensitive receptors. The computer modelling software will implement the sound propagation calculations specified in ISO 9613-2234.

6.9.51. The key plant items and other noise sources of the Proposed Development, which will be subject to the assessment are:

a. Chillers;
b. Emergency Back-up Generators;
c. Ancillary plant; and
d. Energy Centre plant, which may include gas turbine exhaust stacks, air intake fans, exhaust fans and coolers.

6.9.52. The assessment will include:

a. Cumulative impact from all noise generating plant for both the data centres and the Energy Centre, in a typical operating scenario during both the daytime and night-time periods; and
b. An assessment of the daytime testing of the emergency back-up generators, alongside the operational plant from the data centres and Energy Centre.

6.9.53. The sound power levels of the expected Data Centre Campus and Energy Centre plant items will be based on manufacturer's data from 'typical' plant used for operation, as the final selection may not be available at this stage.

6.9.54. These values will be used as input data for the detailed computer noise model and assessment, but it is acknowledged that these may be subject to change as final selections are made.

6.9.55. Once the specific source noise levels have been established at the closest receptor locations, a detailed impact assessment will be undertaken, in accordance with British Standard BS4142: 2014+A1 2019.

6.9.56. British Standard (BS) 4142: 2014+A1 2019 'Methods for rating and assessing industrial and commercial sound' contains guidance on the rating and assessing of sound of an industrial and/or commercial nature. This standard is applicable to the determination of the following levels at outdoor locations:

a. Rating levels for sources of sound of an industrial and / or commercial nature; and
b. Ambient, background and residual sound levels.

6.9.57. The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs.

6.9.58. According to the guidance, 'Typically, the greater the difference between rating level and background noise level, the greater the magnitude of the impact:

a. A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context;
b. A difference of around +5 dB is likely to be an indication of an adverse impact depending on context; and

[234] *International Standard ISO 9613-2: 2024: Acoustics – Attenuation of sound during propagation outdoors. Part 2: General method of calculation.*

c. The lower the rating level is relative to the measured background sound level, the less likely it is that the specific source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

6.9.59. Certain acoustic features can increase the significance of the impact of a specific sound source. These features include tonality and impulsivity, as well as additional characteristics and intermittency of the sound.

6.9.60. Where appropriate, a decibel rating penalty correction for sound based on a subjective assessment of its characteristics should be established.

6.9.61. A rating penalty will be added to the specific level if the noise source contains a tone, impulse or other characteristic which is readily distinctive against the residual acoustic environment.

Criteria for the Plant Noise Assessment

6.9.62. In consideration of the above guidance, the noise impact assessment of the Data Centre Campus and Energy Centre operational plant noise emissions is to be undertaken in accordance with BS 4142:2014+A1:2019, to achieve a rating level less than 5dB above the adopted background sound level.

6.9.63. Due to the short-term a-typical sound events of the emergency generator plant, the criteria adopted for the assessment of emergency plant, when assessed in accordance with BS 4142:2014+A1:2019 is for a rating level to be less than 10dB dB above the adopted background sound level.

6.9.64. These adopted criteria, when considered in the context of the impact significance set out in Table 66 below, will ensure that any impact would be minor or not significant.

Table 66 Plant Noise Significance Criteria

Excess Over Background (dB)	Magnitude of Impact
+10 or more	High
+5 to +10	Medium
0 to +5	Low
0 or negative	Negligible

Operational and Construction Road Traffic Noise

6.9.65. Operational (long term) and construction (short term) traffic noise levels will be calculated in accordance with the principles set out in the Calculation of Road Traffic Noise (CTRN) (1988) and the HSMO publication: Design Manual for Road and Bridges[235].

6.9.66. According to this latter document the evaluation of road traffic noise impacts due to new or altered highways should be based on the calculated changes in $L_{A10,18hr}$ noise levels outside residential dwellings.

6.9.67. The criteria for the assessment of traffic noise changes arising from the Proposed Development have been taken from Table 3.2 of DMRB and are provided in Table 67 below.

Table 67 Road Traffic Noise Significance Change

Noise Change Band	Magnitude of Impact (Long Term)	Magnitude of Impact (Short Term)
0 dB(A)	No change	No Change
0.1 – 0.9 dB(A)	Negligible	Negligible

[235] *Design Manual for Roads and Bridges – LA111 Noise and Vibration, Highways England (2021)*

Noise Change Band	Magnitude of Impact (Long Term)	Magnitude of Impact (Short Term)
1 – 2.9 dB(A)	Low	
3 – 4.9 dB(A)	Medium	Low
5 – >9.9 dB(A)	High	Medium
10 dB(A) or more	High	High

Decarbonisation Readiness

6.9.68. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion.

6.9.69. Considerations for Hydrogen Conversion in relation to noise and vibration relate to any additional plant which may be required for hydrogen combustion. The noise modelling of the operational plant will follow the methodology set out above.

Cumulative Effects

6.9.70. In accordance with the Planning Inspectorate's Advice Note on Cumulative Effects[236], a long list of cumulative schemes will be identified for the Zone of Influence as set out above under 'Study Area', considering Tier 1, Tier 2 and Tier 3 developments. Consideration will then be given as to whether or not the identified developments should progress to the assessment of cumulative effects based on their distance from the Site and the type of development proposed. This will be clearly documented in the ES. Information on the development scoped into the cumulative effects assessment will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country Planning development and the Planning Inspectorate's register for DCO developments). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3.

6.9.71. The assessment will consider the combined effects of the Proposed Development and other relevant Tier 1 and Tier 2 schemes on sensitive receptors, using the quantitative methods proposed for the development assessment for Tier 1 and Tier 2, with effects evaluated against relevant standards and guidance and potential mitigation identified where necessary.

6.9.72. When evaluating cumulative effects, it is important to consider all potential developments, including those categorised as Tier 3. However, detailed information for Tier 3 projects is often not available at this stage. As a result, the assessment will rely more on qualitative analysis, using professional judgment and any available historical data, rather than precise quantitative metrics. This approach ensures that potential impacts are still identified and considered, even when specific project details are uncertain.

Mitigation

6.9.73. Mitigation measures expected to reduce the potential likely significant effects will be focussed on reducing the external plant noise at source, as far as reasonably practicable. This will include, but will not be limited to, the following options:

a. Selection of plant models with low sound outputs;
b. Acoustic attenuation packs for chillers;
c. Use of low noise operating modes;
d. Screening of plant using barriers and acoustic louvres; and
e. Orientation of buildings to provide additional screening.

6.9.74. Continued assessment of the noise sources and refinement of the mitigation scheme will be ongoing as the Proposed Development progresses to ensure compliance with the adopted noise thresholds.

[236] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment.*

Impacts to be Scoped Out

6.9.75. During the operational phase, the primary potential sources of vibration at a data centre are mechanical and electrical equipment, including HVAC systems, chillers, and backup generators.

6.9.76. BS 5228-2:2009+A1:2014 provides indicative vibration velocity thresholds for human perception. According to Annex D of the standard, vibration below approximately 0.3 mm/s (peak particle velocity, PPV) are generally not perceptible to building occupants under normal conditions. While BS 5228-2 primarily addresses construction vibration, these values provide a useful benchmark for assessing operational vibration.

6.9.77. BS 6472-1:2008+A1:2014 offers guidance on the assessment of human exposure to vibration in buildings from ground-borne sources and includes recommended vibration dose values (VDVs) for continuous and intermittent sources. Operational mechanical plant in data centres and energy centres is typically designed and installed to minimise vibration transmission, meaning it is unlikely to exceed levels considered perceptible under BS 6472-1 guidance.

6.9.78. Given that the nearest sensitive receptors are located beyond the immediate building envelope at distance in excess of 100m, operational vibration from the Data Centre Campus and Energy Centre is expected to be below perceptible thresholds for human receptors.

6.9.79. As such, the risk of significant effects from vibration during the operational phase is considered to be negligible and a detailed vibration assessment for the operational phase is not considered necessary and will be scoped out of the final assessment.

Summary

6.9.80. The following has been scoped into the Noise and Vibration ES chapter:

a. Noise and Vibration effects during enabling and construction;

b. Noise effects once the Proposed Development is operational; and

c. Cumulative effects.

6.9.81. Assessment of Vibration from mechanical and electrical plant once the Proposed Development is complete and operational has been Scoped Out of the Noise and Vibration ES chapter.

6.10. SOCIO-ECONOMICS

Introduction

6.10.1. It is considered that there is the potential for likely significant effects relating to socio-economics and so this topic shall be '**scoped in**' to the EIA. The socio-economics assessment will be undertaken by Montagu Evans.

6.10.2. This section of the Scoping Report identifies potential impacts with regard to socioeconomic impacts that may occur during the construction and operation of the Proposed Development and outlines whether these will be addressed further in the Environmental Statement (ES).

Policy, Legislation and Guidance

6.10.3. Relevant planning policy and guidance to socio-economics includes[237]:

a. National Planning Policy Framework (2025);
b. National Data Strategy (2020);
c. UK Modern Industrial Strategy (2025);
d. UK AI Growth Zones (2025);
e. UK Compute Roadmap (2025);
f. Overarching National Policy Statement (NPS) for Energy (EN-1)[238]
g. NPS for Natural Gas Electricity Generating Infrastructure (EN-2)[239];
h. NPS for Renewable Energy Infrastructure (EN-3)[240];
i. NPS for Electricity Networks Infrastructure (EN-5)[241]; =
j. South Bucks Development Plan (1999);
k. South Bucks Core Strategy (2011);
l. Buckinghamshire Strategic Economic Plan (2016); and
m. Buckinghamshire Local Skills Report (2022).

Baseline Conditions

Study Area

6.10.4. The Site is located within the ward of Gerrards Cross, which is located within the Buckinghamshire Council unitary authority district. The Site is also in very close proximity to Beaconsfield. Therefore, baseline conditions will be assessed at spatial levels including the Site (Gerrards Cross ward) and local area (Beaconsfield ward), and where relevant within Buckinghamshire unitary authority district and will be compared against the South East, and national averages.

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[237] *Buckinghamshire Council came into effect on 1 April 2020, bringing together the former Buckinghamshire County Council and former district councils of Aylesbury Vale, Chiltern, South Bucks and Wycombe. At the time of writing this EIA Scoping Report, the new Buckinghamshire-wide Local Plan is currently being prepared with Regulation 18 consultation on the draft plan scheduled for September/October 2025.*

[238] *DESNZ (2026) Overarching National Policy Statement for Energy (EN-1). Available: https://assets.publishing.service.gov.uk/media/695d1015f41883f4e50ed9ab/overarching-national-policy-statement-for-energy-en-1-web-accessible.pdf Accessed: 15 January 2026.*

[239] *DESNZ (2024) National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2). Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147381/NPS_EN-2.pdf. Accessed: 15 September 2025.*

[240] *DESNZ (2026) National Policy Statement for Renewable Energy Infrastructure (EN-3) https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3-2025. Accessed: 15 January 2026.*

[241] *DESNZ (2026) National Policy Statement for Electricity Networks Infrastructure (EN-5). Available: https://assets.publishing.service.gov.uk/media/695d12e1b5c46330350ed9a1/national-policy-statement-for-electricity-networks-infrastructure-en-5-web-accessible.pdf. Accessed: 15 January 2026.*

6.10.5. The potential temporary and permanent economic and employment impacts arising from the Proposed Development will be considered relative to a principal economic area, defined based on consideration of the Local Planning Authority boundary and drawing on demographic and economic data / indicators for the combined statistical area that aligns with the radius deemed most appropriate based on professional judgement. It is important to note that the socio-economic impacts of the construction phase are likely to be spread across a wider region, on the basis that a wide range of technical specialisms and a broad supply chain will be required to deliver the Proposed Development.

6.10.6. The study area for land use receptors (residential properties, local businesses, community facilities, open space, recreational assets and development land) reflects receptors that could be directly or indirectly affected by the Proposed Development. The receptors that could be impacted are therefore those within the Site, including the waste landfill site, and those within 500m of the Site boundary, noting that a 2km radius is used for community facilities to fully consider the effect on community facilities. This is because community facilities are likely to be accessed by residents from a wider catchment, especially in rural areas, as provision tends to be sparse. The Zone of Influence (ZoI) to assess cumulative effects of the Proposed Development will be within a 2km radius of the Site.

Current Baseline Conditions

Demographic Profile and Deprivation

6.10.7. The population of the Gerrards Cross ward and Beaconsfield ward was 9,145 and 11,171 respectively in 2021 and the population of Buckinghamshire was approximately 553,079[242]. Table 68 below compares the age profiles of both areas against the South East and national (England) averages.

Table 68 Age Profile – 2021

	Gerrards Cross	Beaconsfield	Buckinghamshire	South East	England
Total Population	9,145	11,171	553,079	9,278,065	56,490,047
Aged 0 – 15	19.9%	20.5%	19.8%	18.6%	18.6%
Aged 16 – 64	58.8%	58.5%	61.4%	62.0%	63.0%
Aged Over 65	21.4%	21.0%	18.8%	19.4%	18.4%

Source: ONS, (2021), Census 2021

6.10.8. Table 68 demonstrates that the proportion of residents in Gerrards Cross and Buckinghamshire aged 0-15 are higher than the regional and national averages. Conversely, the working age population (defined as aged 16-64) is lower in Gerrards Cross and Buckinghamshire than the regional and national averages. In addition, over a fifth of residents in Gerrards Cross are elderly (aged 65 and above).

6.10.9. The most recent data for deprivation is from 2019, prior to the formation of Buckinghamshire District in 2020. Data for South Bucks (the former local authority boundary in which the Site is located) is ranked the 292nd most deprived local authority out of England's 317 local authority areas (where 1st is the most deprived). Chiltern, the neighbouring local authority boundary to the north of the Site, was ranked the 315th most deprived local authority. Neither local authority had any Lower Layer Super Output Areas (LSOAs) ranking within the top 10% most deprived LSOAs in England, indicating that the local area is comparatively less deprived to other areas[243].

Local Economy

6.10.10. Data from the ONS Annual Population Survey is not available at electoral ward level. Therefore, data for Buckinghamshire has been used for the local economy indicators which has used ONS Annual Population Survey data. The labour market in Buckinghamshire appears to be stronger than the wider geographical areas, as summarised in Table 69 below.

[242] *Office for National Statistics (ONS), (2021), Census 2021.*
[243] *Ministry of Housing, Communities & Local Government, (2019), English Indices of Deprivation 2019.*

Table 69 Key Labour Market Indicators

	Gerrards Cross	Beaconsfield	Buckinghamshire	South East	England
Economic Activity Rate Aged 16 – 64	-		85.3%	81.1%	78.8%
Unemployment Rate Aged 16 – 64	-		3.7%	3.3%	4.0%
Economically Inactive (Want a Job) (All Years)	-		21.6%	21.3%	19.4%
Claimant Count (as a proportion of residents aged 16 -64)	2.1%	2.4%	3.2%	3.1%	4.1%

Source: ONS, (2025), Annual Population Survey; Claimant Count.

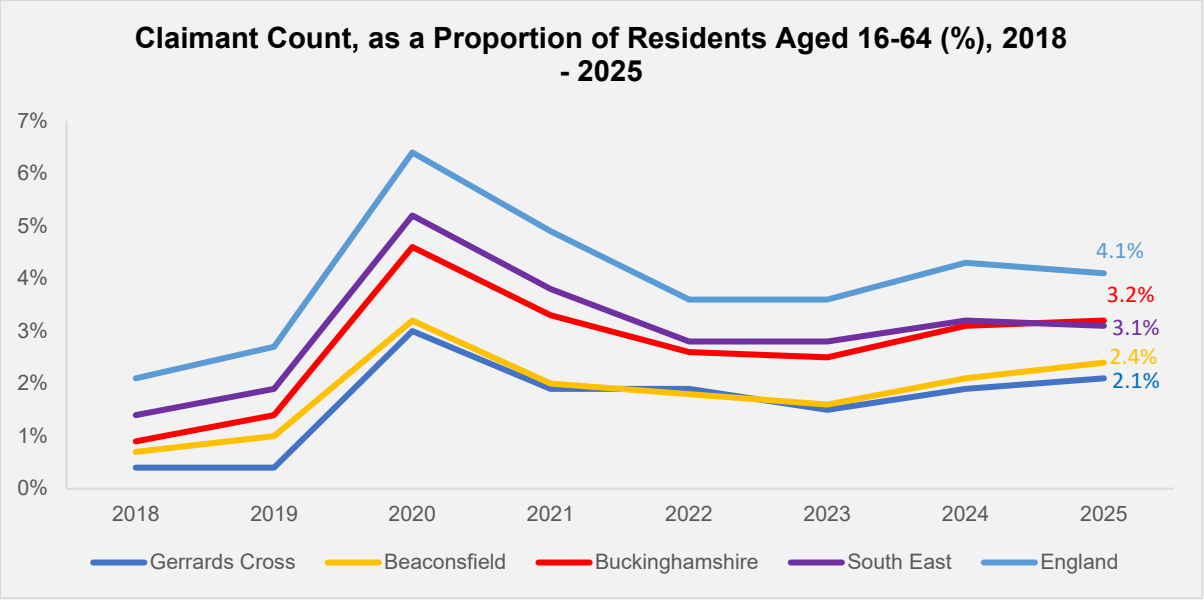
6.10.11. The economic activity rate for residents aged 16-64 in Buckinghamshire (85.3%) is higher than the South East (81.1%) and national averages (78.8%). The unemployment rate in Buckinghamshire is also lower than the national average and only slightly higher than the South East. Additionally, a relatively high percentage of those who are economically inactive would also like to work (approximately 21.6% in Buckinghamshire – a total of 10,500 people) but are not actively seeking work for a variety of reasons. The total number of people within Buckinghamshire either unemployed and actively seeking work, or economically inactive but would like to work is 21,000. Though this accounts for a smaller proportion of the working age population in the South East, it remains a significant number in absolute terms. Based on the average Gross Value Added (GVA) per filled job for Buckinghamshire (£65,442)244, this equates to £1.3bn per annum in lost economic output.

6.10.12. Claimant count data is available at electoral ward level. Figure 13 highlights that the proportion of residents aged 16-64 who claimed unemployment related benefits in Gerrards Cross and Beaconsfield have been consistently lower than the wider geographies over the past six years, including pre-Covid-19 pandemic[245]. The claimant count for Buckinghamshire as a whole has also been consistently lower than the national average as well as the South East average, with the exception of September 2025. The claimant count for Gerrards Cross, Beaconsfield and Buckinghamshire peaked during the Covid-19 pandemic and has been declining since portraying signs of economic recovery, however since 2023, the claimant count has started to slightly increase again.

[244] *ONS, (2025), Subregional Productivity: Labour Productivity Indices by Local Authority District – GVA per filled Job 2002 – 2023.*

[245] *Office for National Statistics, (2024), Claimant Count, June 2025.*

Figure 13 Claimant Count 2018 – 2025



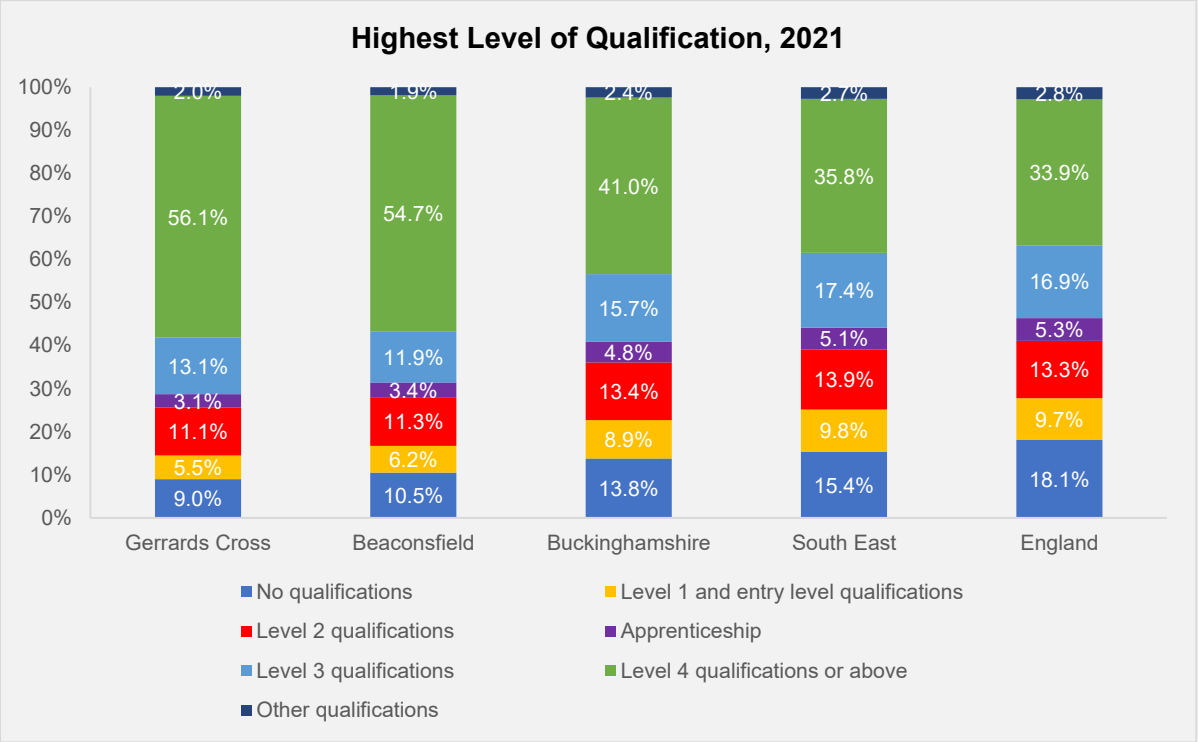
Source: ONS, (2025), Claimant Count.

Labour Market

6.10.13. The availability of a skilled local workforce is a key consideration for Energy Centre and Data Centre operators when selecting a location to invest into. Figure 14 below shows that Gerrards Cross, Beaconsfield and Buckinghamshire residents have a higher level of qualification on average than the South East and England as a whole, with 56.1%, 54.7% and 41.0% of residents respectively having a degree level qualification (Level 4 or above) or higher. This is higher than the South East (35.8%) and national average (33.9%). Additionally, Gerrards Cross, Beaconsfield and Buckinghamshire have a lower proportion of residents without any qualifications compared to the South East and national average[246].

[246] *Office for National Statistics (ONS), (2021), Census 2021.*

Figure 14 Highest Level of Qualification, 2021

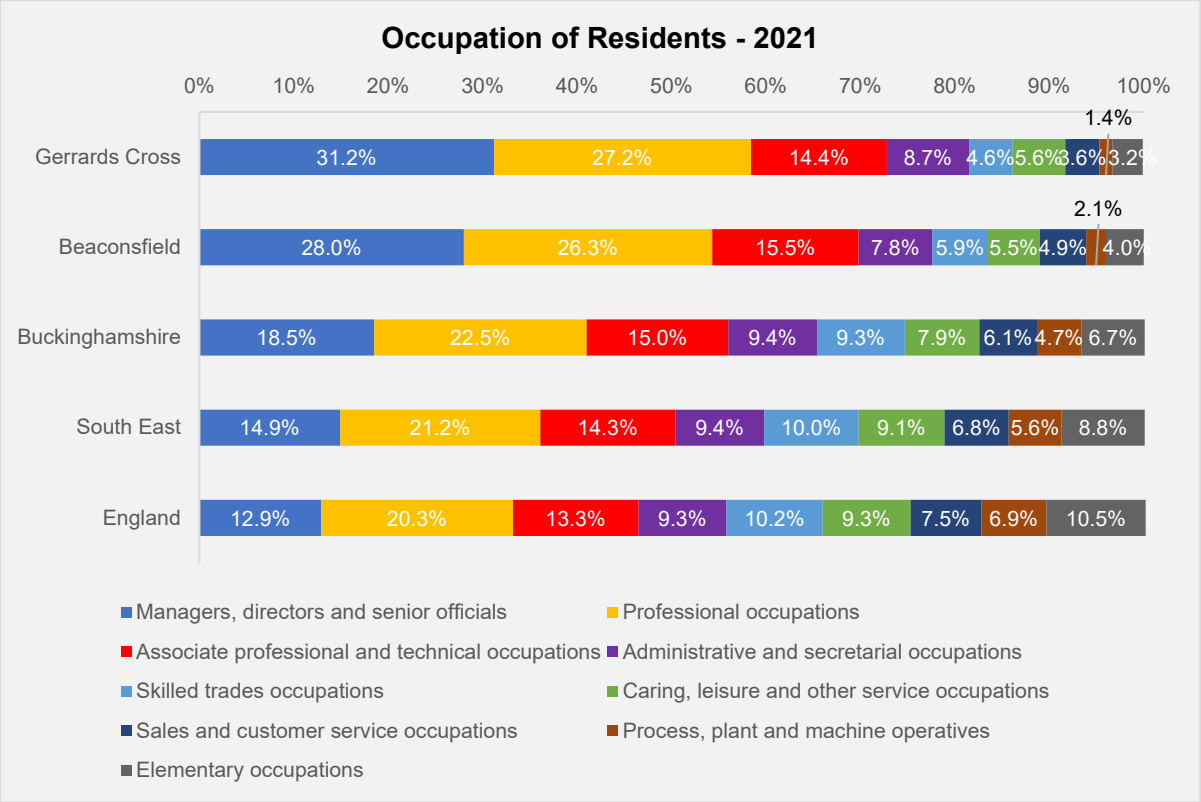


Source: ONS, (2021), Census 2021.

6.10.14. The prevalence of higher skilled residents in Gerrards Cross, Beaconsfield and Buckinghamshire is matched by residents also being employed in higher skilled occupations – as shown in Figure 15 below. In comparison to the South East and national averages, Gerrards Cross has double the number of residents working as 'Managers, Directors and Senior Officials'. This is also the case for Beaconsfield in relation to the national average. Nearly three quarters (72.8% and 69.8%) of residents in Gerrards Cross and Beaconsfield respectively and 56.0% of residents in Buckinghamshire work in 'Managers, Directors and Senior Officials', 'Associated Professional and Technical Occupations' and 'Professionals' occupations. This is higher than the South East (50.4%) and national (46.5%) averages[247]. By contrast, Gerrards Cross, Beaconsfield and Buckinghamshire also have a lower proportion of residents working in lower skilled occupations than the wider geographies.

[247] *Office for National Statistics (ONS), (2021), Census 2021.*

Figure 15 SOC Groups within the Local Resident Workforce, 2021

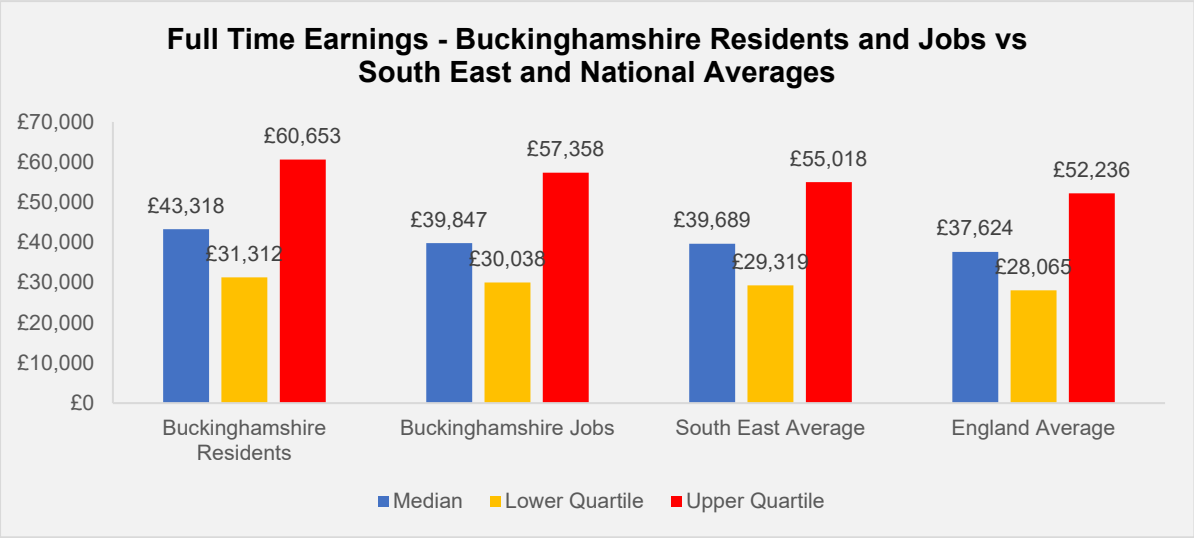


Source: ONS, (2021), Census 2021.

6.10.15. The skilled local workforce translates into above average earnings – both for local residents and local jobs. Median pay for local residents (i.e. those who live in Buckinghamshire and are employed full time) is £43k per annum – which is slightly higher than the median £40k per annum rate paid for jobs based within the area[248]. Both of these rates are slightly higher than the South East and national averages. At the Upper Quartile (i.e. top 25% highest paid workers / jobs), local residents earn more (£60k) than is paid by local jobs at this level (£57k) – owing to the presence of commuters into higher paid jobs in Central London. Nevertheless, local jobs at the upper quartile still remain slightly higher than the South East and national averages.

[248] *ONS, (2024), Annual Survey of Hours and Earnings 2024*

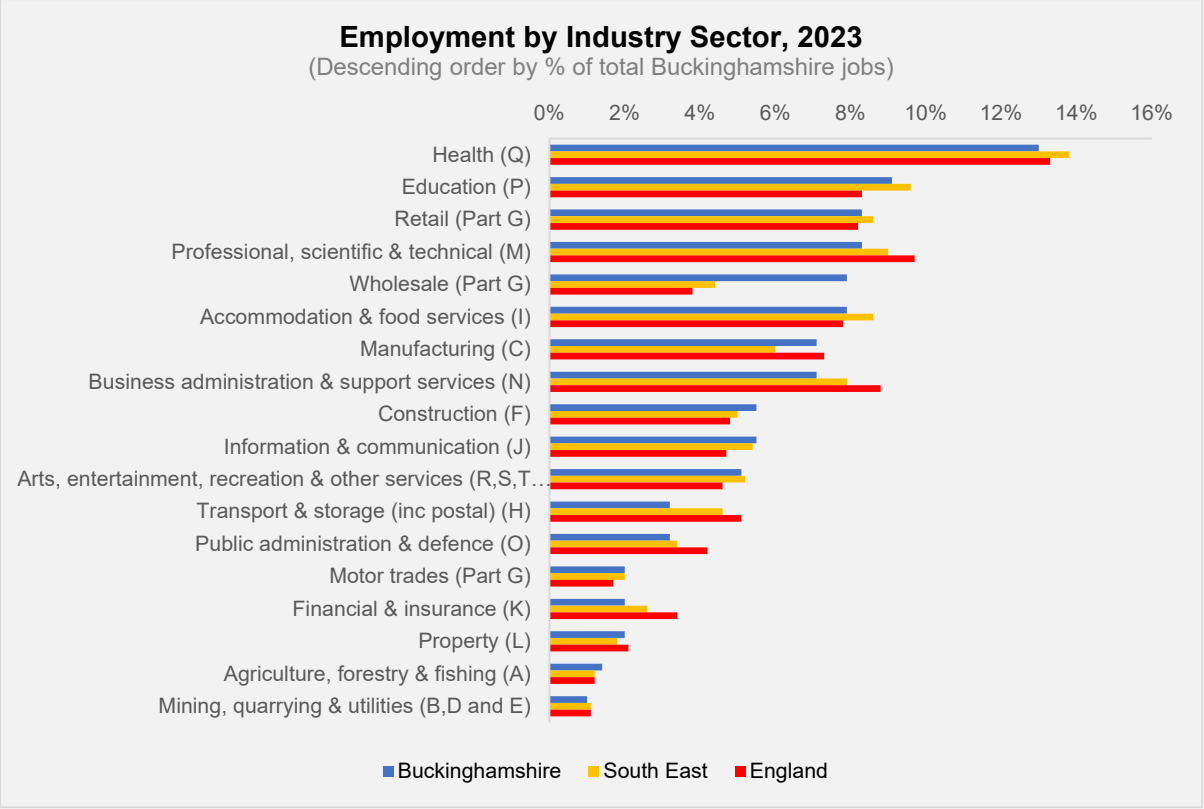
Figure 16 All Sectors – Full Time Earnings in Buckinghamshire vs South East and England, 2024



Source: ONS, (2024), Annual Survey of Hours and Earnings 2024.

6.10.16. The largest sector of employment in Buckinghamshire is Health, accounting for 13% of all jobs in the area, however this is proportionally lower than the South East and national averages. Compared with regional and national averages, Buckinghamshire has relatively high levels of employment in Retail, Wholesale, Manufacturing and Construction, as well as Information & Communications (which Energy Centre and Data Centre activities fall within). Figure 17 summarises the sectors providing the largest number of jobs in Buckinghamshire, compared against the industry profiles for South East and national average as a whole.

Figure 17 Employment by Sector – ordered by Total Employment in Buckinghamshire

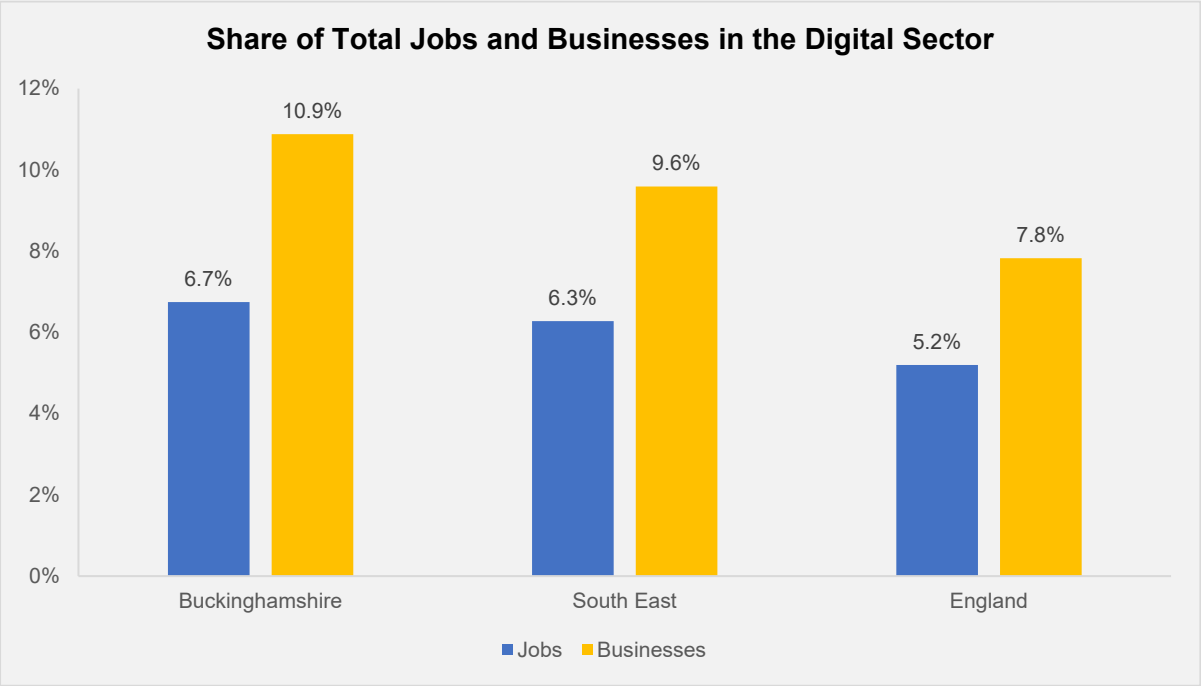


Source: ONS, (2024), Business Register and Employment Survey.

Digital Economy

6.10.17. Figure 18 shows the concentration of Digital Sector jobs and businesses within Buckinghamshire. The Digital Economy has been defined using the Department for Culture Media & Sport's (DCMS) definition for what constitutes the Digital Sector based on the Standard Industrial Classification (2007) codes[249]. In total, 10.9% of businesses within Buckinghamshire are in the Digital Sector, accounting for 6.7% of total jobs[250]. The proportion of businesses and jobs in the Digital Sector in Buckinghamshire is above the South East and national averages.

Figure 18 Businesses and Jobs in the Digital Sector

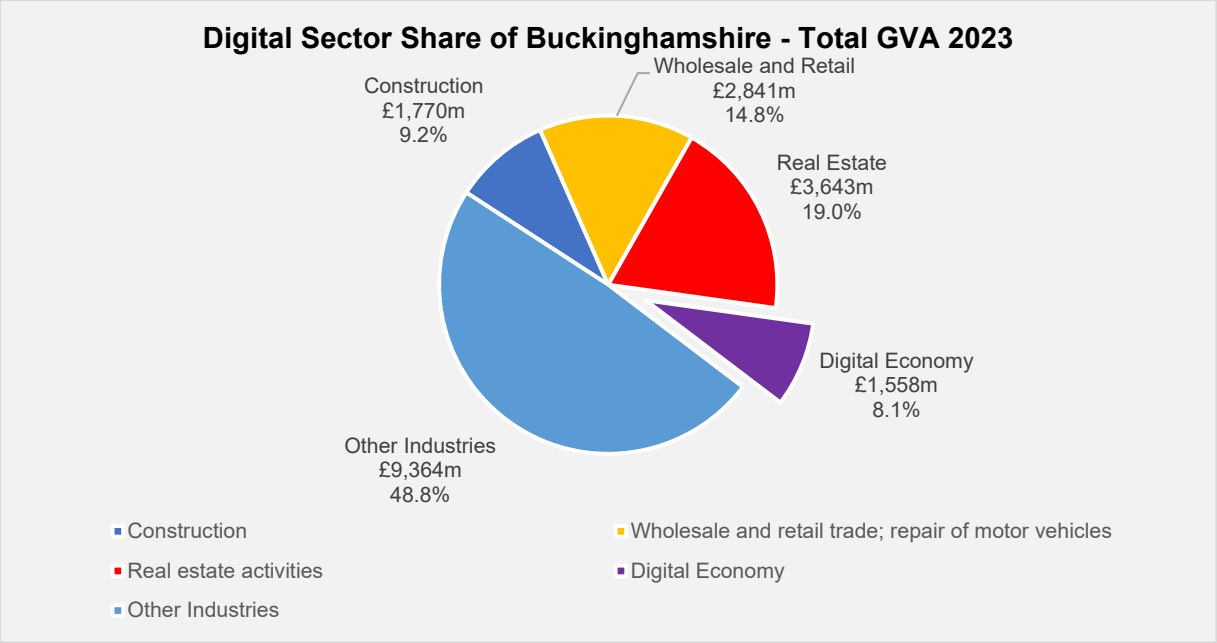


Source: ONS, (2024), Business Register and Employment Survey; UK Business Counts.

6.10.18. The Digital Sector accounts for an estimated 8.1% of total GVA in Buckinghamshire – contributing an estimated £1.55bn per annum to the local economy. On average, Digital Sector workers contribute an estimated £91,600 per annum each to the local economy – around 31% higher than the average for all sectors (£69,900).

[249] *DCMS, (2016), Digital Sector Economic Estimates. January 2016.*
[250] *ONS, (2024), Business Register and Employment Survey; UK Business Counts.*

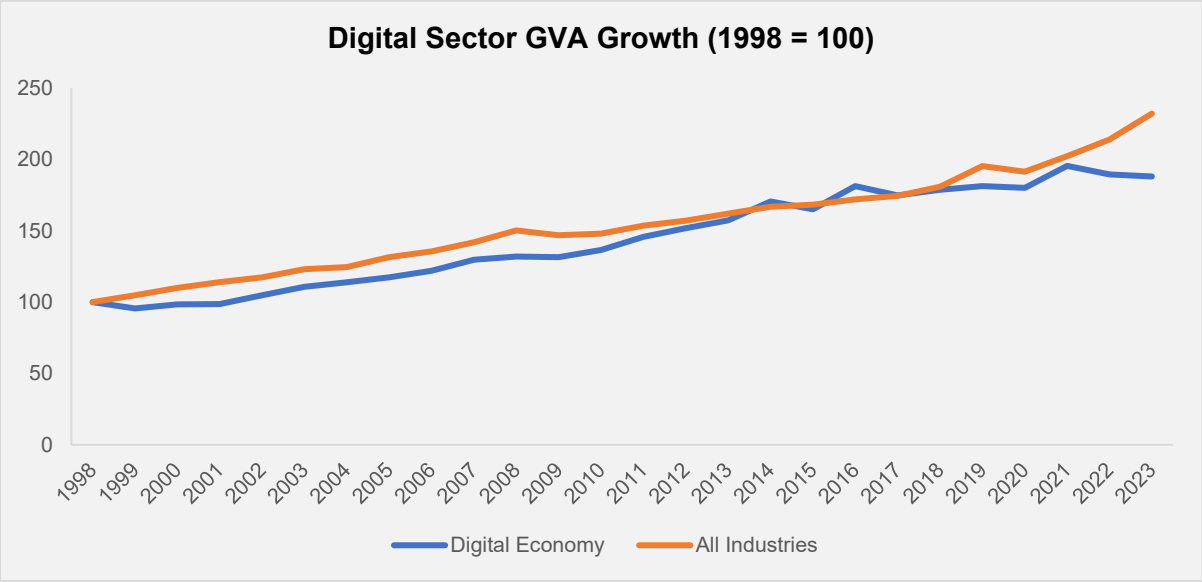
Figure 19 Digital Sector Share of Local GVA



Source: ONS, Regional gross value added (balanced) by industry: all ITL regions.

6.10.19. The Digital Sector is also growing quickly, as shown in Figure 20 below. Digital sector growth has broadly tracked the 'All Sectors' average growth since 1998 and although there has been a slight decline in GVA growth since 2020, the Digital Sector total GVA in 2023 was 88% higher than in 1998.

Figure 20 Digital Sector GVA Growth in Buckinghamshire 1998 – 2023



Source: Source: ONS, Regional gross value added (balanced) by industry: all ITL regions.

6.10.20. In summary, the data above demonstrates that Buckinghamshire has strong foundations in the Digital sector and the industry is increasingly becoming a key source of economic growth for the district. Therefore, the Site has excellent potential to grow the local Digital Economy and make an important contribution to sustaining local economic performance and boosting local productivity.

Land Use Receptors

6.10.21. As stated above, the existing site is occupied by a landfill and quarry site. While quarrying and landfill activity has ceased, the Site currently supports approximately 50 jobs, as verified by the landowner, associated with aggregate processing, the landfill gas engine, site office staff and drivers. Operation of the Site is due to cease imminently, separate to the Proposed Development, therefore these jobs will be lost regardless.

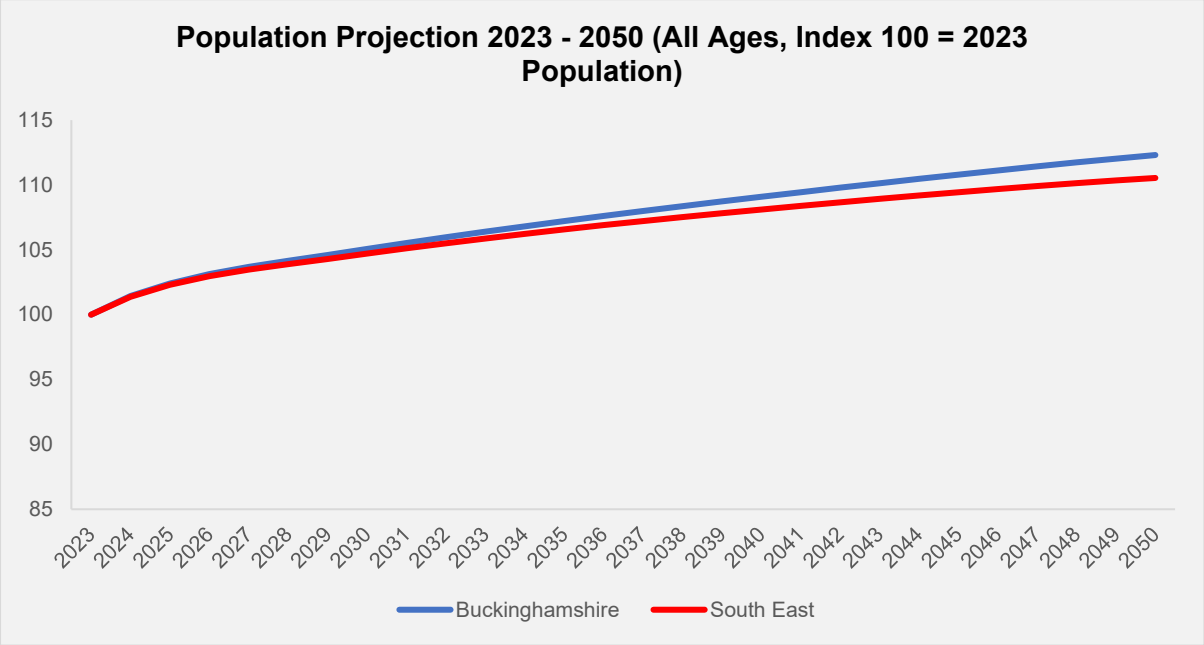
6.10.22. In terms of residential receptors, the nearest settlements are Beaconsfield (located approximately 2.5km west of the Main Development Area) and Gerrards Cross (located approximately 1.5km east of the Main Development Area). There is a residential property located in close proximity to the Site, on Hedgerley Lane and multiple residential properties on Wapseys Lane, to the south of the Site. The Wapseys Wood Caravan Site is located to the north of the Site and Bulstrode Park is located to the East.

6.10.23. In terms of community receptors, the majority of the community and amenity facilities located nearby are situated in Beaconsfield and Gerrards Cross. Both towns have a range of community facilities including schools, GPs, parks and open spaces and sports and leisure facilities as well as amenities including shops, restaurants and hotels. Both towns also contain a train station with connections to the north and south. The Crowne Plaza Hotel is located in close proximity, located north of the Site on Oxford Road.

Future Baseline Conditions

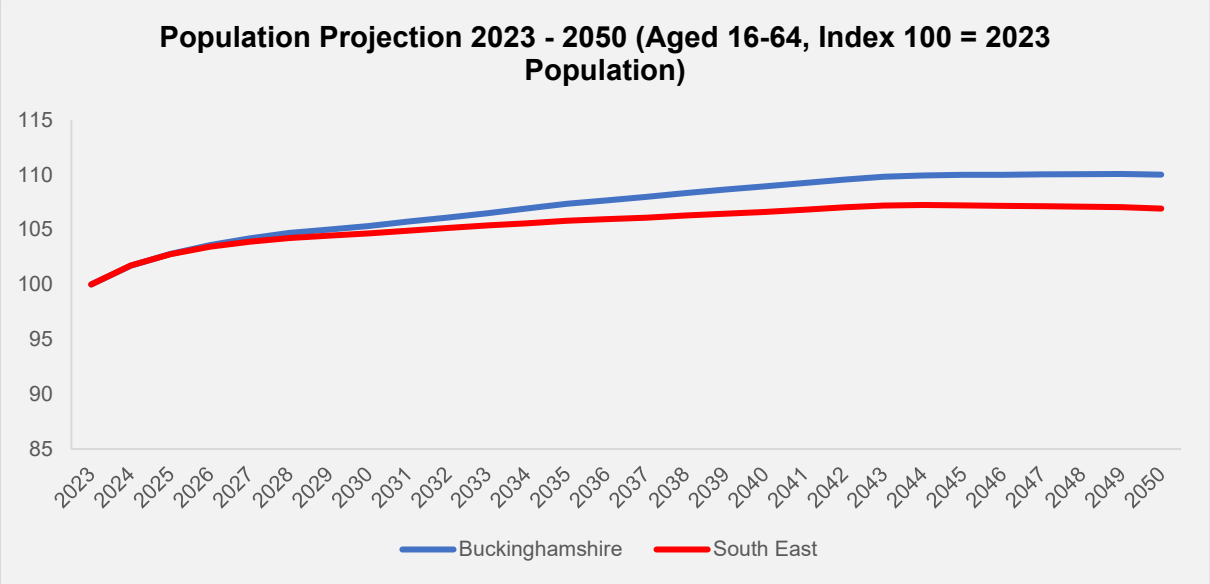
6.10.24. In the absence of the Proposed Development being implemented, the future baseline conditions are anticipated to largely remain the same as the existing baseline for socio-economics. However, it is reasonable to expect that the population would change. According to Oxford Economics[251], the population of Buckinghamshire is expected to increase from 566,000 in 2023 to 636,000 in 2050, which represents an increase of 12.3%. The working age population in Buckinghamshire is projected to increase from 345,000 in 2023 to 380,000 in 2050, representing a 10.0% increase. In both instances, the population growth is rate is higher than the South East average, as show in Figure 21 below.

Figure 21 Projected Population and Working Age (16-64) Population Change 2023 – 2050



Source: Oxford Economics

[251] *Oxford Economics, (2025), UK Local Authority Districts – Population Forecasts*



Source: Oxford Economics

6.10.25. In terms of the local economy, it would be reasonable to expect that employment and GVA would increase, associated with the expected increase in population. Businesses and community facilities may open and close, however it is not expected that there will be any perceptible changes to the current baseline conditions and policies affecting them. When considering effects on these socio-economic receptors, the assessment will therefore use the current baseline for construction and operation phase effects.

6.10.26. Changes that could occur as a result of Cumulative Schemes are considered within the *Cumulative Effects Assessment* section.

Receptors

6.10.27. The key potential receptors have been identified as follows:

a. The existing local community including Gerrards Cross and Beaconsfield electoral wards and the Beaconsfield and Gerrards Cross towns;

b. The existing wider community extending to the Buckinghamshire District level;

c. Construction workers;

d. Local residential properties;

e. Local community facilities (including schools, GPs and other healthcare facilities);

f. Local businesses; and

g. Open space and play space.

Establishing Receptor Sensitivity

6.10.28. Receptor sensitivity will be defined on the following basis:

a. **High Sensitivity** – where baseline data indicates significant issues or challenges are present within the study area – such as high levels of socio-economic deprivation or a land use receptor of high importance and rarity with limited potential for substitution or access to alternatives;

b. **Medium Sensitivity** – where baseline data indicators for the study area are broadly in line with benchmark averages, and/or have the potential to worsen over time or a land use receptor of medium importance and rarity with moderate potential for substitution or access to alternatives; and

c. **Low Sensitivity** – where baseline data indicates few challenges or issues within the study area compared with benchmark average and are unlikely to significantly worsen over time a land use receptor of low importance and rarity with alternatives available.

Assessment of Effects

6.10.29. The ES chapter will assess:

a. The potential for socio-economics impacts throughout the enabling and construction works and as a result of the completed development and resultant socio-economics effects;

b. The likely significant socio-economics effects;

c. Any required mitigation or monitoring to address any likely significant adverse socio-economics effects; and

d. The potential for cumulative effects in relation to socio-economics with other agreed upon schemes in the surrounding area.

Enabling and Construction

6.10.30. The Proposed Development may generate a range of socio-economics effects, some of which may be temporary, whilst others could be permanent. For the purposes of the ES, due consideration will be given to the following likely socio-economic effects, where it is considered likely significant effects are likely to arise as a result of the Proposed Development:

a. Generation of temporary employment opportunities and supply chain benefits during construction, including direct on-site employment and indirect or induced roles within the supply chain, with potential opportunities for the local population;

b. Generation of GVA as there is likely to be a temporary increase in GVA generated due to the construction activities;

c. Boost in local spending in the local economy on food and temporary accommodation during the construction phase, driven by demand from non-local construction workers;

d. Creation of training and apprenticeship opportunities during construction, driven by the skills requirements of the Proposed Development; and

e. Impact on local residents, local community facilities, local businesses and open space and play space generated from construction activities, including land taken up for development and via compulsory acquisition (if required), accessibility and amenity impacts as there is potential that the construction activities will cause disruption to local life.

Completed Development

6.10.31. For the purposes of the ES, due consideration will be given to the following likely socio-economic effects once the Proposed Development is complete and operational, where it is considered likely significant effects are likely to arise as a result of the Proposed Development:

a. Generation of permanent employment opportunities and supply chain benefits once the Proposed Development is operational, including direct on-site roles and indirect or induces roles within the supply chain, with potential opportunities for the local population;

b. Creation of training and apprenticeship opportunities linked to the Proposed Development, driven by the skills and workforce requirements of the completed scheme;

c. Generation of GVA from operational activities, reflecting the higher economic output associated with the new use introduced by the Proposed Development;

d. Generation of business rates from operational activities of the Proposed Development, reflecting the likely higher economic value of the proposal compared to the existing uses;

e. Securing significant inward investment into the UK economy as a result of the operational activities of the Proposed Development, which is expected to attract new investors and stimulate economic growth; and

f. Impact on local residents, local community facilities, local businesses and open space and play space generated from the operation of the Proposed Development, including accessibility and amenity impacts as there is the potential the Proposed Development, once operational, may cause disruption to local life.

Assessment Methodology

Enabling and Construction

6.10.32. The assessment of potential socio-economics effects during the enabling and construction phase will be undertaken using the following methodology:

a. Construction-related employment effects will be assessed using standard ratios of construction employment to output from the Office of National Statistics (depending on the level of information available at the time of assessment);

b. The assessment of the construction phase will quantify the expected construction employment supported in the study area, using CITB[252] research on the workforce mobility of construction workers in the South East region;

c. The assessment of the construction phase will quantify the expected temporary GVA generation supported in the study area, using national statistics and data from the existing application site;

d. The assessment of the construction phase will quantify the expected expenditure in the local economy on food and temporary accommodation from construction workers using national statistics on household expenditure[253] and CITB[254] research on the workforce mobility of construction workers in the South East region;

e. The assessment of the construction phase will quantify the expected training and apprenticeship opportunities supported by the Proposed Development using national statistics; and

f. A quantitative analysis of employment effects will be undertaken using established methodologies, including the Additionality Guide by English Partnerships (2014). The Additionality Guide[255] sets out a framework for assessing the extent to which a Proposed Development delivers outcomes that would not have occurred without intervention — such as achieving a greater scale, higher quality, faster delivery, or a different location. Additionality measures the net result, taking account of deadweight, leakage, displacement, and economic multipliers.

6.10.33. There is currently no statutory guidance on the methodology for undertaking assessments of socio-economic and land use effects. The assessment follows good practice methodology, professional judgement from other assessments undertaken on comparable schemes and effects identified in other technical chapters of the ES. As such, the socio-economic effects will be assessed on the basis of:

a. Sensitivity of resources / receptors: specific values in terms of sensitivity are not attributed to socio-economic resources / receptors due to their diverse nature and scale, however, the assessment will take account of the qualitative (rather than quantitative) 'sensitivity' of each receptor, and in particular, their ability to respond to change based on recent rates of change; and

b. Magnitude of impact: this entails consideration of the size of the impact on people or business within the context of the area in which the impacts would be experienced.

6.10.34. The magnitude of impact is based on a scale of:

a. **High Impact**: substantial change to one or more socio-economic receptors;

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[252] *CITB, (2023), Workforce Mobility and Skills in the UK Construction Sector 2022.*
[253] *ONS (2024). Family Spending (FYE 2023 edition).*
[254] *CITB, (2023), Workforce Mobility and Skills in the UK Construction Sector 2022*
[255] *Homes & Communities Agency, (2014), Additionality Guide – Fourth Edition 2014.*

b. **Medium Impact**: noticeable change to one or more socio-economic receptors;

c. **Low Impact**: hardly perceptible change to one or more socio-economic receptors; and

d. **Negligible Impact**: no perceptible change to one or more socio-economic receptors.

6.10.35. Effects will be defined as adverse (having a negative effect on the receptor in question) or beneficial (having a positive effect), as well as being either direct (occurring without any intervening factors) or indirect (requiring intervening factors to occur).

6.10.36. Where an effect is assessed as being beneficial or adverse, the scale of the effect has been defined based on the sensitivity of the receptor and the magnitude of impact, using the matrix present below in Table 70. Professional judgement is used to determine which category is most appropriate where scale output is borderline (i.e. Major / Moderate, or Minor / Negligible).

Table 70 Effects Matrix

Receptor Sensitivity	Magnitude of Impact			
	High	Medium	Low	Negligible
High	Major	Major / Moderate	Moderate / Minor	Negligible
Medium	Major / Moderate	Moderate	Minor / Negligible	Negligible
Low	Moderate / Minor	Minor / Negligible	Negligible	Negligible

6.10.37. Effects classified as moderate or major in scale are considered 'Significant'. Effects classified as minor or negligible in scale are considered 'Not Significant'.

Completed Development

6.10.38. The assessment of potential socio-economics effects once the Proposed Development is complete and operational will be undertaken using the following methodology:

a. The employment expected to be accommodated by the Proposed Development will be assessed by applying expected job density ratios based on the Homes and Communities Agency (HCA) (2015)[256] guidance and supplemented by locally specific information;

b. The expected increase in business rates as a result of the Proposed Development will be assessed by estimating the business rates value for the current uses of the Site and the Proposed Development based on the UK Government's business rates multiplier[257] and supplemented by locally specific information; and

c. The effect of securing significant inward investment on the UK economy (i.e. at a macro level) will be assessed qualitatively, with reference to Government policy objectives to grow the economy (with the Digital sector a key area of focus), the overall size of the UK economy, and the level of GVA generated both during construction and in operation.

6.10.39. The assessment of the remaining potential socio-economic effects during the operational period of the Proposed Development will use the same methodology as described above.

Cumulative Effects

6.10.40. In accordance with the Planning Inspectorate's Advice Note on Cumulative Effects[258], a long list of cumulative schemes will be identified for the Zone of Influence as set out above under 'Study Area', considering Tier 1, Tier 2 and Tier 3 developments. Consideration will then be given as to whether or not the identified developments should progress to the assessment of cumulative effects based on their distance from the Site and the type of development proposed. This will be clearly documented in the ES. Information on the development scoped into the cumulative effects assessment will be obtained from the relevant planning portal (i.e., Buckinghamshire Council's planning portal for Town and Country

[256] *Homes and Communities Agency, (2015), Employment Density Guidance.*
[257] *UK Government, (2025), Estimate your business rates.*
[258] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment.*

Planning development and the Planning Inspectorate's register for DCO developments). The level of information available for each development will depend on whether or not it is Tier 1, Tier 2 or Tier 3.

6.10.41. The methodology for assessing cumulative socio-economic effects for Tier 1 and Tier 2 developments will be in accordance with the assessment methodology set out in the Planning Inspectorate's Advice Note on Cumulative Effects[259], and assessment of effects will be broadly the same as that used for the assessment of the stand-alone effects. The cumulative assessment for socio-economic effects will estimate the cumulative impact on employment, GVA and business rates. The cumulative impacts on land use receptors such as local residents, local community facilities, local businesses and open space and play space will be assessed qualitatively. The cumulative effects assessment taking into consideration any Tier 3 development will be more qualitative as detailed information for these projects is unlikely to be available.

Decarbonisation Readiness

6.10.42. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion.

6.10.43. The construction of additional infrastructure to support Hydrogen Conversion would likely result in additional jobs / GVA generated during construction, and the potential for a small increase in operational jobs to operate the facility. This would not, however, affect the assessment methodology set out above, as changes would be captured within the project cost (which drives the quantification of jobs and GVA) during construction, and operational jobs would continue to be calculated in line with the above methodology.

6.10.44. Hydrogen Conversion therefore does not materially influence the socio-economics impacts or assessment. This is due to the basis of the assessment not materially changing as a result of the adoption of Hydrogen Conversion.

Mitigation

6.10.45. Embedded mitigation measures will be included in the design where practicable to help avoid, prevent or reduce effects on socio-economics and land use. Access to land use receptors would be maintained during construction wherever possible. This would be achieved through the use of best practice measures, regard to phasing of works and if necessary, providing diversions for users.

Impacts to be Scoped Out

6.10.46. No potential socio-economic impacts have been scoped out at this stage.

[259] *Planning Inspectorate (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment.*

7. NON-SIGNIFICANT ENVIRONMENTAL EFFECTS – TOPICS PROPOSED TO BE SCOPED OUT OF THE EIA

7.1. Overview

7.1.1. The following technical topics are proposed to be scoped out of the EIA:

a. Archaeology;

b. Human Health;

c. Odours[260];

d. Traffic and Movement;

e. Waste and Materials; and

f. Water Resources and Flood Risk.

7.1.2. Detailed justification(s) is set out under each of the following topic sub-headings, in line with PINS Advice Note 7, paragraph 5.10-5.11, and including consideration of the relevant legislation, policy and guidance which has informed the decision to scope out the above topics.

[260] *Although an assessment of 'Odours' is proposed to be scoped out of the EIA, the scoping out of 'Odours' from the EIA has been considered, and justification provided, within Section 6.2: Potentially Significant Environmental Effects – Topics to be Scoped In to the EIA: Air Quality (Paragraph 6.2.74). Therefore, the justification for the scoping out of 'Odours' is not re-presented in Section 7: Non-Significant Environmental Effects – Topics Proposed to be Scoped Out of the EIA, to avoid repetition. See Section 6.2 of this EIA Scoping Report for consideration of 'Odours'.*

7.2. ARCHAEOLOGY

Introduction

7.2.1. The need for an assessment of effects on Archaeology (below ground heritage assets) within the EIA has been considered by RPS part of TetraTech (RPS TT).

7.2.2. Following a review of the baseline conditions at the Site and surrounding area, and the limited potential for the Proposed Development to impact below ground heritage assets, Archaeology is proposed to be '**scoped out**' of the EIA. This is due to almost complete truncation of the Main Development Area by 20th century minerals extraction.

Baseline Conditions

7.2.3. An Archaeological Desk-Based Assessment (DBA) has been prepared by RPS TT for the Site. The DBA has been appended to this EIA Scoping Report (within **Appendix 3: Archaeology**), with specific references to figures (specifically Figures 1, 2a-2c and 3) within the DBA made throughout this topic sheet. Figure 22, presented further below, has been annotated to help clarify the specific Site areas discussed within this technical section of the EIA Scoping Report.

7.2.4. The Archaeology DBA includes a 1km radius study area, with data sourced from the Buckinghamshire Historic Environment Record (HER), to understand the surrounding context and to understand the potential of the Site itself (see Figures 2a and 2b **Appendix 3: Archaeology**). There is no standard study area radius for archaeological Desk Based Assessments, but between 0.75km and 1km is commonly used from the extent of the Site boundary for rural areas to provide a robust context.

7.2.5. The DBA has provided a review of the Site's below-ground archaeological potential and addresses the information requirements of national, regional and local planning policy. The Proposed Development comprises a Data Centre Campus and Energy Centre within the Main Development Area, with two internal routes to the west of the Main Development Area (see Figure 22). As illustrated by the DBA, the Main Development Area has been used for 20th century and later extensive mineral extraction, as shown by Historic Landscape Characterisation (see Figure 2c, **Appendix 3: Archaeology**), LiDAR (see Figure 3, **Appendix 3: Archaeology**), historic mapping and historic landfill records. This extensive truncation was also evident during the Site visit conducted in July 2025 which showed disturbed ground across the Site.

7.2.6. In terms of relevant designated heritage assets, no World Heritage Sites, Scheduled Monuments, Historic Battlefields or Historic Wrecks lie within the vicinity the Site. There are two Scheduled Monuments within 1km of the Site but only one has potential for any harm from the proposals. This is 'Templars' site at Moat Farm, Hedgerley' Scheduled Monument (List Entry 1006922; SU 97697 88312) which lies immediately east of the south-eastern corner of the Site (see Figure 2a, **Appendix 3: Archaeology**). An assessment of the Templars site at Moat Farm Scheduled Monument will be included within the Built Heritage assessment, refer to *Section 6.6: Built Heritage* of this EIA Scoping Report for further detail. A second Scheduled Monument is located in the vicinity is a Medieval 'Moated site in Bower Wood, 560m southwest of Bower Wood Cottages' (List entry 1017478), approximately 800m to the south-west of the Site. A site visit to check intervisibility and some setting assessment was undertaken on 24 July 2025 and found that due to its location within Burtley Wood, there is no potential intervisibility with the study area.

7.2.7. There are 21 HER fieldwork 'Events' and 139 'Monuments' records within the 1km study area (see Figure 2a, **Appendix 3: Archaeology**). No previous invasive archaeological investigations are recorded on the Buckinghamshire HER for within the study area itself (see Figure 2b, **Appendix 3: Archaeology**). In 1979 excavations took place at the medieval Moat Farm (which was then a scheduled monument), located approximately 50m to the east of the Site. The results are set out in the *'Medieval'* section below.

7.2.8. Other archaeological investigations that have taken place previously within the study area include a large archaeological geophysical survey and trenching evaluation conducted at Slade Farm, Hedgerley

Lane, Hedgerley, (NGR SP 966 883) in 2014 and 2015 respectively, located approximately 210m to the south of the Site and the M40.

7.2.9. Prehistoric finds are scattered across the study area with the most significant known site being the Iron Age hillfort of Bulstrode Park, located approximately 1.4 km to the east of the Site. Hunter-gatherer (Palaeolithic to Mesolithic) finds within the study area include very low levels of Palaeolithic flint artefacts and some possible Mesolithic (or later worked flints). Larger numbers of Neolithic and Bronze Age worked flints (including flint axes, arrowheads and other tools) are known from causal surface finds within the study area but despite the scatter of flintwork, no Neolithic features have been found to date in the study area.

7.2.10. The Verulamium (St Albans) to Silchester Roman road (Viatores Route 163) ran on a northeast / southwest alignment approximately 750m to the northwest of the west end of the western proposed access route (MBC11530; 0436100000). A second possible Roman road between London and south Oxfordshire is suggested as running northwest / southeast through the study area, some 200m to the south of the Site. Another possible Roman road alignment is suggested to the southwest of the Site but is very uncertain according to the associated Historic Environment Record. Roman findings in the study area include a series of single chamber 2nd century Roman kilns (known as Hedgerley kilns) found approximately 120m to the south of the Site ahead of minerals extract ion in the 1930's and in the 1960's. Further Roman kilns have been identified more recently.

7.2.11. In addition, archaeological investigations at Slade Farm, Hedgerley Lane and at the M40 Beaconsfield motorway services, have identified evidence of Neolithic, Romano-British and later inhabitation of the landscape.

7.2.12. There are no Saxon period / early Medieval buried archaeological sites or finds known within the study area. As noted above, Moat Farm, Hedgerley (List Entry 1006922; SU 97697 88312) lies at the immediate eastern edge of the Site. Based on documentary records the moated site is thought to have an association with the Templars Preceptory here, dated from the 13th Century (founded pre-1276) and in use to the 14th Century (dissolved 1308-12). It was then the Site of a Medieval Manor House from the 14th to 17th century, following which it was used as a farm.

7.2.13. A combination of LiDAR (Figure 3, **Appendix 3: Archaeology**) Ordnance Survey mapping, historic landfill mapping, Historic Landscape Characterisation (HLC) (see Figure 2c) (refer to the DBA within **Appendix 3: Archaeology** for these figures) held by the Buckinghamshire HER[261] and a site visit by the author of this technical section of the EIA Scoping Report, have confirmed that the entire main Site area has been severely truncated by minerals extraction, with later landfill and landscaping creating an undulating entirely modern formation topography. These historic activities would truncate a large portion of the Site, removing any buried archaeology assets.

7.2.14. There is a relatively minor exception to this high level of truncation in terms of the western end of the proposed southern internal route which links to the Main Development Area (as indicated on Figure 22) and the contiguous area at the southwestern extent of the Site (see Figure 3, **Appendix 3: Archaeology** HLC map), which shows a small area of extant farmland enclosure and wood here).

7.2.15. The remainder of the access routes are commensurate with industry on the HLC map and are mainly within landfilled areas, though there are small pockets at the western extent of the Site which may be untruncated by quarrying based on the quarry extent shown by Google Earth. The other possible exception to truncation is where the northern internal route linking to the Main Development Area (as indicated on Figure 22) is aligned over a current rough (dirt) track through an untruncated zone of Wapseys Wood. It appears that any surviving archaeological remains within the access routes, in the context of the Secretary of State's non-statutory criteria for Scheduled Monuments (DCMS 2013[262]), would most likely be of overall low / local significance.

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[261] *Further information is included in the Montagu Evans Built Heritage assessment.*
[262] *Department for Culture, Media and Sport (2013) Scheduled Monuments & nationally important but non-scheduled monuments.*

Justification for Scoping Out

7.2.16. PINS Advice Note 7 provides a guidance note on the EIA process for NSIPs, and has been considered as part of the justification for the scoping out of archaeology.

7.2.17. The proposals within the southwestern portion of the Site include a gas above ground infrastructure (AGI) facility. This would be connected via below ground pipework running parallel to the M40 to the main development zone (along the southern internal route). There is a low potential that any new groundworks required (where those works may potentially not have completely removed virgin ground by gravel extraction) would encounter archaeology. If present (i.e. if identified via standard evaluation trenching) these would most likely be of low (local) significance. These locations may best be shown by the HLC Figure 3c (included in **Appendix 3: Archaeology)** which indicates those areas where field enclosure survives, with the vast majority of the Site shown as 'industrial'. Given the restricted area of the Site where there may be virgin ground, it is considered unlikely there will be significant effects to archaeology in this area due to the potentially limited extent and sensitivity of potential assets.

7.2.18. Given the removal of virgin ground within most of the Site via minerals extraction ('industrial' on Figure 2c, **Appendix 3: Archaeology**), the groundworks associated with the enabling and construction phase of a scheme, including site preparation, excavation for roads, realignment of site topography to facilitate the design of the Proposed Development, foundations, services and landscaping, are not anticipated to have any impact on buried archaeology for the Main Development Area itself (as labelled on Figure 22).

7.2.19. As above, the impact on archaeology, if present at all, would be within a very restricted area at the southwestern edge of the Site (principally where the Gas AGI is likely to be located, along with the western end of the proposed southern internal route linking to the Main Development Area). Other areas within the Site have been subject to truncation (as described above) associated with historic activities, and significant effects are not anticipated. There are no known sites or finds currently identified within the Site, and if present but yet to be identified, these would be highly geographically restricted. The effect to archaeology is unlikely to be widespread or significant (in EIA terms).

7.2.20. Furthermore, as the extent of any archaeology that may be present is likely to be highly localised, it is very unlikely that they could extent to other proposed developments in terms of cumulative effects.

7.2.21. As the effects to archaeology receptors would be experienced only during the enabling and construction phase, no effects would occur once the Proposed Development is complete and operational.

Decarbonisation Readiness

7.2.22. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion, which may require additional pipeline infrastructure to enable connection to an off-site pipeline (either existing or new (e.g. through the National Gas's Project Union)). The location of this would be subject to further review at later design stages, but would have similar impacts to those identified in the sections above. Significant effects from Hydrogen Conversion are not anticipated to archaeological receptors.

Summary of Mitigation

7.2.23. Engagement with Buckinghamshire Council Archaeological Service (BCAS) will be undertaken to determine whether any evaluation trenching or mitigation is required for the limited untruncated areas (gas AGI facility connected via below ground pipework running parallel to the M40 in the south-western corner of the Site) (in accordance with NPPF Section 16 (including paragraph 218). No other areas of the Site are anticipated to require mitigation, given the historic uses on the Site and the design of the Proposed Development. Should this be required, this could be controlled through a Development Consent Order requirement.

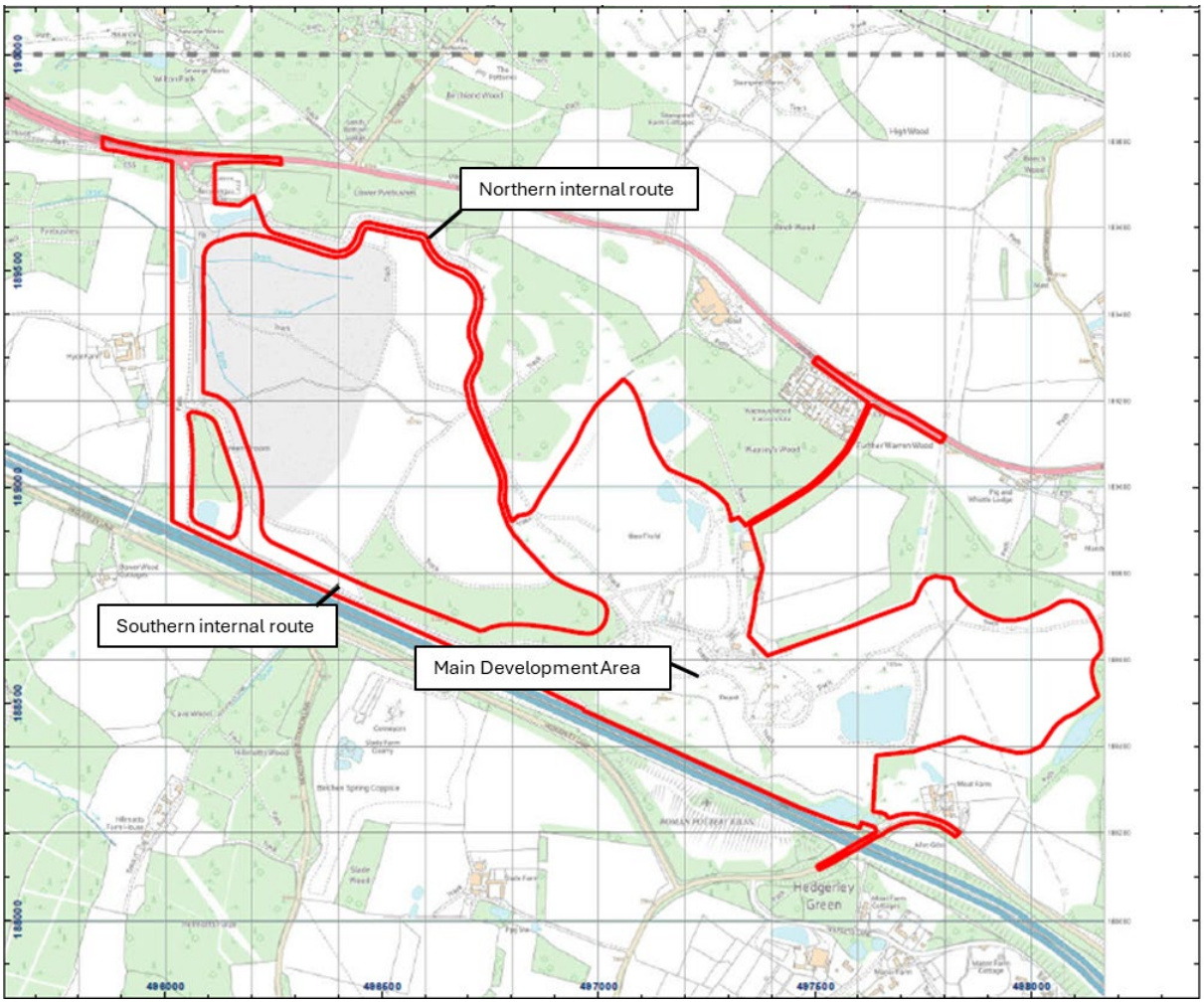
7.2.24. In the event that standard gridded evaluation trenching (5% by area is commonly applied in Buckinghamshire) is required it will provide the means of identifying the non-significant effects that may require mitigation. BCAS will be consulted in relation to requirements and if required suitable evaluation

methodology to ensure suitable offsetting or mitigation of archaeological impacts are implemented if necessary.

Conclusion

7.2.25. As such, given the high degree of minerals extraction truncation over almost the entire Site and the absence of archaeological remains within the restricted southwestern zone (where the gas AGI facility connected via below ground pipework running parallel to the M40 will be located), it is considered that the impact of the Proposed Development in relation to Archaeology are very unlikely to be significant in EIA terms. The conclusion is informed by a detailed Desk Based Assessment. Based on the above, it is proposed to **scope out** an assessment of the Proposed Development's effects on Archaeology.

Figure 22 Site Boundary and Areas Discussed within this Technical Section



7.3. HUMAN HEALTH

Introduction

7.3.1. The need for human health has been considered by Trium Environmental Consulting LLP.

7.3.2. Following a review of the baseline conditions at the Site and surrounding area, this topic is proposed to be '**scoped out**' of the EIA.

Baseline Conditions

7.3.3. The Site is occupied by landfill waste land, much of which is historic landfill that is no longer in active use and has since been planted with grasses, shrubs and trees.

7.3.4. The following PRoWs traverse parts of the Site, however these are fenced off and therefore the wider site is largely inaccessible:

a. Footpath GEC/12/1 (passing through the tree/shrub belt along the southern site boundary);

b. Footpath GEC/11/1 (connecting Footpath GEC/12/1 with the A40 near the Crowne Plaza Hotel);

c. Footpaths GEC/13/1 and GEC/13/3 (connecting Footpath GEC/12/1 with the housing cluster at the northwestern corner of Bulstrode Park); and

d. Footpath GEC/25/1 (extending east from Footpath GEC/13/3 along the northern side of Moat Farm).

7.3.5. Immediately surrounding the Site, land is predominantly comprised of open green areas and agricultural land, with small pockets of residential uses dispersed throughout. There is also a caravan site (Wapseys Wood) and hotel directly north of the Site, a recycling centre to the northwest, and a large Quarry to the south. The towns of Beaconsfield and Gerrards Cross are located further to the northwest and southeast of the Site, respectively.

7.3.6. 'Receptors' within the context of human health in EIA, refers to 'relevant populations'. Beyond this, some sub-groups within the overall population are more susceptible to changes to health determinants or 'magnitudes of impact' due to existing biophysical or socio-economic factors. These sub-groups or 'vulnerable groups' are thus considered more sensitive than the general population.

7.3.7. In this case, the sensitive receptor (vulnerable group) most relevant to the Site and the Proposed Development is the Gypsy and Traveller community living at Wapseys Wood. It is understood that the number of pitches at Wapseys Wood is estimated to be 120-150, which exceeds the existing permission for 30 dwellings; this may indicate that there is some overcrowding at the Site. In addition, the caravan site is in varying states of maintenance / repair and there is significant fly tipping (waste, scrap materials, burnt out vehicles, etc.) in and around the park, as well as several horses roaming on neighbouring land. Several large lorries also regularly park on the access road leading up to and beyond Wapseys Wood Caravan Site, including on a neighbouring private access road. These further contribute to the understanding that elements of Wapseys Wood Caravan Site offer sub-standard living conditions which contribute to a more vulnerable resident population.

Justification for Scoping Out

7.3.8. A number of key guidance documents relating to the consideration of human health as part of EIA have been published since the inclusion of this topic in the IP EIA Regulations in 2017. These indicate that consideration of human health as a topic should be proportionate and, in most cases, can be scoped out of the EIA:

a. Health in Environmental Impact Assessment – A Primer for a Proportionate Approach (IEMA[263], May 2017): *"The scoping of population and human health issues into EIA should focus on whether the potential impacts are likely to be significant."*;

[263] *Now the Institute of Sustainability and Environmental Professionals (ISEP).*

b. Human health: Ensuring a high level of protection (IAIA, December 2020): *"Scoping health should be proportionate. Health effects that are not likely to significantly affect population health should be 'scoped-out'."*;

c. Effective Scoping of Human Health (IEMA, November 2022); and

d. Determining Significance for Human Health (IEMA, November 2022).

7.3.9. The IEMA 'Effective Scoping of Human Health' guidelines stipulate that EIA scoping should be proportionate, focusing on the project's likely and potentially significant effects on population health (noting this guidance was produced principally to help guide assessments for Nationally Significant Infrastructure Projects (NSIP)). This guidance has been used to inform the proposal to 'scope out' human health as an ES chapter, through the following discussion of the identified wider determinants of health, using available scheme information, baseline data and professional experience.

7.3.10. It should also be noted that, in accordance with IEMA's guidance on 'Determining Significance for Human Health in EIA', *"EIA analysis at the level of individuals would likely mean that all determinants of health conclusions, positive or negative, would be significant on all projects because of the effects to some particularly sensitive individuals. This would be contrary to supporting decision-makers in identifying the material issues. Assessment of EIA significance at the level of individuals is not proportionate."*.

7.3.11. In line with this guidance, while the Project is likely to result in a range of impacts, these are ultimately unlikely to be significant in EIA terms.

7.3.12. Furthermore, the justification and approach to scoping out human health from the EIA has been considered against the PINS Advice Note 7, specifically section 5.11.

General Population

7.3.13. The assessment of human health in EIA is a qualitative, evidence-based evaluation based on a broad socio-economic model of health and wellbeing, encompassing conventional impacts such as disease, accidents and risk, along with wider determinants such as employment and local amenity. In its breadth, this model considers both physical and mental health, as well as both 'social' and 'ecological' (environmental) determinants of health

7.3.14. During the Proposed Development's enabling and construction phase, new jobs will be supported on-site and in wider supply chains. However, the scale of these enabling and construction works is not expected to be large enough to generate significant effects with regard to population level human health, particularly at the regional scale. Noting the Site's location at the southern edge of Buckinghamshire, it is reasonable for workers to live across Buckinghamshire (approximately 13,000 jobs in the construction sector[264]), as well as Slough (3,500 construction jobs[265]), Windsor & Maidenhead (4,500[266]), and Hertfordshire (44,000[267]). Given the mobility of the construction industry, this wider geographic scale is a more accurate range for determining impacts on this receptor than a more localised assessment area.

7.3.15. During enabling and construction, the scale of works is also not expected to be large enough to result in significant human health effects at the population level. With appropriate measures in place and outlined in a CEMP (or equivalent), legislation and best practices should reduce any risk of significant adverse impacts on human health for the local population during the construction phase. Additionally, while there is a risk of impacts on local residents with regard to land take, accessibility and amenity changes on local community facilities, local businesses and open and play space, it is considered that there is sufficient alternative provision and access routes in the local area so as not to result in significant effects on human health.

[264] *NOMIS (2023). Labour Market Profile – Buckinghamshire. Labour Demand.*
[265] *NOMIS (2023). Labour Market Profile – Slough. Labour Demand.*
[266] *NOMIS (2023). Labour Market Profile – Windsor & Maidenhead. Labour Demand.*
[267] *NOMIS (2023). Labour Market Profile – Hertfordshire. Labour Demand.*

7.3.16. Once complete and operational, the Proposed Development will result in a net gain of employment on-site due to the expansion of existing commercial floorspace and uplift in employment density for proposed uses. However, the number of jobs to be supported on-site is not expected to be substantial enough to result in significant effects on human health (i.e. resulting in a notable change to existing training and skills levels, employment rates, wages or quality of life amongst local residents). Likewise, the nature of roles to be supported, whilst they may be considered significant at a large economic scale, is unlikely to result in any notable change to income levels and associated quality of life for the general population in terms of human health.

7.3.17. The Proposed Development will also provide extensive green infrastructure to the surrounding landfill area. This increased green infrastructure, paired with the intention to reduce the visual massing of the Proposed Development through bunds and screening, should provide a landscape benefitting from public footpaths passing through various habitats, contributing to the provision of open and green space, neighbourhood amenity, and biodiversity. In anticipation of the Proposed Development and accompanying landscapes are well-design in line with appropriate guidance and best practice, public open spaces on-site should also respond to safety and security concerns by providing signage and wayfinding, lighting and overlooked areas to deter criminal and anti-social behaviour.

7.3.18. While the Proposed Development does include elements which will alter existing air quality and the acoustic environment, it is anticipated that these will be designed and implemented in line with appropriate legislation and guidance so as to not cause undue harm to workers on-site or to local communities. Additionally, a CEMP (or equivalent) will include mitigation and management measures in relation to construction air quality and acoustics. Thus, significant human health effects are considered unlikely.

7.3.19. Without a residential element, the Proposed Development will neither contribute to local housing targets nor increase demand for social infrastructure such as GP surgeries, primary and secondary schools, or open and play space. Likewise, the Proposed Development neither removes nor introduces any health, education, social care or active travel infrastructure, or food suppliers.

Vulnerable Groups

7.3.20. Residents of Wapseys Wood Caravan Site are likely to face both a number of direct impacts related to the Proposed Development, as well as being considered in broad terms to be a 'vulnerable group' and protected under the Equality Act 2010[268]. However, it should be noted that the existing condition of the Site (i.e. it being an non-operational landfill site with ongoing maintenance and management activities), the Wapseys Wood Caravan Site and its immediate surroundings are such that the baseline position is unlikely to be materially impacted either by construction activities and, once operational, the Proposed Development will notably improve the accessibility and amenity value of the open and green space located on-site. Additionally, a CEMP (or equivalent) will include mitigation and management measures in relation to construction air quality and acoustics. With this understanding of the local population and their living environment, it is considered that impacts on human health for this range of groups is unlikely to be significant, thus this topic may reasonably be expected to be scoped out of the ES.

7.3.21. In lieu of a Human Health chapter within the ES, it is proposed that a combined Health and Equalities Impact Assessment be prepared to define the Proposed Development's health and wellbeing impacts at both the population level and on vulnerable and protected groups, including residents of Wapseys Wood.

7.3.22. While not explicitly required by the Equality Act 2010, Equality Impact Assessments (EqIA) are a widely accepted tool used to support demonstrating compliance with the Act. As Gypsy and Traveller groups (including some residents of Wapseys Wood) have been declared by the courts to be protected as

[268] *UK Parliament (2019). Research Briefing: Gypsies and Travellers. Available at: https://commonslibrary.parliament.uk/research-briefings/cbp-8083/. Accessed: 13 November 2025.*

‘races’ under the Equality Act 2010, an EqIA would be an effective way of capturing the nuances of these communities’ unique needs and challenges in general.

7.3.23. There is significant overlap in the scope and aim of Health Impact Assessments (HIA)s and EqIAs, with the main differences in these reports relating to their focus on overall population health and its vulnerable groups (the HIA) and those with protected characteristics (the EqIA). In addition, it is understood that the most likely impacted range of groups in this case are protected under the legislation. Therefore, to avoid duplication of work and create a more streamlined assessment of likely and relevant impacts, it is proposed that a combined Health and Equalities Impact Assessment be prepared to define the Proposed Development’s health and wellbeing impacts at both the population level and on residents of Wapseys Wood Caravan Site, as well as to more succinctly demonstrate how any adverse effects would be mitigated. This report will be submitted with the DCO application.

Decarbonisation Readiness

7.3.24. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion, which is not expected to change the relevant human health receptors, nor the effects likely to be identified. In line with the justification above, significant effects arising from the adoption of Hydrogen Conversion are not expected in relation to human health.

Summary of Mitigation

7.3.25. Mitigation measures embedded into the scheme which will appropriately address any likely adverse effects on the health of the local population, and reduce wider health inequalities include, but are not limited to:

a. A CEMP (or equivalent) to reduce impacts during the enabling and construction works such as poor air quality, noise and vibration, and resident inconvenience during anti-social hours;

b. Provision of public open and green space; and

c. The provision of high-quality development designed in line with appropriate guidance and legislation.

Conclusion

7.3.26. As such, it is considered that the population-level impacts of the Proposed Development on human health are unlikely to be significant, thus this topic is proposed to be **scoped out** of the ES.

7.4. TRAFFIC AND MOVEMENT

Introduction

7.4.1. The need for the assessment of Traffic and Movement within the EIA has been considered by Velocity Transport Planning.

7.4.2. Following a review of the baseline conditions at the Site and the surrounding area, this topic is proposed to be '**scoped out**' of the EIA.

7.4.3. This reflects the negligible operational traffic generation characteristics of the Proposed Development and the strategic highway network context, with direct access away from any potential sensitive receptors that would limit the likelihood of any significant effects. Whilst there will be traffic generated during construction, it is anticipated that this will be addressed through the supporting management plans submitted alongside the submission of the DCO application.

7.4.4. The future application will be accompanied by a Transport Assessment (TA), Outline Travel Plan and Outline Construction Management Plan (CTMP) that will consider the effects of the Proposed Development Traffic. These documents will include relevant support mitigation measures that will be put in place to prevent the occurrence of any significant effects.

Baseline Conditions

7.4.5. The Main Development Area of the Site comprises approximately 22.3 hectares of land north of the M40 motorway and south of the A40 Oxford Road, currently operated by Veolia for landfilling of inert building waste. The Site benefits from excellent strategic connectivity while being located away from sensitive local road networks.

7.4.6. The M40 Motorway runs immediately south of the Site boundary, providing strategic east-west connectivity with Junction 2 (Beaconsfield), located approximately 2km to the east. The A40 Oxford Road forms a major trunk road along the northern Site boundary, providing direct connectivity between the M40 and the central London / Oxford corridor.

7.4.7. Current traffic flows are documented through the Department for Transport (DfT) static counts. The 2024 manual count data (ID: 28829) for the A40 Oxford Road shows a total Annual Average Daily Traffic (AADT) of 18,679 vehicles, including 550 daily heavy good vehicle (HGV) movements. Further traffic surveys of the baseline conditions will be undertaken in support of the application and detailed within the supporting TA following agreement with Buckinghamshire Council (BC), in their capacity as Local Highway Authority on the proposed highway survey scope in terms of locations, timings and frequency.

7.4.8. It is unknown at this stage the daily number of vehicle trips associated with the landfill now waste acceptance activities have ceased, however the Site has consent for a total permitted annual tonnage of 237,500 tonnes. While the Site is operational between 07:00 and 18:00 Monday to Friday and 07:00 and 13:00 on a Saturday, the landfilling activities are no longer operational (the Site is only used for ongoing maintenance and management purposes as per the EA licence (Permit EPR/XP3636KW)). It is anticipated that traffic flows associated with the existing Site would be captured within the baseline surveys following agreement with BC on the scope.

7.4.9. Public transport provision includes Beaconsfield railway station offering mainline services approximately 4km from the Site, with local bus services operating along the A40 corridor. These bus services provide a twice an hour service between High Wycombe (westbound) and Heathrow Airport (eastbound). The area has limited pedestrian and cycle infrastructure, reflecting the semi-rural context of the surrounding environment.

7.4.10. There are a number of Public Rights of Way (PRoW) which run through the Site and connect to the existing PRoW network, details of which will be provided in the supporting TA that accompanies the future application. Footpaths are the main designation of PRoW through the Site, with a restricted byway on the edge of the scoping boundary.

Access

7.4.11. The Site is currently accessed via an existing access road from the A40 Oxford Road to the northeast, which accommodates regular HGV movements for the ongoing maintenance and management of the landfill operations.

The proposed access strategy is still under development, with the likelihood of a primary and secondary access from the A40 Oxford Road to the north. The details of the access strategy will be agreed with BC prior to submission and presented within the supporting TA.

Justification for Scoping Out

7.4.12. Based on a review of baseline conditions and characteristics of the Proposed Development, it is concluded that there would be no likely significant effects as a result of the Proposed Development in relation to Traffic and Movement. This has been considered against the requirements of PINS Advice Note 7, specifically section 5.11, and which are discussed as relevant within this topic sheet.

7.4.13. The A40 Oxford Road, from where the Site is accessed, joins directly onto the strategic road network and M40 via the A355, avoiding any Traffic effects to the local road network where sensitive receptors and non-motorised users may be located. As such the Site does not have any sensitive receptors located within close proximity or along the likely routing for vehicles from the Site to the strategic road network, which will comprise the A40 and the M40 – both of which are away from sensitive receptors and away from any non-motorised users.

7.4.14. The Proposed Development, comprising of an Energy Centre and Data Centre Campus, would generate minimal levels of operational traffic due to their nature as infrastructure, with a nominal amount of vehicular activity) associated with staff and maintenance (when considered in the context of traffic generation). Whilst details on the exact levels of trip generation are being developed as the Proposed Development's design and layout evolves, it is expected by way of management and the mitigation measures (that will be secured through the planning process for the Proposed Development) that any vehicle trips generated would fall below the typical thresholds informally used by BC and across the wider transport industry previously associated with the Department for Transport (DfT) 'Guidance on Transport Assessment' (2009) of 30 two-way vehicle trips during the AM peak (08:00-09:00) and PM peak hour (17:00-18:00) to require detailed traffic assessments.

7.4.15. It is understood that the landfilling activities are no longer operational, as such the vehicles accessing the Site are associated with ongoing maintenance and management purposes as per the EA license, this will be generally minimal when compared to the historic use. Additionally, a nominal amount of vehicle activity associated with the storage of vehicles in the Veolia vehicle depot would also be expected. Once the Proposed Development is operational the associated trips would likely be a reduction in total number of vehicles and a similar number of HGVs in comparison with the historic landfill use, meaning overall there is unlikely to be any material change from what has historically taken place on the local highway network. The nominal level of vehicle activity associated with the Veolia vehicle depot is likely to be retained as it is proposed to be relocated within the Site.

7.4.16. Whilst construction activities may generate temporary traffic impacts on non-motorised and motorised users due to the increases in traffic, these would be managed through CTMP measures and are not expected to be significant in EIA terms given the lack of any sensitive receptors within the local area, such as any places where non-motorised or vulnerable road users would congregate such as schools or care homes. The CTMP will include details on the phasing and strategy, the management measures, the monitoring approach, and includes the proposed routing strategy using the strategic road network and avoiding local roads.

IEMA Threshold Framework

7.4.17. The IEMA 'Environmental Assessment of Traffic and Movement' ('EATM', 2023) Guidance sets out the following indicative 'rules of thumb' for scoping:

a. **Rule 1:** Include any highway link with an increase in daily traffic flow of 30% (or a 30% increase in HGVs); and

b. **Rule 2:** Include any sensitive highway link with an increase of 10% (or a 10% increase in HGVs).

7.4.18. From undertaking a review of the existing traffic flows in the area, (DFT Count: 28,829) along the A40 Oxford Road where the Site would be accessed from, it is estimated a total AADT of 18,679 vehicles use this road daily (with 550 daily HGVs).

7.4.19. Based on professional judgement (in accordance with the IEMA requirements) and a combination of both desktop and in-person site visits, it is not considered that the A40 Oxford Road would be classified as a sensitive link given its semi-rural context, being a dual carriageway and the minimal interaction with non-motorised users. On that basis, the Proposed Development would broadly need to exceed the screening threshold of a 30% increase, which represents an increase of 5,604 daily vehicles and 165 daily HGVs. It is not considered likely that vehicle movements associate with the Proposed Development would exceed these thresholds.

Construction Phase Assessment

7.4.20. Construction activities represent the worst-case scenario for traffic generation due to the quantum of trips and vehicle type, usually requiring HGVs, which are needed to transport the materials and equipment comprising the Proposed Development as well as engineering works such as the creation of the on-site infrastructure including roads and any retaining structures. This is likely to exceed the traffic generated once the Proposed Development is operational, when there is only nominal traffic associated with staff and maintenance.

7.4.21. At this stage the details on construction and phasing are limited but it is assumed that during the peak construction phase periods, the Proposed Development is anticipated to generate HGV movements that could approach the IEMA threshold of a 30% uplift in HGVs (165 daily HGVs), but will not exceed the total vehicle uplift.

7.4.22. However, these impacts would be expected to be temporary and time-limited to the construction programme (which will be confirmed as part of the standalone CTMP). Typically, the earlier and middle stages of construction relating to enabling works and sub structure equate to a larger number of vehicles, mainly being due to number of deliveries arriving to Site and the removal of waste in comparison with the later fit out stages, which can be undertaken by smaller vehicles. This position will be reviewed should construction information become available, and it be apparent that the IEMA EATM thresholds will be significantly exceeded.

7.4.23. Even in this worst-case scenario, any impacts would be managed through comprehensive CTMP measures that would include the following and be secured appropriately through the planning processes, with any additional measures being agreed with key stakeholders in advance including BC:

a. Restrictions on vehicle routing and timings (to avoid network peak hours and School drop off and pick up);

b. Consolidation to reduce the number of vehicles expected; and

c. Monitoring in the CTMP to set out a daily cap and limit on the expected size of vehicles, where possible.

7.4.24. The A40 Oxford Road does not contain any desire lines for non-motorised users and thus the uplift in HGVs is unlikely to lead to any significant effects with reference to the IEMA EATM effects of severance, driver delay, pedestrian delay, non-motorised user amenity, fear and intimidation, road safety and hazardous / large loads. Any changes to driver delay or road safety would be addressed through the TA in agreement with BC.

7.4.25. Once vehicles have joined onto the A40, the Pyebush roundabout to the west provides access to the A355 and then eventually the M40 Junction 2, which forms the strategic road network where this level of uplift is not likely to be material.

7.4.26. At this stage it has been assumed that the majority of the material will be able to be retained on-site and on that basis the impacts of its removal will not be significant. In the event that a significant removal of material is required, and which would result in larger than anticipated vehicle movements which would exceed relevant guidance thresholds, then construction traffic would be considered within the EIA. This will be kept under review as the design progresses, with the approach clarified within the Environmental Statement.

7.4.27. The strategic road network is anticipated to be able to accommodate construction traffic without any significant effects. The temporary nature of construction impacts, combined with management through established CTMP procedures, indicates that even worst-case construction phase impacts would not be expected to be significant in EIA terms.

Operational Phase Assessment

7.4.28. The Proposed Development would be unlikely to exceed the screening thresholds set by Rule 1 on the roads surrounding the Site of a 30% uplift in AADT (5,604 daily vehicles).

7.4.29. Based on professional experience of other similar infrastructure land uses, the typical daily vehicle trip generation is less than 1,000 vehicles, which given the local highway context would not trigger the need for any assessment or be material in EIA terms.

7.4.30. Staff movements would be scheduled predominantly outside of network peak periods due to shift-based working patterns. Maintenance visits are expected to be infrequent and schedulable outside peak periods, while deliveries represent occasional movements manageable through operational procedures.

7.4.31. The operational phase will also be supported by the Travel Plan. It is anticipated that it will be provided in Outline for the application then secured by way of DCO requirement which would further seek to reduce the impact of any operational trips from the Proposed Development. These measures will be set out in the Travel Plan, however they typically seek to reduce the number of single occupancy car journeys by promoting other alternative sustainable modes of transport.

Decarbonisation Readiness

7.4.32. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion. Hydrogen Conversion is not expected to materially alter the number of vehicles required once operational, nor exceed the thresholds identified above. In line with the justification above, significant effects are not expected in relation to traffic and movement arising from the adoption of Hydrogen Conversion.

Summary of Mitigation

7.4.33. The Proposed Development would therefore be likely to implement the following mitigation measures all secured through the DCO application:

a. **Construction Traffic Management:** it is expected that the CTMP will be secured through the DCO requirements and the future contractor and operator of the Proposed Development will need to accord with its requirements. The measures will include complying with the agreed routing and utilising the strategic road network to access the Site. Other measures included within the CTMP are set out earlier in this Technical Section of the EIA Scoping Report, including restrictions on delivery timings, accreditation of suppliers and promotion of last-mile logistics and consolidation to reduce vehicle frequency and size;

b. **Transport Assessment (TA):** the TA accompanying the DCO application will include a trip generation assessment, highway safety review, parking provision assessment, and review of sustainable transport measures to potentially improve access to the Site for non-motorised

users and to ensure the transport strategy is appropriate for the intended users. Through the assessments within the TA, this will confirm the need for any additional mitigation which may include improvements to the access points or local road network;

c. **Travel Planning:** A Travel Plan promoting sustainable transport alternatives to single occupancy car drivers and off-peak travel patterns will be secured for the operation uses, reducing the number of vehicles required to the Site. It is anticipated that through the Travel Plan, ongoing monitoring arrangements will be secured through the DCO requirements to verify operational trip generation assumptions and ensure that any mode share targets are achieved; and

d. **Access and Road Safety:** The Proposed Development layout will ensure appropriate access provisions, including emergency access, will be maintained alongside servicing requirements as a priority. Any works to the public highway will be supported by a Stage 1 Road Safety Audit (RSA) in accordance with the IEMA Environmental Assessment of Traffic and Movement (2023) Guidance.

Conclusion

7.4.34. As such, it is considered that the impact of the Proposed Development in relation to Traffic and Movement will not be significant in EIA terms.

7.4.35. A comprehensive TA will be prepared as a standalone document to support the future application. This will be accompanied by a CTMP to manage temporary construction impacts and a TP setting out sustainable transport measures to encourage sustainable travel to the Site.

7.4.36. Based on the above, it is proposed to **scope out** an assessment of the Proposed Development's effects on Traffic and Movement.

7.5. WASTE AND MATERIALS

Introduction

7.5.1. The need for the waste and materials assessment has been considered by Velocity Transport Planning.

7.5.2. A separate Outline Site Waste Management Plan (SWMP) and Operational Waste Management Strategy (OWMS) will be prepared by Velocity Transport Planning and submitted as standalone documents as part of the DCO Application.

7.5.3. Following a review of the baseline conditions at the Site and surrounding area, and consideration of the Proposed Development and associated waste control measures, this topic is proposed to be '**scoped out**' of the EIA.

Baseline Conditions

7.5.4. The Main Development Area of the Site comprises approximately 22.3 hectares of land north of the M40 motorway and south of the A40 Oxford Road, currently operated by Veolia for landfilling of inert building waste. The Site benefits from excellent strategic connectivity while being located away from sensitive local road networks. The landfill activity is regulated under Permit EPR/XP3636KW held by Veolia ES Landfill Limited. Regardless of future redevelopment, landfill activity has now ceased (in that no further waste will be accepted on site), though the existing EA licence remains active to facilitate the ongoing maintenance and management requirements of the licence.

7.5.5. Additional permitted waste activities are conducted on site associated with generation of energy from landfill gas (EPR/HP3630LN) and as a Materials Recycling Facility (MRF) for non-hazardous soils and stones (DB3437RJ) both by separate operators.

7.5.6. The M40 Motorway runs immediately south of the Site boundary, providing strategic east-west connectivity with Junction 2 (Beaconsfield) located approximately 2km to the east. The A40 Oxford Road forms a major trunk road along the northern site boundary, providing direct connectivity between the M40 and the central London/Oxford corridor.

7.5.7. A review of the Buckinghamshire Minerals and Waste Local Plan[269] (2019) (MWLP) indicates that Buckinghamshire has a number of facilities for the management of waste, accepting Municipal, Commercial and Industrial (C&I), Construction, Demolition and Excavation (CD&E) and hazardous waste that are expected to continue to operate during the plan period that extends to 2036.

7.5.8. Table 71 details the existing waste facilities within Buckinghamshire as of 2016 (the most recent period for publicly available information).

Table 71 Permitted Waste Management Capacity within Buckinghamshire Area

Waste Hierarchy Management Level	Management Method	Waste Stream	Permitted Capacity (Mtpa) / Remaining Voidspace (Mt)
Preparing for Reuse and Recycling	HRC	Municipal	0.11 Mtpa
	Transfer	Municipal and C&I	0.92 Mtpa
	MRF	Municipal and C&I	0.08 Mtpa
	WEEE	C&I	0.004 Mtpa
	Metal Recycling and ELV	C&I and CD&E	0.48 Mtpa
	Inert Transfer	CD&E	0.39 Mtpa
	Inert Recycling	CD&E	0.10 Mtpa
	IBA Processing	Residues (EfW – Municipal and C&I)	0.075 Mtpa
	Composting	Municipal and C&I	0.09 Mtpa

[269] *Buckinghamshire Minerals and Waste Local Plan https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/buckinghamshire-minerals-and-waste-local-plan-2016-2036_yiYUGSb.pdf*

Waste Hierarchy Management Level	Management Method	Waste Stream	Permitted Capacity (Mtpa) / Remaining Voidspace (Mt)
Other Recovery	EfW	Municipal and C&I	0.30 Mtpa
	AD	Municipal and C&I	0.10 Mtpa
	Inert Recovery (also captured under inert landfill)	CD&E	0.35 Mtpa 3.48 Mt (remaining voidspace)
Disposal	Non-Hazardous Landfill	Municipal, C&I and CD&E	0.94 Mtpa 7.95 Mt (remaining Voidspace)
	Inert Landfill (also captured under inert recovery)	CD&E	0.35 Mtpa 3.48 Mt (remaining voidspace)
	Hazardous Landfill	Hazardous	0.02 Mtpa

7.5.9. It is estimated that, by the end of the Local Plan period (2036) there may be a need for an additional 0.20Mtpa of (non-inert) recycling, 0.51Mtpa of inert recycling, 0.13Mtpa of composting and 0.09Mtpa of inert recovery and/or landfill) capacity. This capacity will need to be taken up by extensions to existing facilities and new facilities.

7.5.10. The MWLP sets out that net self-sufficiency will be achieved through the provision of the waste management capacity needs of Buckinghamshire. The capacity will be delivered through existing commitments, extensions to existing commitments and new facilities.

7.5.11. Table 72 below sets out the waste management capacity needs for Buckinghamshire to the end of the Local Plan period.

Table 72 Waste Management Capacity Needs for Buckinghamshire to the End of the Local Plan

Waste Hierarchy Management Level	Management Method and Waste Stream	Total Waste Management Capacity Needs (Million Tonnes)		
		2026	2031	2036
Preparing for Reuse and Recycling	Recycling Municipal and C&I	0.465	0.516	0.541
	Composting Municipal and C&I	0.121	0.133	0.139
	Inert Recycling CD&E	0.679	0.679	0.679
Other Recovery	Recovery/Treatment (e.g. EfW) Municipal and C&I	0.228	0.241	0.247
	Inert Recovery (also captures inert landfill) CD&E	0.093	0.093	0.093
	Hazardous Recovery Hazardous	0.0103	0.0108	0.0113
	Hazardous Treatment Hazardous	0.0018	0.0019	0.0020
Disposal	Non-Hazardous Landfill Municipal, C&I and CD&E	0.243	0.212	0.220
	Inert Landfill (also captures inert recovery)	0.093	0.093	0.093
	Hazardous Landfill	0.0028	0.0029	0.0031

7.5.12. The MWLP strategy for providing sufficient opportunities to meet Buckinghamshire's future needs is to identify an overall spatial strategy that identifies areas of focus for new or enhanced waste management that seek to deliver the indicative capacity needs and reflect the key growth points in order to support

the development of sustainable communities. Proposals for sites coming forward within these areas would need to demonstrate compliance with relevant MWLP policies

Justification for Scoping Out

7.5.13. Based on a review of baseline conditions and characteristics of the Proposed Development, it is concluded that there would be no likely significant effects as a result of the Proposed Development in relation to Waste and Materials. This justification has considered the requirements of PINS Advice Note 7, specifically paragraph 5.11.

Materials

Enabling and Construction

7.5.14. During construction, it is anticipated that where possible materials for the Proposed Development will be sourced from:

a. The Site, In Terms Of Any 'Waste For Recovery'[270]; And

b. Within Buckinghamshire And Greater London.

7.5.15. In accordance with IEMA's guide to Materials and Waste in Environmental Impact Assessment[271], materials are considered to be sensitive receptors and include *"physical resources that are used across the lifecycle of a development. Examples include concrete, aggregate, asphalt, bricks, ballast, mortar, glass and timber."*

7.5.16. The key material components that the buildings within the Proposed Development will likely be constructed from include:

a. Concrete in substructures;

b. Frame/upper floors in steel;

c. Frame/upper floors in concrete;

d. Façade cladding (e.g. stone, brick, tiles, metal, wood, concrete, glass, composite material);

e. Glazing (glass);

f. Roof finishes (e.g. asphalt, wood, metal, stone, clay, slate, glass and plastic, plastic liquid coatings);

g. Internal walls (e.g. brick, timber, steel, plasterboard, timber, fibreboard, insulation);

h. Ceilings (e.g. gypsum, plasterboard, metal, tiles, wood, drywall);

i. Wall and floor finishes (e.g. carpet, linoleum / vinyl, wood, tiles, stone, concrete, drywall); and

j. Hard and soft landscaping (e.g. soils, mulch, sands, stone paving slabs, wood, tarmac, stones and gravel etc.).

Mitigation

7.5.17. IEMA's guide to Materials and Waste in Environmental Impact Assessment refers to different types of mitigation measures to prevent or reduce adverse effects relating to materials and waste:

a. Primary mitigation measures: are *"an intrinsic part of the development, and do not require additional action to be taken"*[272]; for example, choosing to refurbish an existing building, rather than demolish it;

b. Secondary mitigation measures: are "*foreseeable actions brought out by the environmental assessment process, and that have not previously been achieved through primary and tertiary*

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[270] *Defined by IEMA's guide to Materials and Waste in Environmental Impact Assessment (2020) as 'waste' materials that go through an acceptable recovery process, to lose their status as 'waste' and become materials for other uses.*

[271] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment.*

[272] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment (page 19).*

mechanisms"[273]; for example, the implementation of a Procurements Strategy or Construction Environmental Management Plan (CEMP) (or equivalent) Site Waste Management Plan (SWMP) and Circular Economy Statement; and

c. Tertiary mitigation measures: are "*those that are in place with or without the iterative EIA process*" and include "*those that will be undertaken to meet existing legislative requirements, of those that are considered standard practices used to manage commonly occurring environmental effects*" [274]; for example, sending waste to active and permitted waste management sites, which have to adhere to the requirements of the Environmental Permitting Regulations[275], whereby carrying out certain types of activity (such as receiving waste for landfill) requires an active and permitted waste management site to hold an environmental permit to do so.

7.5.18. In view of the above, measures will be implemented to reduce the quantity of materials used during the construction of the Proposed Development. The key construction materials are expected to be:

a. Recovered from off-site sources (e.g. donor sites) as far as reasonably practicable;

b. Sourced locally as far as reasonably practicable;

c. Sourced in accordance with The Green Guide to Specification[276] to reduce the environmental impact of the construction of the Proposed Development by an informed and responsible selection of construction materials and components (for example, for the floors, roofs, walls, windows, insulation and landscaping of the Proposed Development);

d. Reclaimed or recycled materials, where feasible;

e. Sourced via a defined procurement strategy, which will select materials with a percentage of recyclable content where feasible;

f. Selected in agreement with Buckinghamshire Council;

g. Managed via the implementation of a CEMP (or equivalent), which will include measures such as:

   ii. A 'just-in-time' material delivery system to avoid materials being stockpiled and spoiled during bad weather;

   iii. Consideration of material quantity requirement to avoid over-ordering and generation of waste materials; and

   iv. Designated storage area for new building materials, to reduce the risk of damage / spoiling.

7.5.19. Measures such as the above shall be implemented pursuant to Development Consent Order requirements; therefore, it is considered that significant adverse effects of the enabling and construction of the Proposed Development on materials would be unlikely.

7.5.20. On the basis of the above, it is proposed to scope out an assessment of enabling and construction effects on materials. The PEIR and ES will nonetheless set out:

a. The approximate type and quantities / volumes of materials that are anticipated to be required for the construction of the Proposed Development;

b. Details of the procurement strategy;

c. The sustainability credentials of materials (if known); and

d. The commitment to undertaking the measures outlined above.

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[273] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment (page 27).*
[274] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment (page 20).*
[275] *The Environmental Permitting (England and Wales) Regulations 2016*
[276] *BRE, (2009); The Green Guide to Specification, Fourth Edition.*

Operational Development

7.5.21. The materials anticipated to be required during the operation of the Proposed Development are expected to be primarily used for maintenance purposes. Given that: 1) the quantities of materials to be used would be far less than that used during the enabling and construction of the Proposed Development; and 2) the scale and massing of the development (and so the expected maintenance required) would be typical for a commercial / industrial development of this size, it is considered that significant adverse effects on materials due to the ongoing operation / use of the Proposed Development would be unlikely.

7.5.22. On the basis of the above, it is proposed to scope out an assessment of operational effects on materials.

Decarbonisation Readiness

7.5.23. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion. This is not expected to have the potential to result in significant effects in relation to materials, with the implementation of the above mitigation measures.

Waste

Enabling Works and Construction

7.5.24. Owing to the nature of existing uses there are a limited number of structures on the Site, the Proposed Development is not anticipated at this stage to produce significant volumes of excavation or enabling waste. A review of the strategy to retention and removal from site is underway as part of the design development process, and this will be reviewed as part of the preparation of the PEIR and ES to confirm. The sustainable management of construction waste will be undertaken in line with the Council's planning policy. A full cut and fill exercise will be conducted in conjunction with a physical and chemical testing regime to limit any removal of excavation material from site where possible. Some of the areas of existing historic landfill will be excavated, and site investigations will be conducted to confirm the extent of the historic landfill cells within the development zone. These works will be conducted under an Environmental Permit, to be issued by the Environment Agency (EA).

7.5.25. Estimated volumes of waste materials arising during the enabling and construction, as well as any specific mitigatory measures related to management of any wastes arising from the excavation process, will be presented within the PEIR and ES.

7.5.26. The mitigation measures that will be employed during the enabling works and construction phases to reduce the potential impact of waste and recycling include:

a. A suite of testing to identify on-site contamination and subsequent methodologies to segregate material accordingly;

b. The re-use of the excavated material will be further assessed prior to the commencement of development and a Materials Management Plan (MMP) prepared for the Site that will be subject to a DCO requirement. Any re-use of excavated materials will be subject to an Environmental Permit; and

c. Minimisation of stockpiled construction materials.

7.5.27. A CEMP and SWMP will be prepared and implemented throughout the enabling works and construction phases to include construction waste reduction and management objectives, pursuant to any DCO requirements and EA Permits. Providing the measures included within the EA Permits, CEMP and SWMP are enforced and adhered to via a requirement of the DCO, significant adverse effects on sensitive receptors, pertaining to the quantity and composition of waste during the enabling works and construction phase, are considered unlikely. Measures including the following (non-exhaustive) are expected to be included within the EA Permit, CEMP and SWMP:

a. Control noise, vibration, dust, and air emissions;

b. Manage water and drainage – prevent silt, spills, and runoff;

c. Protect soil, prevent erosion, and phase excavations;

d. Segregate, store, reuse, and recycle waste; dispose of residuals via licensed carriers;

e. Minimise waste at source – correct ordering, prefabrication, material reuse;

f. Handle hazardous substances and waste safely with bunding, spill kits, and consignment notes;

g. Protect biodiversity with exclusion zones, ecological monitoring, and sensitive scheduling;

h. Manage traffic and access with designated routes, signage, and delivery controls;

i. Maintain clear community liaison and complaints procedures;

j. Ensure workforce training, inductions, and ongoing monitoring for compliance; and

k. Keep accurate records of waste movements, environmental incidents, and performance review.

7.5.28. Further to the above, additional mitigation measures that will be implemented include, but are not limited to, the following:

a. The Applicant is committed to the re-use of a defined proportion of enabling and construction waste on-site for recovery, with the anticipated quantities of waste to be generated and reused set out in the PEIR and ES where known. Where previously landfilled waste is excavated, such materials may be re-used on-site, removed from site, or disposed of in accordance with relevant permits, legislation and guidance. Any re-use of enabling waste will be undertaken under an appropriate EA Environmental Permit where required, and any waste removed from the Site will be transported by licensed waste carriers to facilities holding the necessary Environmental Permits.

b. Should previously unidentified hazardous or contaminated materials be identified, works in the area will temporarily stop, and the materials will be removed and disposed of in line with relevant legislation and guidance e.g. The Control of Asbestos Regulations 2012, and Control of Substances Hazardous to Health Regulations (COSHH) 2002. Any waste removed will be transported by licensed waste carriers to sites with an appropriate Environmental Permit;

c. The setting of waste reduction targets and construction waste re-use / recycling targets prior to commencing works on-site and monitoring of such targets throughout the duration of the enabling and construction works; and

d. The implementation of waste segregation measures, whereby segregating the key / main waste streams, waste for recovery can be identified prior to leaving the Site.

7.5.29. These measures are expected to be secured through Development Consent Order requirements and, where relevant, Environmental Permitting.

Completed Development

7.5.30. The Proposed Development comprising an Energy Centre and Data Centre Campus would generate low levels of operational waste due to its function as infrastructure-led development. Activities associated with the operation of the Site would primarily relate to administration and maintenance. The nature of staffing infrastructure developments of this type does not typically produce high levels of waste.

7.5.31. Potential adverse effects from the management of waste for the completed Proposed Development will be avoided through effective design, which would be submitted for approval at the detailed design stage, which would be informed by guidance in:

a. Chiltern, Wycombe, and South Bucks District Council's 'Waste Management Planning Guide';

b. British Standard BS5906:2005 'Waste Management in Buildings – Code of Practice'; and

c. Engagement with the Council's recycling officer and contracts manager.

7.5.32. The mitigation measures that can be employed during the operational phase to reduce the potential impact of waste and recycling include:

a. An Operational Waste Management Strategy (OWMS) will be prepared and submitted as part of the DCO application:

   i. This document will summarise the types and volumes of waste expected to be generated by the Proposed Development once occupied, as well as the methodologies for storage and collection of waste for commercial users;

   ii. The strategy will identify how waste will be reduced, minimised and recycled in accordance with the waste hierarchy and relevant guidance;

b. Management of commercial and industrial waste will be the responsibility of the individual commercial occupiers who are expected to employ specialist contractors to undertake collections on their behalf;

c. The operators will manage all waste generated by the Proposed Development in accordance with the waste hierarchy; and

d. During the operation of the Proposed Development, it is anticipated that any waste for recovery or waste for disposal generated from the Site would be directed to active and permitted waste management sites within the area.

7.5.33. Once operational, the Proposed Development is expected to generate the following materials:

a. Residual waste;

b. Dry Mixed Recycling (DMR);

c. Food waste;

d. Bulky waste;

e. Waste Electrical and Electronic Equipment (WEEE); and

f. Fit-out waste (from refurbishment).

7.5.34. Waste generated by commercial and industrial uses will be the responsibility of the producer to arrange suitable storage and collection of waste streams. Storage requirements for commercial and industrial waste will be calculated in accordance with British Standard *BS5906:2005 Waste Management in Buildings – Code of Practice*[277].

7.5.35. Considering the low volumes of waste expected to be generated by the completed development, and the adherence to mitigation measures pursuant to DCO requirements, waste generated from the Proposed Development is not anticipated to cause strain to the council's available waste management facilities once operational.

7.5.36. Therefore, significant adverse effects on the local waste management infrastructure and processing or disposal capacity, resulting from the waste expected to be generated during the operation of the Proposed Development, are considered unlikely.

7.5.37. The above mitigation measures will be summarised within an ES, and are expected to be secured through Development Consent Order requirements, and where relevant Environmental Permitting.

Decarbonisation Readiness

7.5.38. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion. This is not expected to have the potential to result in significant effects in relation to waste, with the implementation of the above mitigation measures.

[277] *BSI, (2005); BS5906: 2005 Waste Management in Buildings – Code of Practice*

Conclusion

7.5.39. Engagement is yet to be undertaken with relevant bodies, including local authority waste officers and the Environment Agency, in relation to waste management arrangements and permitting requirements. This will be undertaken as required throughout the pre-application process.

7.5.40. Waste management infrastructure and material resources are recognised as sensitive receptors in principle. However, baseline evidence demonstrates that there is existing and planned waste management capacity within Buckinghamshire and the surrounding area, and that materials will be sourced through established and resilient supply chains. No particularly sensitive or constrained waste receptors have been identified that would be vulnerable to the anticipated impacts of the Proposed Development.

7.5.41. Relevant National Policy Statements have been considered, including requirements relating to resource efficiency, waste management, and application of the waste hierarchy. The Proposed Development responds to these requirements through embedded design measures and management plans. Given the limited scale of impacts and the effectiveness of the proposed mitigation, a detailed EIA assessment of Waste and Materials is not considered necessary.

As such, it is considered that the impact of the Proposed Development in relation to waste management will not be significant in EIA terms. Based on the above, it is proposed to **scope out** an assessment of the Proposed Development's effects on waste and materials.

7.6. WATER RESOURCES AND FLOOD RISK

Introduction

7.6.1. The need for assessment of Water Resources and Flood Risk has been considered by Terrell Ltd.

7.6.2. Following a review of the baseline conditions at the Site and surrounding area, this topic is proposed to be '**scoped out**' of the EIA.

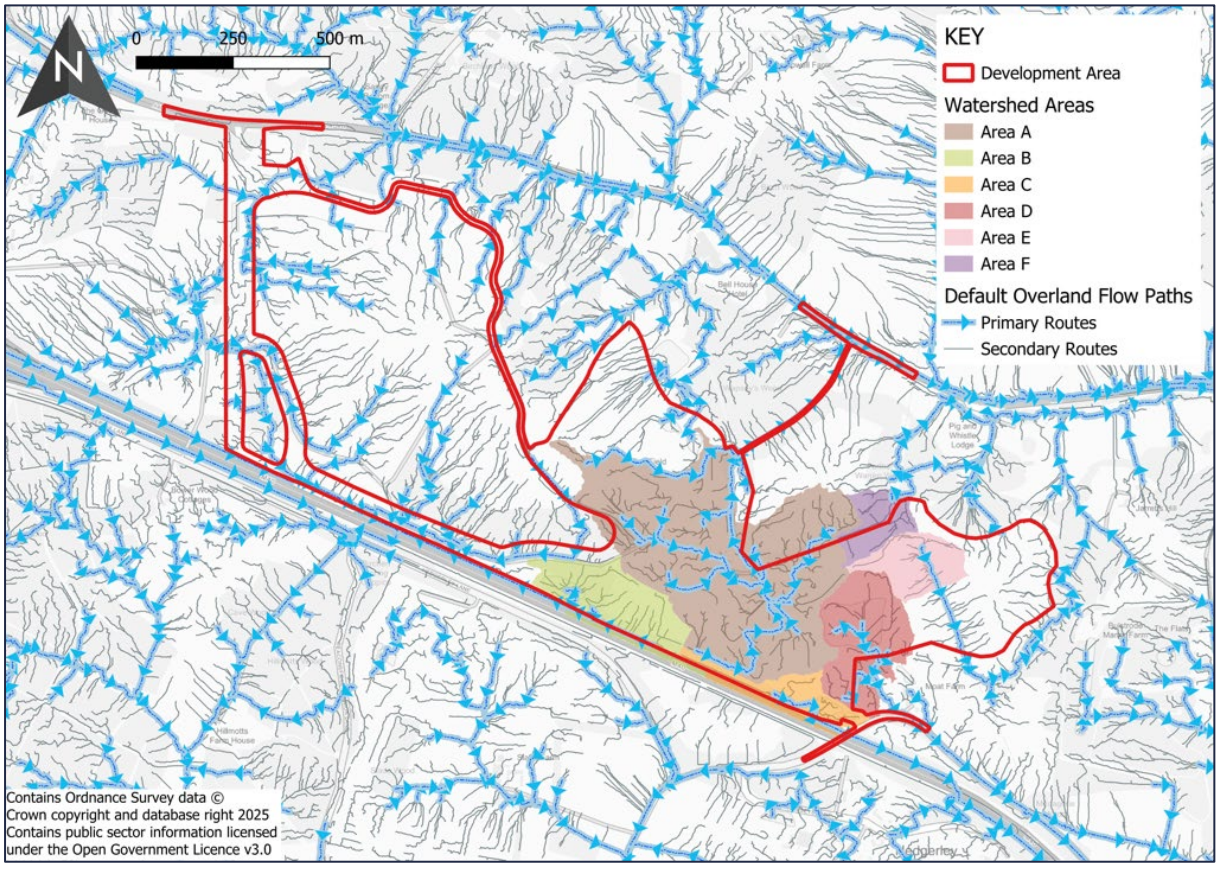
7.6.3. A Flood Risk Assessment (FRA), Drainage Strategy and Utilities Statement will be produced by Terrell Ltd and submitted for the Proposed Development as a standalone DCO application deliverable.

Baseline Conditions

Study Area

7.6.4. For both the current and proposed site uses, the Study Area will be limited to the surface water catchment area influencing the Site shown in Figure 23 (reflecting the extent of the Main Development Area).

Figure 23 Surface Water Catchment Area Influencing the Site

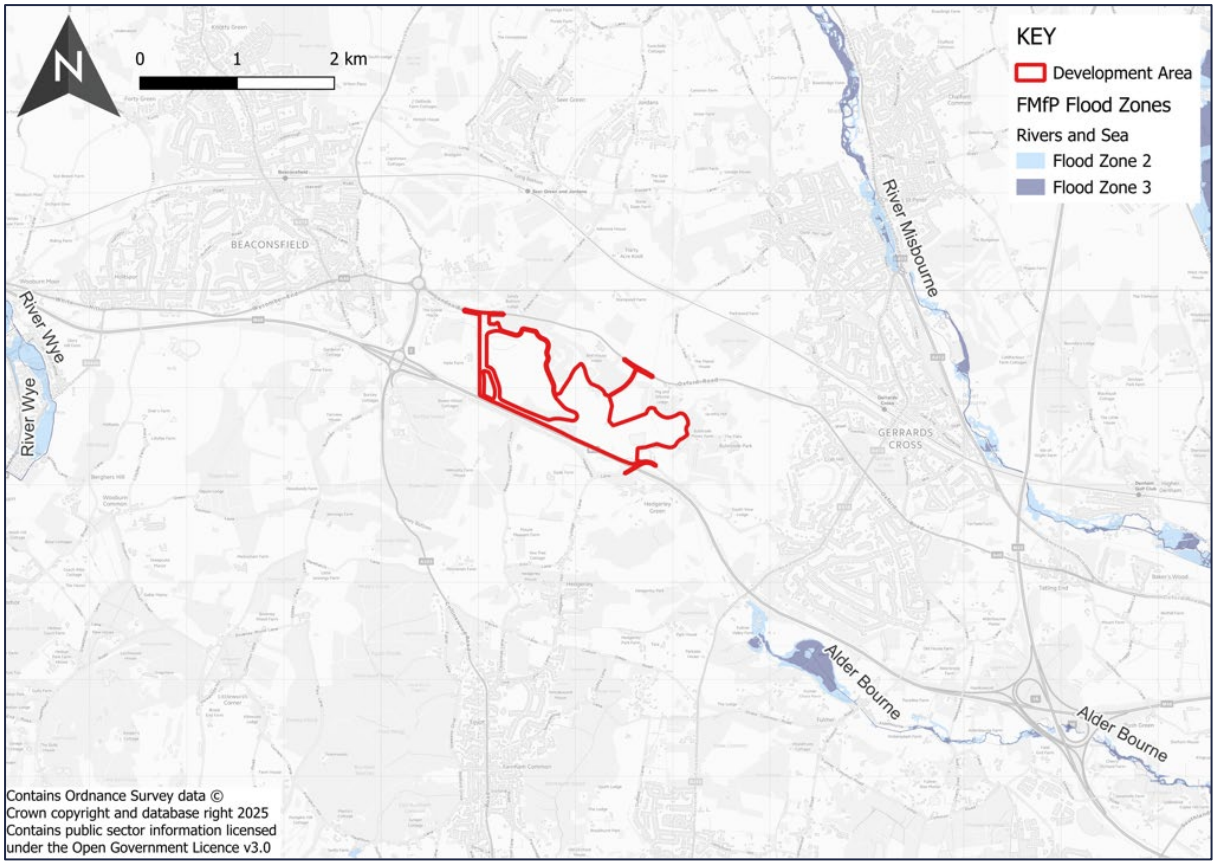


Current Baseline Conditions

Fluvial (Rivers and Seas)

7.6.5. The Site is not within the Environment Agency's (EA) Flood Map for Planning Flood Zones 2 or 3 and so it is deemed to be within Flood Zone 1 (see Figure 24). This is defined as 'land having a less than 1 in 1,000 annual probability of river or sea flooding' and the Proposed Development area can therefore be considered to have a low probability of fluvial flooding.

Figure 24 EA Flood Map for Planning - Flood Zones[278]



Pluvial (Surface Water)

7.6.6. The EA's Long-Term Flood Risk Map shows the Risk of Flooding from Surface Water (RoFSW) and indicates localised areas at risk of flooding within the Proposed Development area for both current day (Figure 25) and climate change (Figure 26) scenarios (capturing a higher rainfall amount under a future climate scenario). This also includes some localised areas at risk of high, medium and low flooding.

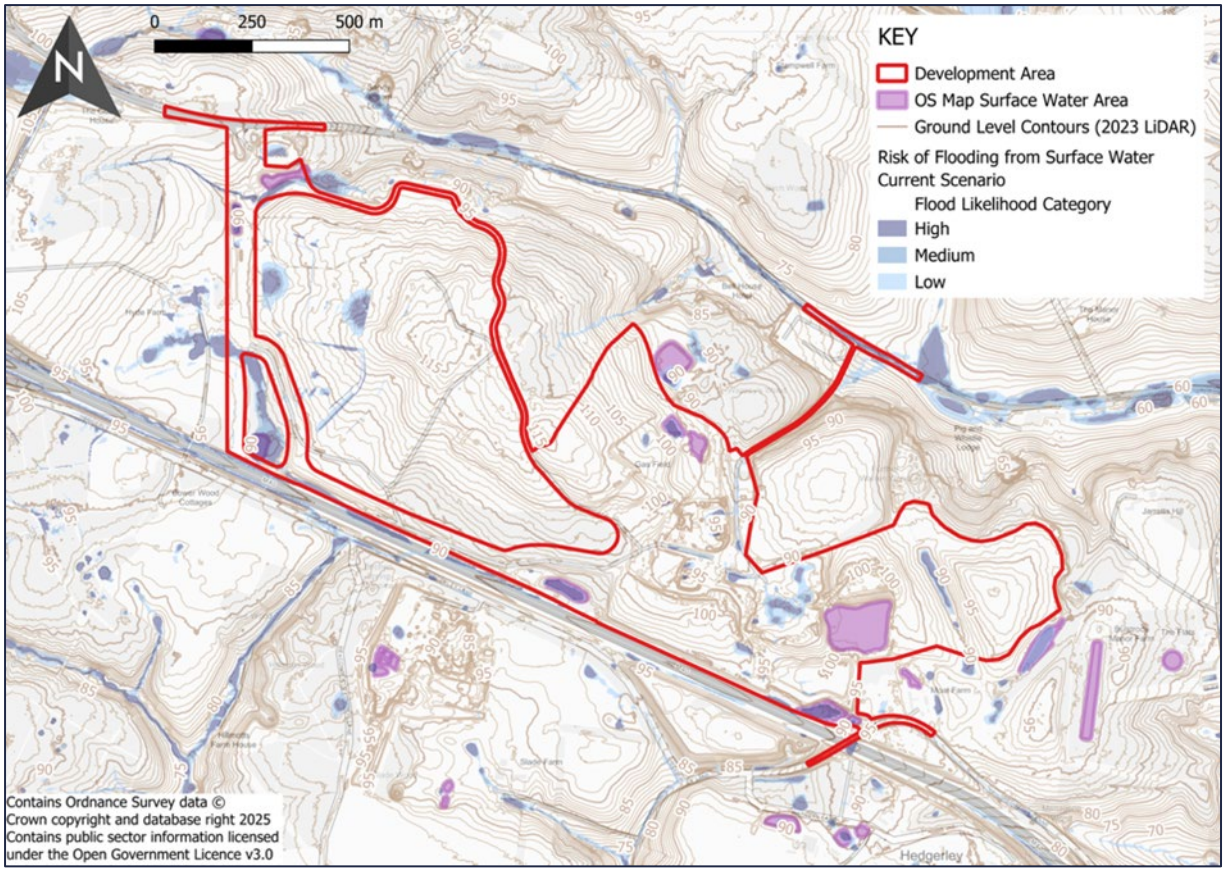
7.6.7. The map at Figure 25 also shows ground level contours based on LiDAR data[279] obtained from DEFRA's Data Services Platform. Whilst the RoFSW dataset has recently been published, the hydraulic modelling underpinning it uses a Digital Terrain Model (DTM) based on the EA's Integrated Height Model (IHM) 2019. Therefore, the areas at risk of surface water flooding on the latest published mapping only provides a snapshot of flood risk relating to the terrain that was present at the time of survey for the 2019 IHM, which may not be representative of the current landform due to the stockpiling of restoration soils by the landowner as part of the existing landfill permit requirements, as is apparent from inspection.

7.6.8. There are 10 existing ponds currently within the Site boundary. These comprise of permanent and ephemeral ponds of various sizes.

[278] *Flood Zones dataset obtained from https://environment.data.gov.uk/ Publication date 25 March 2025, Revision date 23 May 2025.*

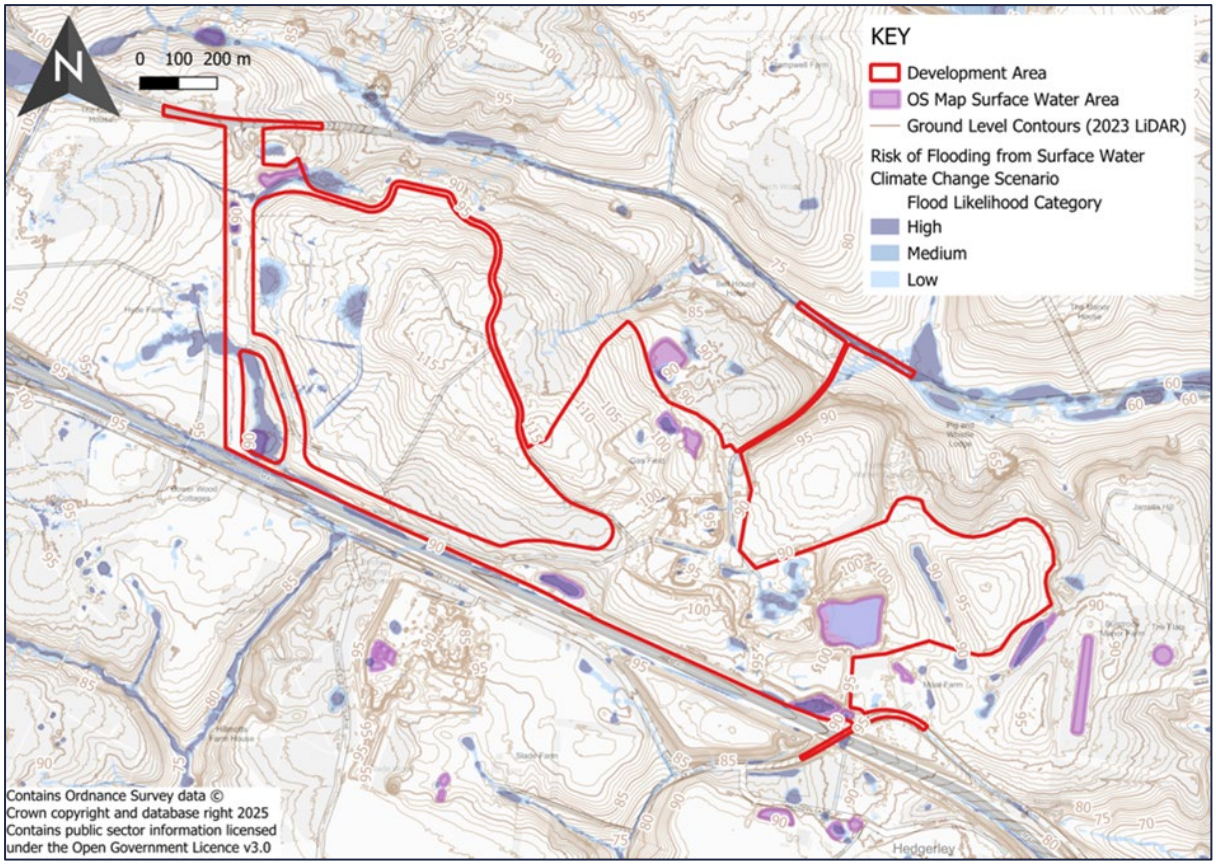
[279] *File Reference, DTM_SU9585_P_12755_20230402_20230403, Phase 2 national lidar programme survey, flown between 2 Feb 2023 and 4 Feb 2023.*

Figure 25 Long-Term Flood Risk Map – RoFSW - Current Scenario[280]



[280] *Risk of Flooding from Surface Water – Current Day dataset obtained from https://environment.data.gov.uk/ Publication date 28 January 2025, Revision date 30 October 2024. Accessed: 13 November 2025.*

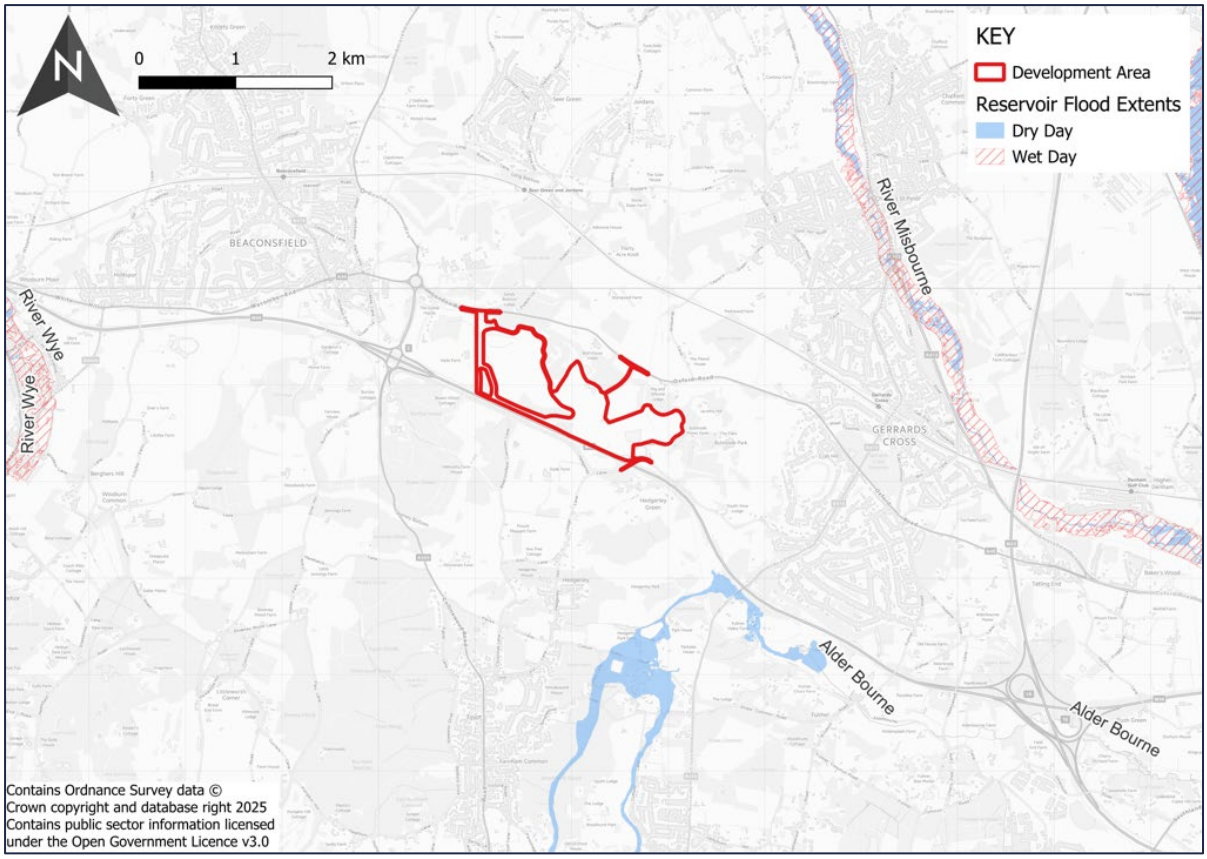
Figure 26 Long-Term Flood Risk Map – RoFSW – Climate Change Scenario



Reservoir

7.6.9. The Long-Term Flood Risk Map for Reservoir Flooding (Figure 27) does not show the Site to be in the extent of flooding that could occur in the event of breach failure of a reservoir. This is considered to be the largest area that might be flooded if a reservoir were to fail and release the water it holds. Since this is a prediction of a credible worst-case scenario, it's unlikely that any actual flood would be this large.

Figure 27 Long-Term Flood Risk Map - Reservoir[281]



Groundwater

7.6.10. British Geological Survey (BGS) maps do not record superficial deposits within the Main Development Area and instead show the Quarry / Landfill site as '*Worked Ground (Undivided) – Void*'. Superficial deposits located within the west of the Site boundary (although outside of the Main Development Area) are recorded as '*Gerrards Cross Gravel - Sand and Gravel*'. 'BGS maps record the underlying bedrock geology as '*Lambeth Group - Clay, Silt and Sand*'.

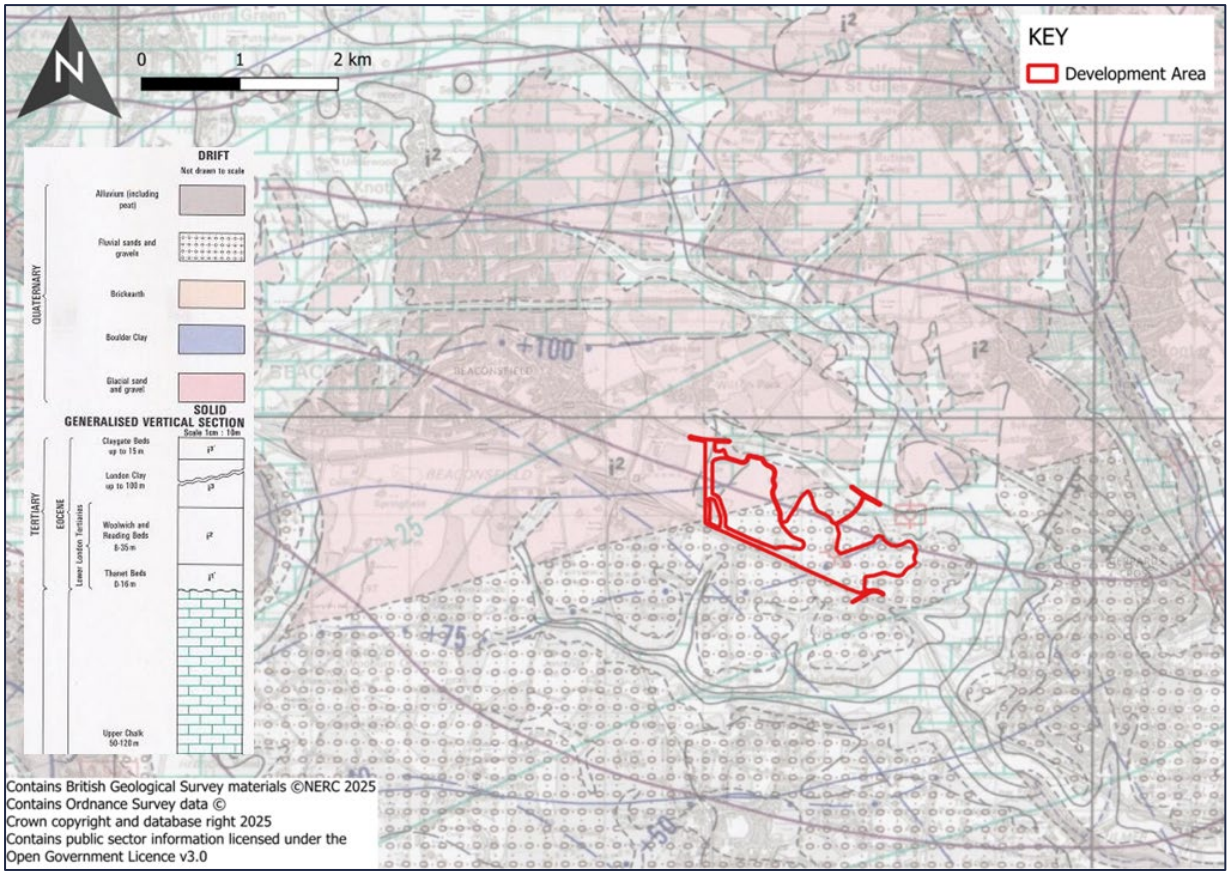
7.6.11. Lambeth Group is designated as a 'Secondary A' aquifer deemed to comprise 'Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers'. The bedrock aquifer has a 'high' groundwater vulnerability status. The Lambeth Group is described by the BGS as a 'Low productivity aquifer Summary: Variable sequence of clays, shell beds, fine sands, silts and pebble beds giving low yields. Sometimes in hydraulic continuity with underlying Chalk aquifer'.

7.6.12. The BGS Hydrogeological Map of the Area Between Cambridge and Maidenhead provides information on groundwater levels via contours on the potentiometric surface of the Chalk (and Upper Greensand). An extract is shown at Figure 28 showing the Proposed Development area extents for context. The map identifies the approximate position of a '*bore from which water is extracted for gravel washing*', which may relate to BGS borehole SU98NE133 (refer to Figure 28).

7.6.13. The groundwater level contours suggest a level of approx. 48.7m AOD within the Site. This represents a snapshot of groundwater levels in the autumn of 1976, which is when the mapping data was released, therefore comprising the most up-to-date record of groundwater levels across the Site.

[281] *Reservoir Flood Extents, Dry Day and Wet Day (National) datasets obtained from https://environment.data.gov.uk/ Publication date N/A, Revision date 10 June 2025.*

Figure 28 BGS Hydrogeological Map of the Area Between Cambridge and Maidenhead

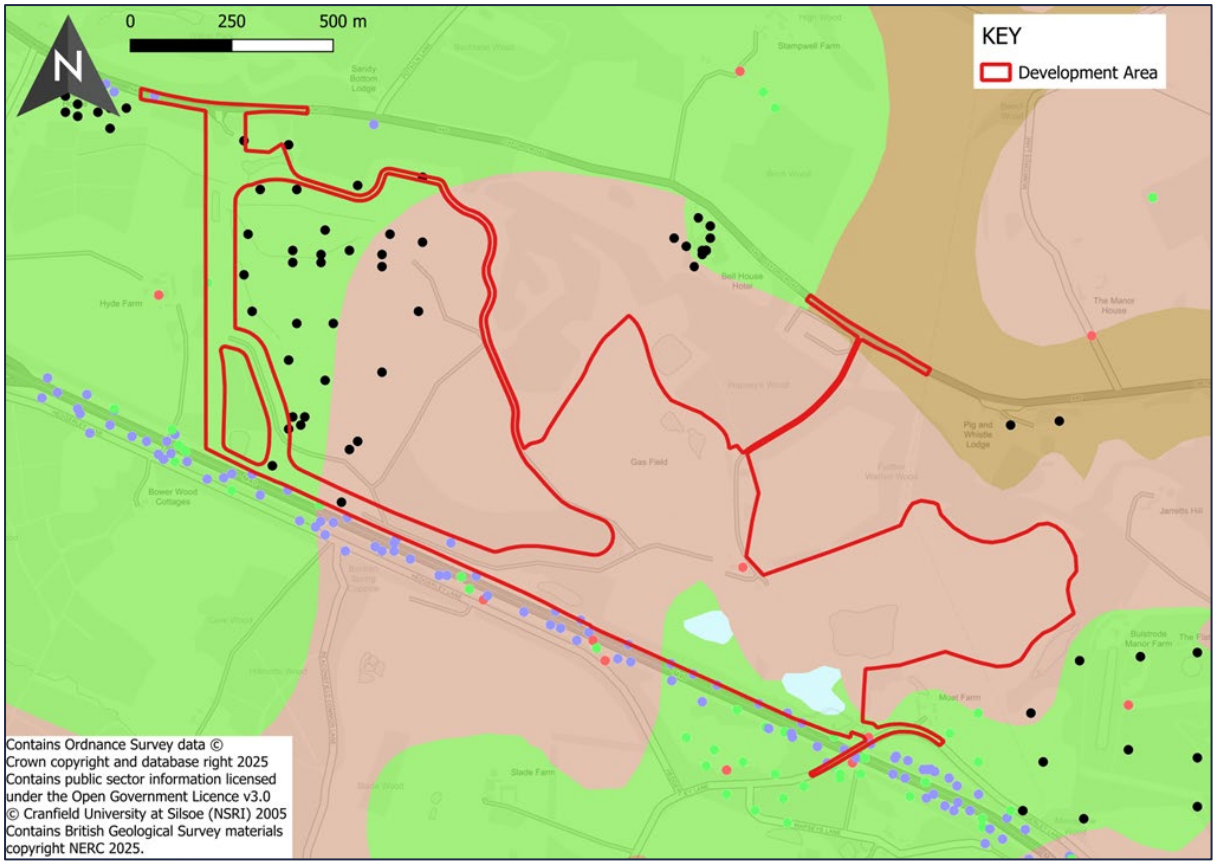


7.6.14. The Site is located within groundwater source protection zone 3 (total catchment) deemed to be "the area around a supply source within which all the groundwater ends up at the abstraction point. This is the point from where the water is taken. This could extend some distance from the source point"[282].

7.6.15. Soilscape mapping shows The Proposed Development area to primarily comprise '*freely draining slightly acid loamy soils*' draining to *'local groundwater and rivers*'. The central and south-eastern portion of the Proposed Development area are shown with a soil type of '*slowly permeable seasonally wet acid loamy and clayey soils*' with '*impeded drainage*' to '*stream network*'.

[282] *Environment Agency, 2024, Guidance: Groundwater Source Protection Zones (SPZs), https://www.gov.uk/guidance/groundwater-source-protection-zones-spzs. Accessed: October 2025.*

Figure 29 Soilscape Classes & BGS Borehole Record Locations

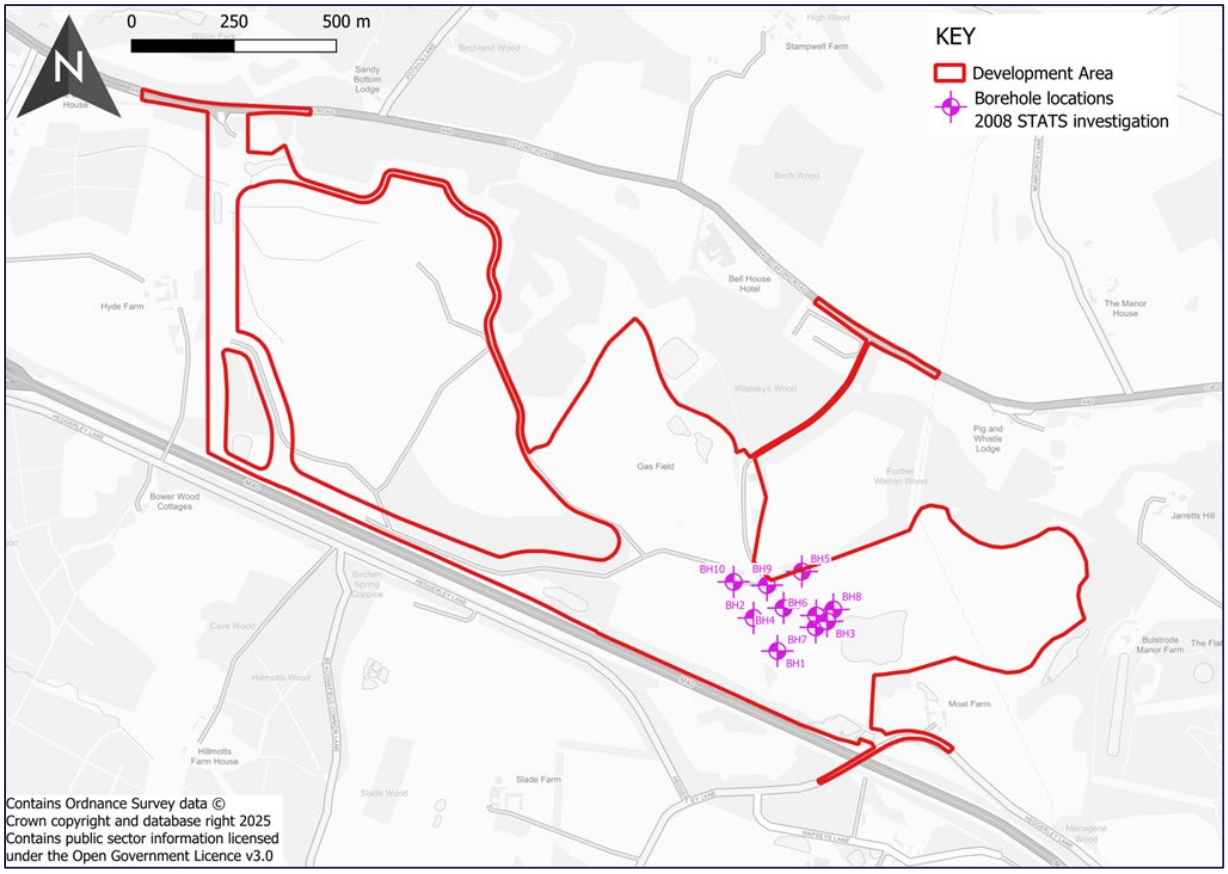


7.6.16. The BGS hold borehole records for several locations at and in proximity to the Site. A deep borehole (ref SU98NE133) at the central north of the development area relates to a historic wellpoint sunk for water abstraction in 1958 from a ground level of 298ft (90.83m) AOD. The log records water strikes at 135ft (41.15m) and 200ft (60.96m) to 239ft (72.85m) below well top level. The rest level of water is stated as 115ft (35.05m) below well top. The well top is taken to be ground level and therefore the rest water level is taken to be at circa 55.78m AOD. The ground level at this borehole position is circa 90.53m AOD based on 2023 LiDAR data. The strike and resting levels for groundwater at this borehole compare well with the groundwater level contours on the BGS Hydrogeological Map at Figure 28.

7.6.17. BGS boreholes alongside the southern edge of the Site boundary are mainly at shallow depth between 0m to 10m below ground level and do not record groundwater except in proximity to the pond at the south-eastern corner of the Site (ref SU98NE175 & SU98NE38). Groundwater levels are recorded at 88.62m AOD and approx. at 85.5m AOD in SU98NE175 and SU98NE38 respectively in 1993 and 1968. With reference to the BGS Hydrogeological Map at Figure 28 and groundwater observations at BGS borehole SU98NE133, it is inferred that the groundwater levels at these two boreholes do not relate to the groundwater table in the upper chalk strata and instead likely correspond to perched water potentially in hydraulic continuity with the nearby pond feature. This will be confirmed through future site investigation works.

7.6.18. Borehole logs from a ground investigation within the Proposed Development area have also been reviewed. Drilling was undertaken at 10 positions as shown on the plan at Figure 30. The ground levels recorded at each borehole are similar to the ground levels determined from 2023 LiDAR data at these positions. There were no groundwater observations in six of the boreholes which extended to depths of between 10m and 33.8m below ground level, corresponding to 81.90m AOD and 53.27m AOD respectively. Where groundwater was recorded (at BH2, BH3, BH7 and BH10) it was at shallow depth between 81.75m AOD and 92.78m AOD in Made Ground, clay and gravel soils. It is therefore considered that this is perched groundwater given the localised occurrence.

Figure 30 Borehole Record Locations – 2008 STATS Ground Investigation



7.6.19. Thames Water Asset Location Plans do not record public sewers within or in close proximity to the Proposed Development area. The risk of flooding from public sewers is therefore considered to be low to negligible.

Water Resources

7.6.20. An existing small mains cold water supply pipe runs into the Site from the west to feed existing facilities on and local to the Site, as currently operated by Veolia.

7.6.21. These current facilities include supplies to a methane processing plant and other associated messing facilities. There is no water consumption associated with the leachate treatment plant on-site.

Summary of Baseline Conditions

7.6.22. From a review of all the sources of flooding that could influence the Site (fluvial, pluvial, reservoir, groundwater and sewer) it has been determined that there is a low risk of flooding generally but that there are currently localised areas at medium to high risk of surface water flooding.

Future Baseline Conditions

7.6.23. The natural evolution of the Site would be as a remediated landfill site which would be likely to include the following elements:

a. Capping: installing a cap, typically made of synthetic liners or engineered soil barriers, over the waste mass which would prevent direct contact with the waste, minimises the infiltration of rainwater that could produce leachate, and control the emission of landfill gas;

b. Gas and leachate management: Landfill gas, primarily methane, is a natural byproduct of waste decomposition. A remediation strategy includes collection systems to capture and process this gas, preventing it from migrating off-site. Leachate, the liquid that drains through the waste, is

collected and treated to prevent the spread of contaminants into groundwater or surface water; and

c. Site monitoring: Regular, long-term monitoring of gas and water quality is a critical part of the remediation plan. This ensures the landfill remains safe and that any potential issues are identified and addressed in a timely manner.

7.6.24. The impacts of climate change on the Site have been considered specifically with regard to Environment Agency Mapping (as shown in Figure 26) and the relevant Local Authority guidance:

a. Chiltern and South Bucks Strategic Flood Risk Assessment (SFRA) Level 1 (2018); and

b. Chiltern and South Bucks Strategic Flood Risk Assessment (SFRA) Level 2 (2018).

7.6.25. The RoFSW climate change scenario uses the 'Central' allowance for the 2050s epoch (2040-2060). It is expected that the lifetime of the Proposed Development will extend beyond 2060 and that the associated extent of each flood likelihood category would increase to be greater than that shown at Figure 26. The extent and likelihood of flooding at a particular location is dependent on the contribution of runoff from adjacent areas which will vary depending on changes to land use in terms of level and permeability. However, given that the wider surrounding area will remain under the control of Veolia (as shown by the blue line boundary in Figure 1 of **Appendix 1: Figures**), and is the subject of the ongoing landscape restoration works. It is noted that an application to amend the restoration plan (through a Section 73 application) is currently pending, which would still require landscape restoration works to be completed. It is considered unlikely that changes to land use and permeability with the potential to impact flood risk would occur.

Justification for Scoping Out

Flood Risk and Drainage

7.6.26. It is expected that development proposals will significantly alter the terrain and therefore it is important that assessment of surface water run-on to and run-off from the development area is undertaken to inform the design of development drainage systems.

7.6.27. Topographical survey work is currently underway to confirm ground levels across the Site to inform the design of the Proposed Development. The relative level of groundwater to be determined from intrusive investigation and monitoring will be considered further throughout the design evolution process to ensure appropriate property protection and separation from drainage features is provided.

7.6.28. The potential for flood risk impacts during both construction and operation phases include:

a. Increased surface water runoff due to an increase in impermeable surfaces, which could impact future site users and occupiers downstream of the Site;

b. Alteration of natural drainage paths, which could impact future site users and occupiers downstream of the Site; and

c. Risk to property, infrastructure, and human health in the event of flooding, which could impact future site users and occupiers downstream of the Site.

7.6.29. However, the existing flood risk on-site is generally considered to be low (given the localised nature of the surface water flood risk), and the potential for flood risk impacts will be managed and mitigated by appropriate temporary drainage strategies during construction phases and implementation of the approved sustainable drainage strategy once complete and operational. Therefore, both during enabling and construction, and once complete and operational, flood risks will be mitigated such that no significant effects are anticipated.

Water Resources

7.6.30. Due to the use of air-cooled chillers, which do not rely on adiabatic or evaporative cooling, no water is proposed to be used for cooling purposes.

7.6.31. A separate sitewide external fire hydrant system will also be fed from the water supply. Due to the large tanks associated with the fire water and the fill rates required to ensure these are refilled within 8 hours in accordance with FM Global[283], the fire water has the potential to impact on maximum water consumption and associated utility connection sizes.

7.6.32. As the hydrant system will only be used in the event of a fire (i.e. in emergency situations only), any consumption associated with the fire hydrant system is considered to be a very rare occurrence and is not considered to impact the water demand of the Proposed Development. Water consumption will be from refill of the fire hydrant tanks and will be mitigated further as far as practicable through the use of raw water.

7.6.33. It is proposed that a new upgraded water supply is established from the local potable water network by the utility provider to feed the water requirements of the Data Centre Campus and Energy Centre as follows:

a. Data centres within the Campus will be provided with a potable water supply to feed the domestic facilities and fire water to each building; and

b. The Energy Centre will be provided with a potable water supply to feed the domestic facilities, fire water and process water to the facilities (noting that fire water provision could also be sourced from raw water sources).

Decarbonisation Readiness

7.6.34. As set out in *Section 3.6*, the Proposed Development will include provision for decarbonisation readiness of the Energy Centre, through Hydrogen Conversion. Hydrogen Conversion will not alter the approach to, nor the conclusions set out above in relation to flood risk and drainage, as the Site will be managed and mitigated by appropriate temporary drainage strategies during construction phases and implementation of the approved sustainable drainage strategy once complete and operational. When considering water consumption there will be no material change to levels of consumption, and no differences in consumption levels as a result of the adoption of Hydrogen Conversion. As such, there are no changes to the mitigation measures set out above.

Summary of Mitigation

7.6.35. A Flood Risk Assessment (FRA) and Drainage Strategy will be produced by Terrell Ltd and submitted for the Proposed Development as a standalone DCO application deliverable. The FRA will consider all sources of potential flooding in respect to the Proposed Development and identify appropriate mitigation to address potential on-site and off-site impacts.

7.6.36. The Drainage Strategy will set out appropriate attenuated drainage to be implemented to ensure downstream receptors are not adversely impacted, with reference to the required climate change allowances. Once the appropriate drainage scheme is implemented, the potential impacts are deemed to be appropriately mitigated.

7.6.37. Temporary drainage schemes will be implemented during the construction period to mirror the requirements of the permanent drainage strategy, ensuring downstream receptors are not adversely impacted.

7.6.38. Due to the nature of the proposals (i.e. cooling via air cooled chillers), there is no requirement to use water for cooling purposes.

7.6.39. The following mitigation measures are currently under consideration to help minimise water consumption to the proposed site, such as but not limited to:

a. The use of raw water to supply the fire hydrant system;

[283] *FM Global provide internationally recognised standards for industrial processes, in relation to risk prevention and safety.*

b. Air cooling is expected to be used, i.e. no water used for water cooling on data centres, as well as for the Energy Centre;

c. Passive Infrared Detection in toilets;

d. Low flow domestic taps on basins;

e. Low flow flush valves on toilets; and

f. Rainwater harvesting for irrigation purposes.

7.6.40. Potential impacts will be mitigated as part of the design process and in accordance with:

a. Gerrards Cross Parish Neighbourhood Development Plan 2017-2040 (2025);

b. Flood and Water Management Act 2010;

c. Environment Agency Flood Map for Planning;

d. Chiltern and South Bucks Strategic Flood Risk Assessment (SFRA) Level 1 (2018);

e. Chiltern and South Bucks Strategic Flood Risk Assessment (SFRA) Level 2 (2018);

f. National Planning Policy Framework (NPPF), Section on Flood Risk and Coastal Change;

g. Planning Practice Guidance for Flood Risk and Coastal Change (PPG-FRCC);

h. CIRIA C753 – The SuDS Manual;

i. National Framework for Water Resources;

j. Water Industry Act 1991;

k. Water Resources Act 1991;

l. Environment Agency (England);

m. Drinking Water Inspectorate (DWI);

n. Water Resources Management Plan Regulations 2007;

o. Environmental Assessment of Plans and Programmes Regulations 2004;

p. Water Environment (Water Framework Directive) (England and Wales) Regulations 2017; and

q. Water Supply (Water Quality) Regulations 2016.

Conclusion

7.6.41. As detailed, potential impacts and the proposed mitigation measures in regard to Flood Risk will be assessed and implemented via the Flood Risk Assessment (FRA) and Drainage Strategy submitted for the Proposed Development as a standalone DCO application deliverable.

7.6.42. With the aforementioned mitigation measures in place, it is considered that the impact of the Proposed Development in relation to Water Resources and Flood Risk will not be significant in EIA terms. Based on the above, it is proposed to **scope out** an assessment of the Proposed Development's effects on Water Resources and Flood Risk.

8. NEXT STEPS

8.1. Request for an EIA Scoping Opinion

8.1.1. This EIA Scoping Report constitutes a formal EIA Scoping Opinion Request to the Planning Inspectorate under Regulation 10(1) of the IP EIA Regulations 2017. The Planning Inspectorate, on behalf of the Secretary of State, is invited to consider the contents of this Report and provide their EIA Scoping Opinion within the 42-day period (as per the IP EIA Regulations 2017, Regulation 10(6)).

Appendix 1: Figures

Figure 1 Proposed Order Limits and Wider Ownership Boundary

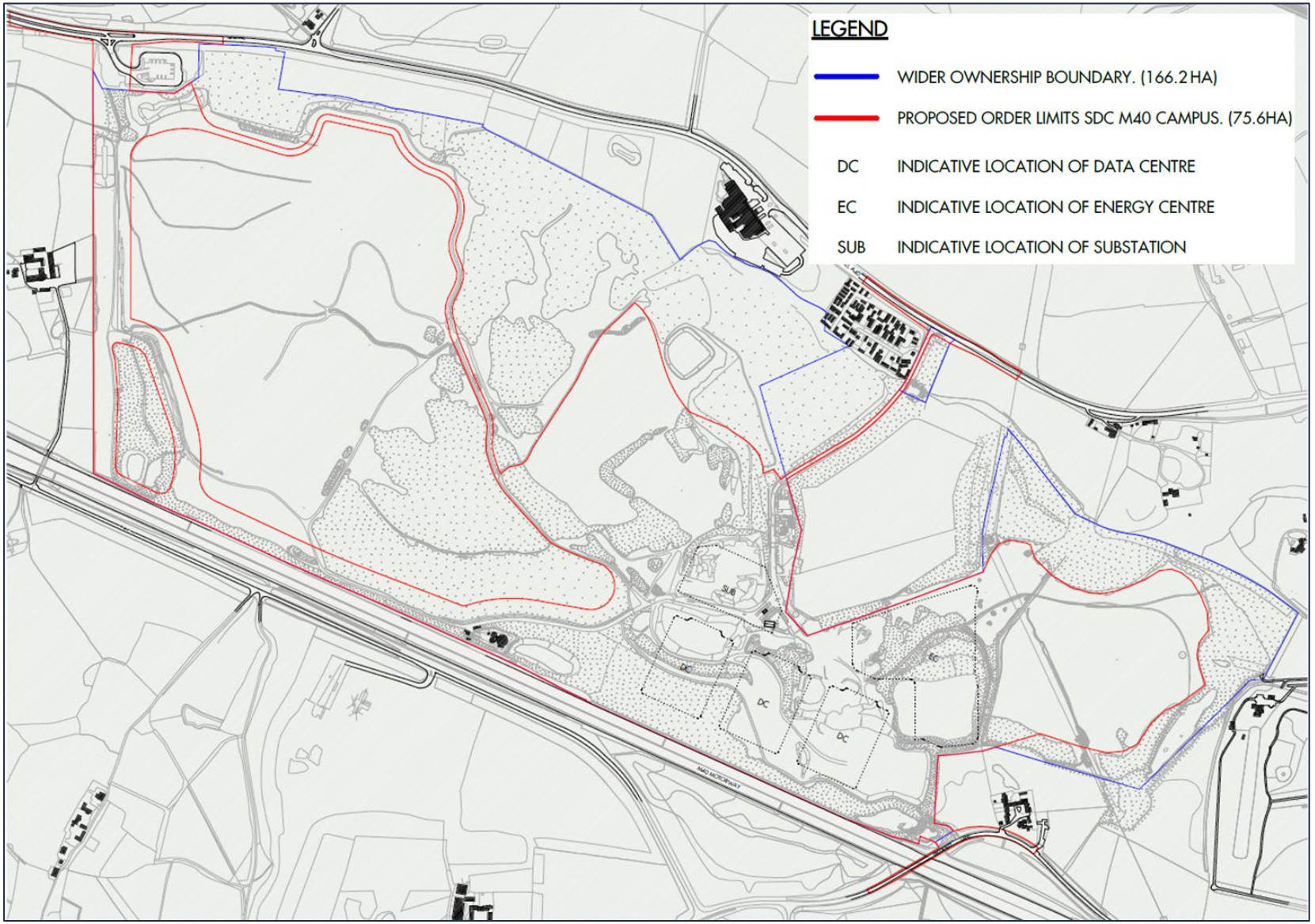


Figure 2 Site Location Plan – National Grid References

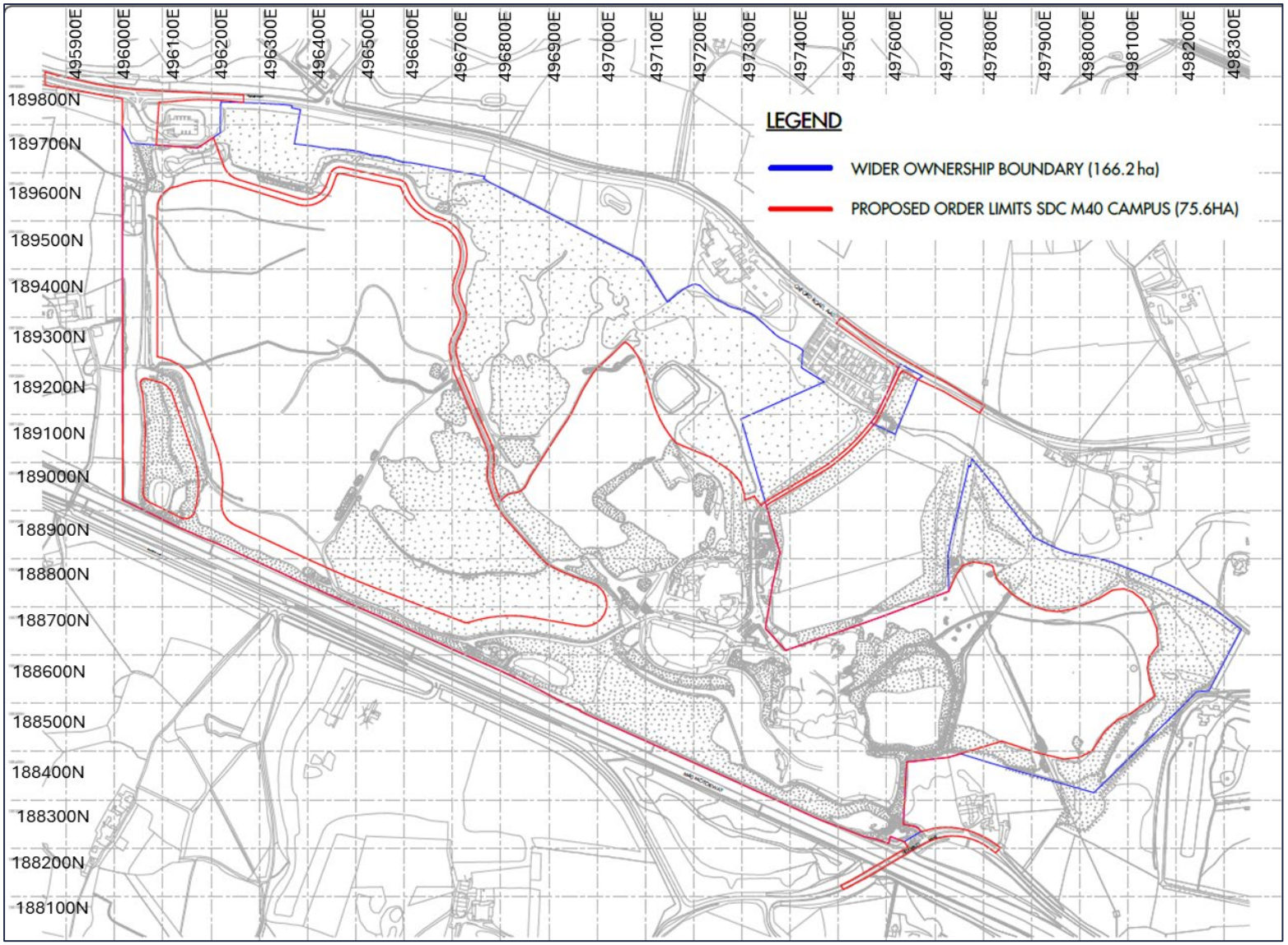


Figure 3 Site Location Map

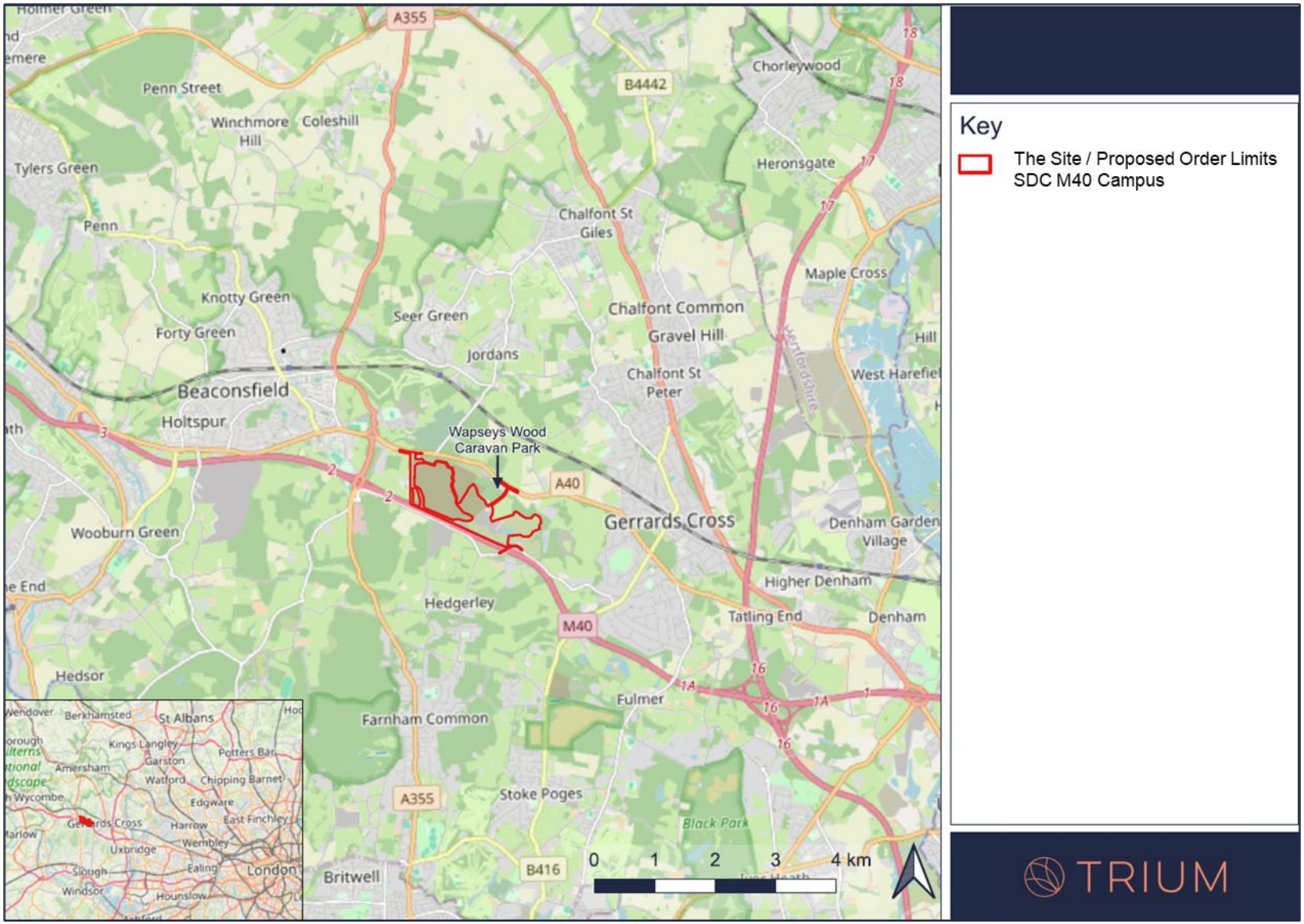


Figure 4 Existing Site Operations

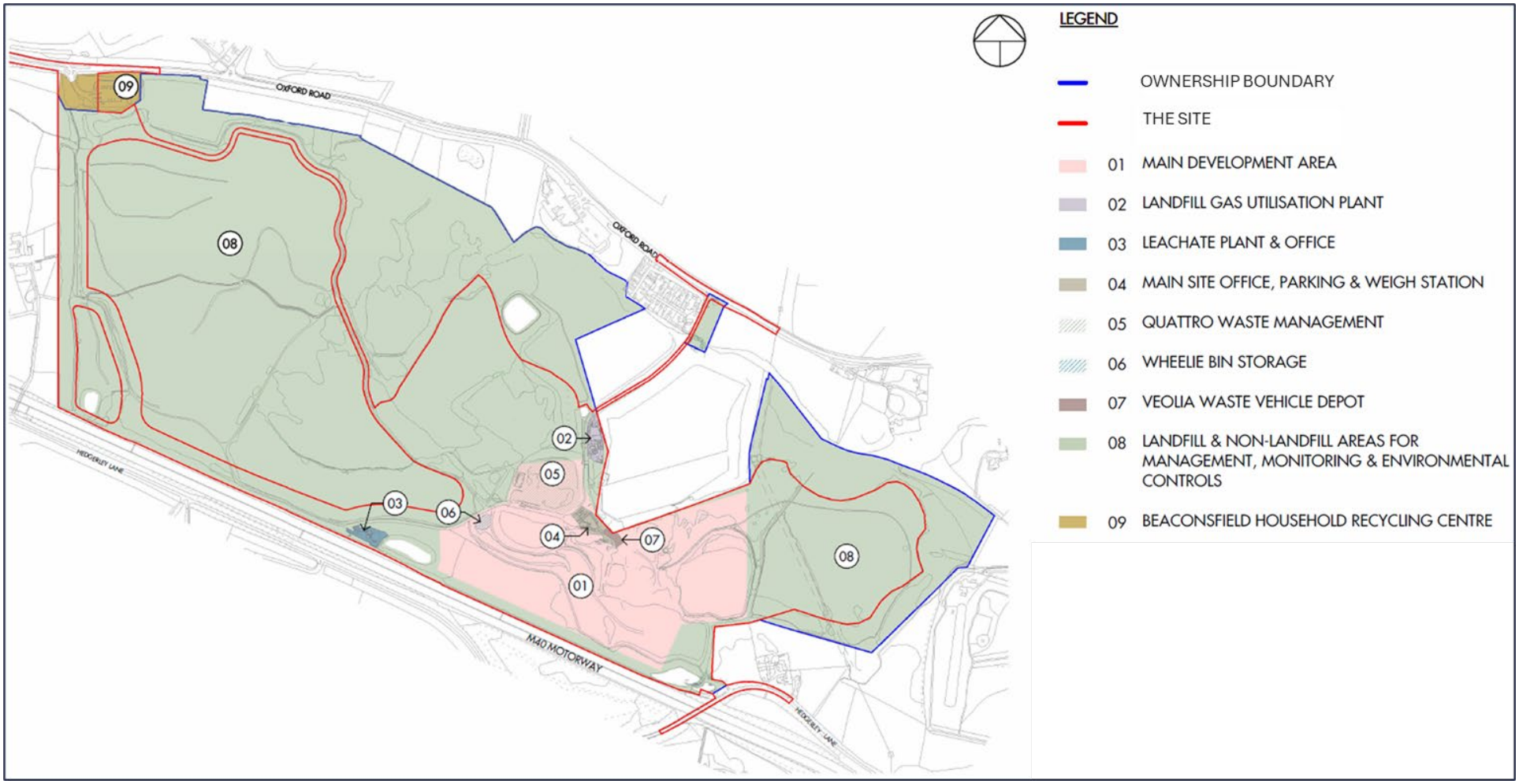


Figure 5 Surrounding Environmental Context Map

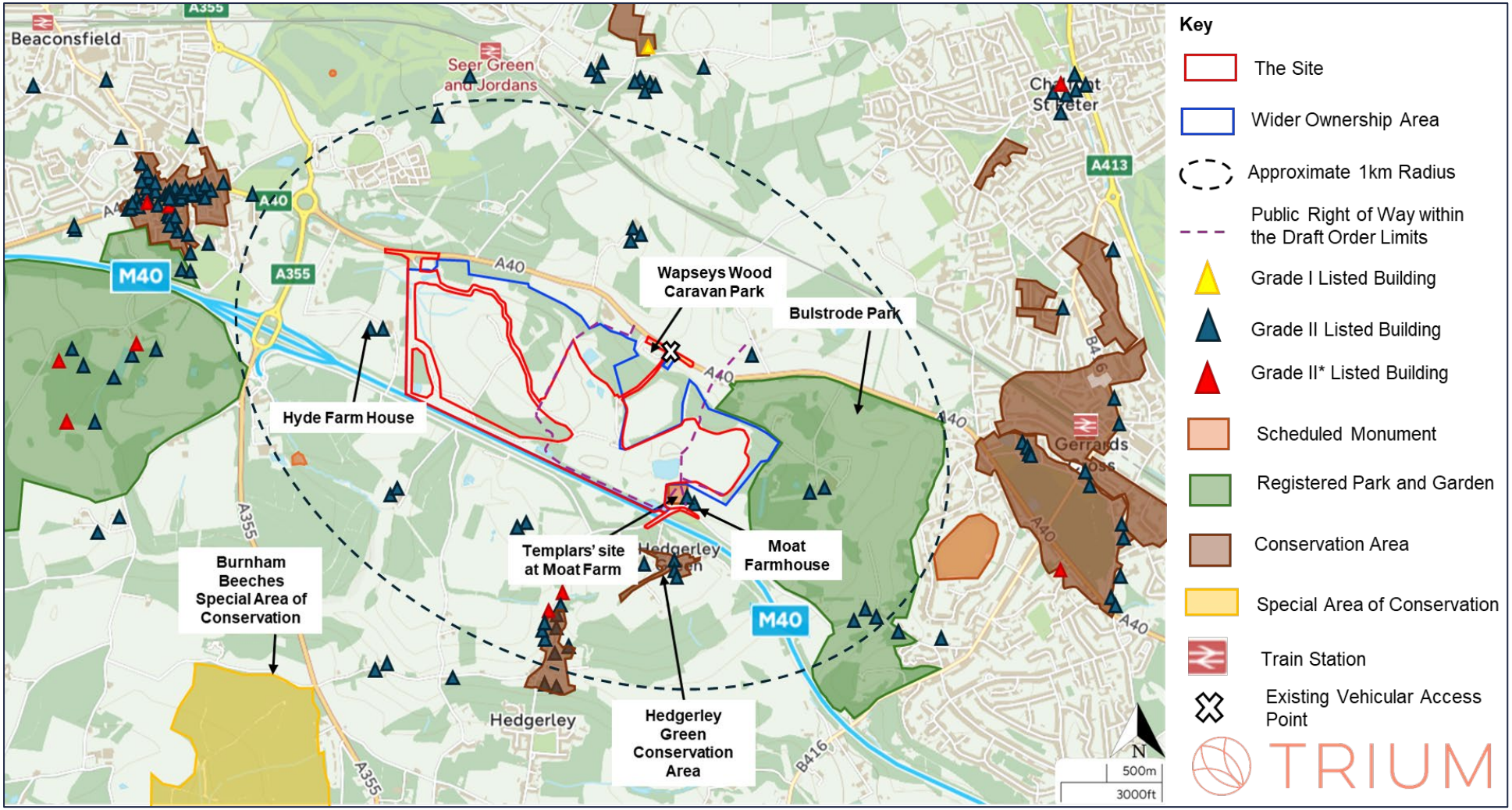
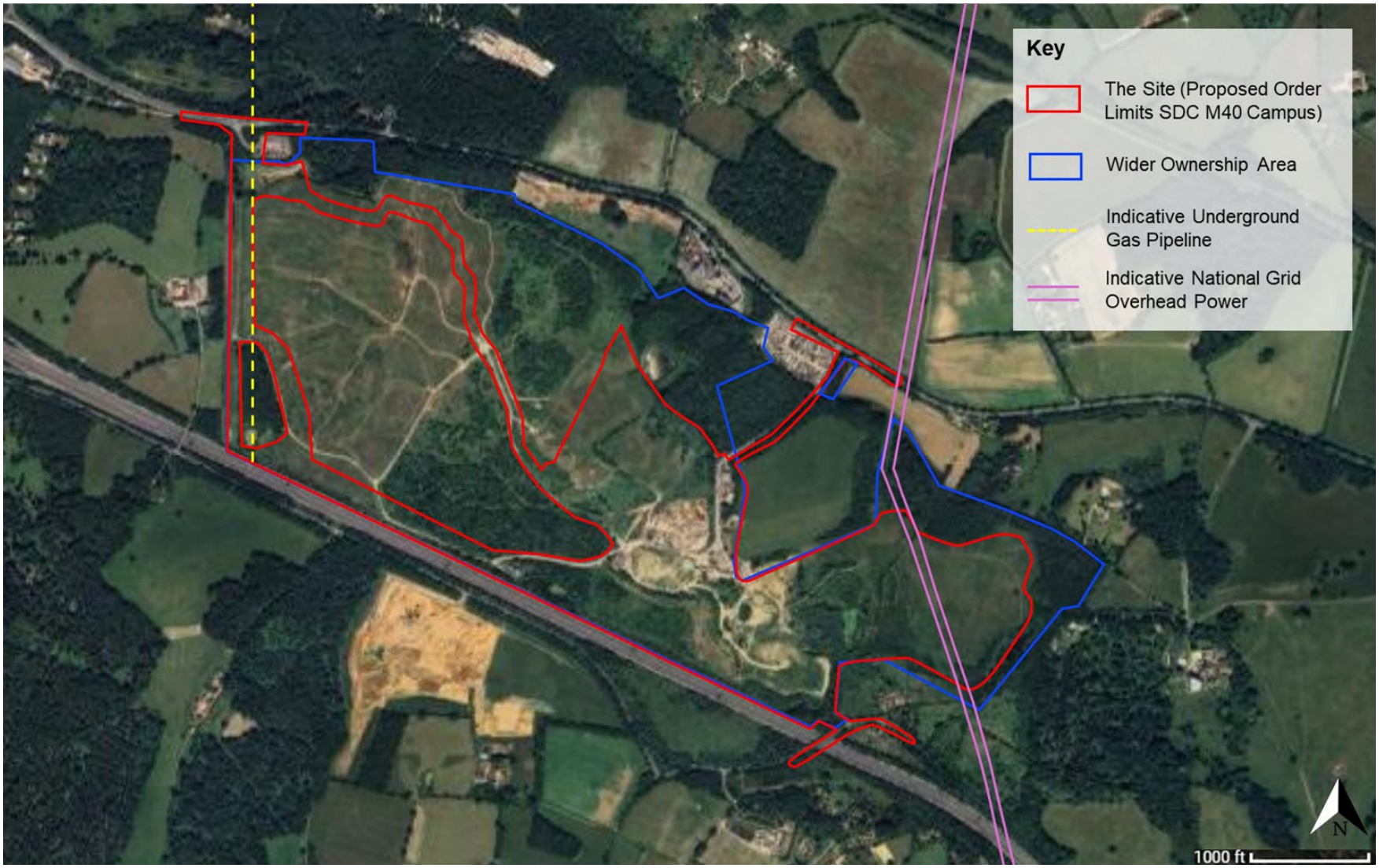
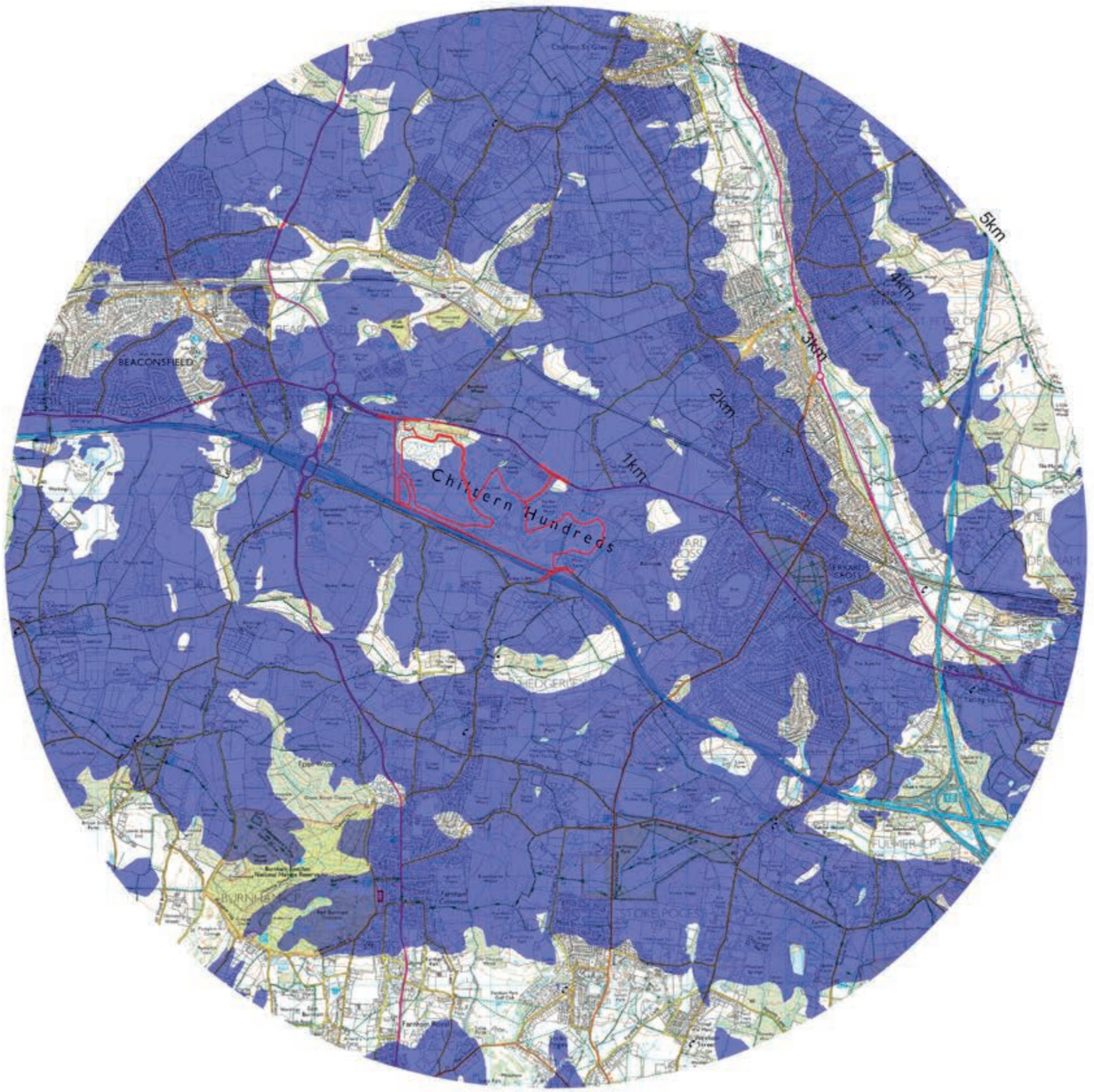


Figure 6 Indicative Gas Pipeline and National Grid Overhead Powerline Routing



Appendix 2: LVIA



The was created using Ordnance Survey at 5m resolution LIDAR DTM (Digital Terrain Model) data for an approximate radius of 5km centered around the site, therefore providing a topographical model of the bare earth's surface. Targets are then introduced by selecting key points of the proposal (In this case, the flue heights) . The software then calculates hundreds or thousands of section lines across the terrain from an observer height of 1.6m to the key points. The outcome of the above is represented by a colour map indicating visibility as a shade or unshaded where it has been interrupted by visual barriers. This ZTV does not include the screening effects of buildings or vegetation in the study area.

SCALE 1:50,000

250 750

0m 500 1250 2500

North

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Client

SDC Capital Partners

Site Boundary

Zone of Visibility for Proposed Buildings

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Client

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Project title

SDC M40 Campus

Drawing title

Figure 1: Worst case Zone of Theoretical Visibility (based on Bare Earth)

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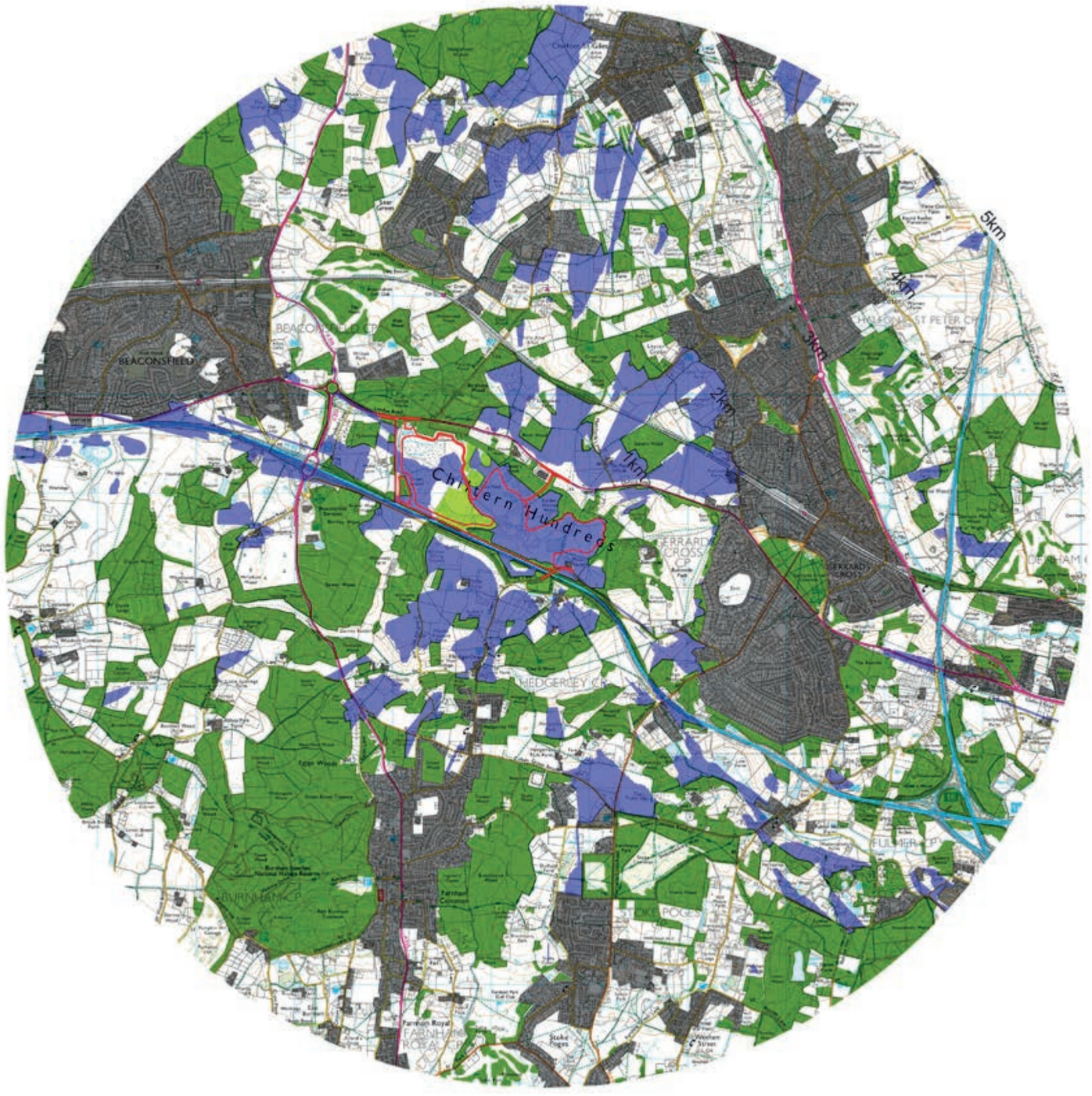
Scale	50,000 @ A3	Drawn	RS
Status	For Issue	Checked	SK
Date	06.10.25	Approved	SK

Drawing number

Revision



The ZTV was created using Ordnance Survey at 5m resolution LIDAR DTM (Digital Terrain Model) data for an approximate radius of 5km centered around the site, therefore providing a topographical model of the bare earth's surface. Targets are then introduced by selecting key points of the proposal (In this case, the flue heights) . The software then calculates hundreds or thousands of section lines across the terrain from an observer height of 1.6m to the key points. The outcome of the above is represented by a colour map indicating visibility as a shade or unshaded where it has been interrupted by visual barriers. This ZTV does not model existing buildings but includes the screening effects of woodland and scrub within 2km of the site centre.

SCALE 1:50,000

0m 250 500 750 1250 2500

North

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Site Boundary

Zone of Visibility for Proposed Buildings

Existing woodland blocks within 5km radius, as identified on 1:25k scale Ordnance Survey Explorer mapping. (modelled at 15m high)

Approximate extent of existing scrub vegetation within the site. (modelled at 5m high)

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Client
SDC Capital Partners

Project title
SDC M40 Campus

Drawing title
Figure 2: Worst case Zone Theoretical Visibility (with existing vegetation and buildings)

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Status	For Issue	Checked	SK
Date	10.06.25	Approved	SK

Drawing number

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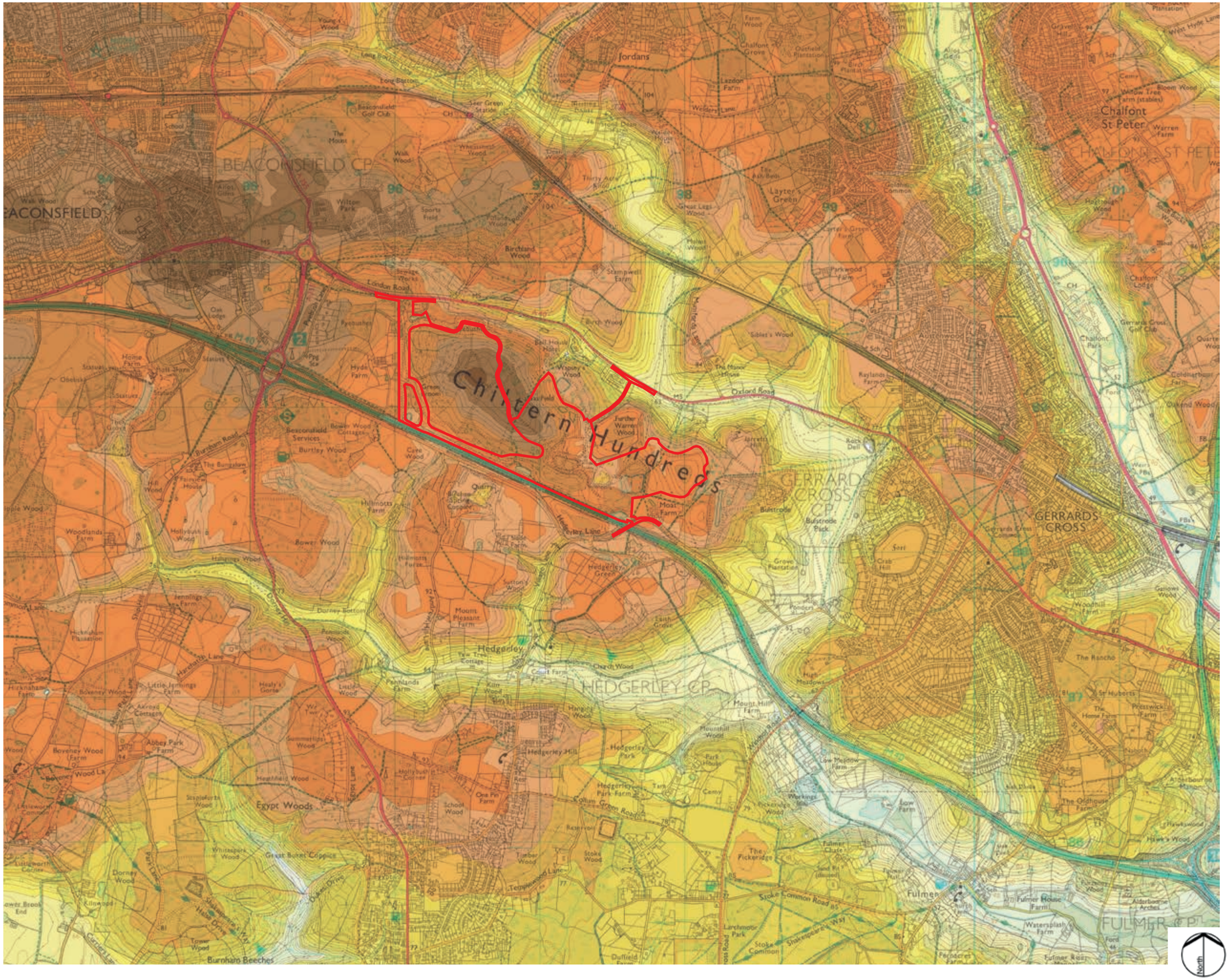

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Legend

- Site boundary
- 38-44m
- 44-50m
- 50-56m
- 56-62m
- 62-68m
- 68-74m
- 74-80m
- 80-86m
- 86-92m
- 92-98m
- 98-104m
- 104-110m
- 110-116m
- 116-122m

Notes
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Figure 3: Topography

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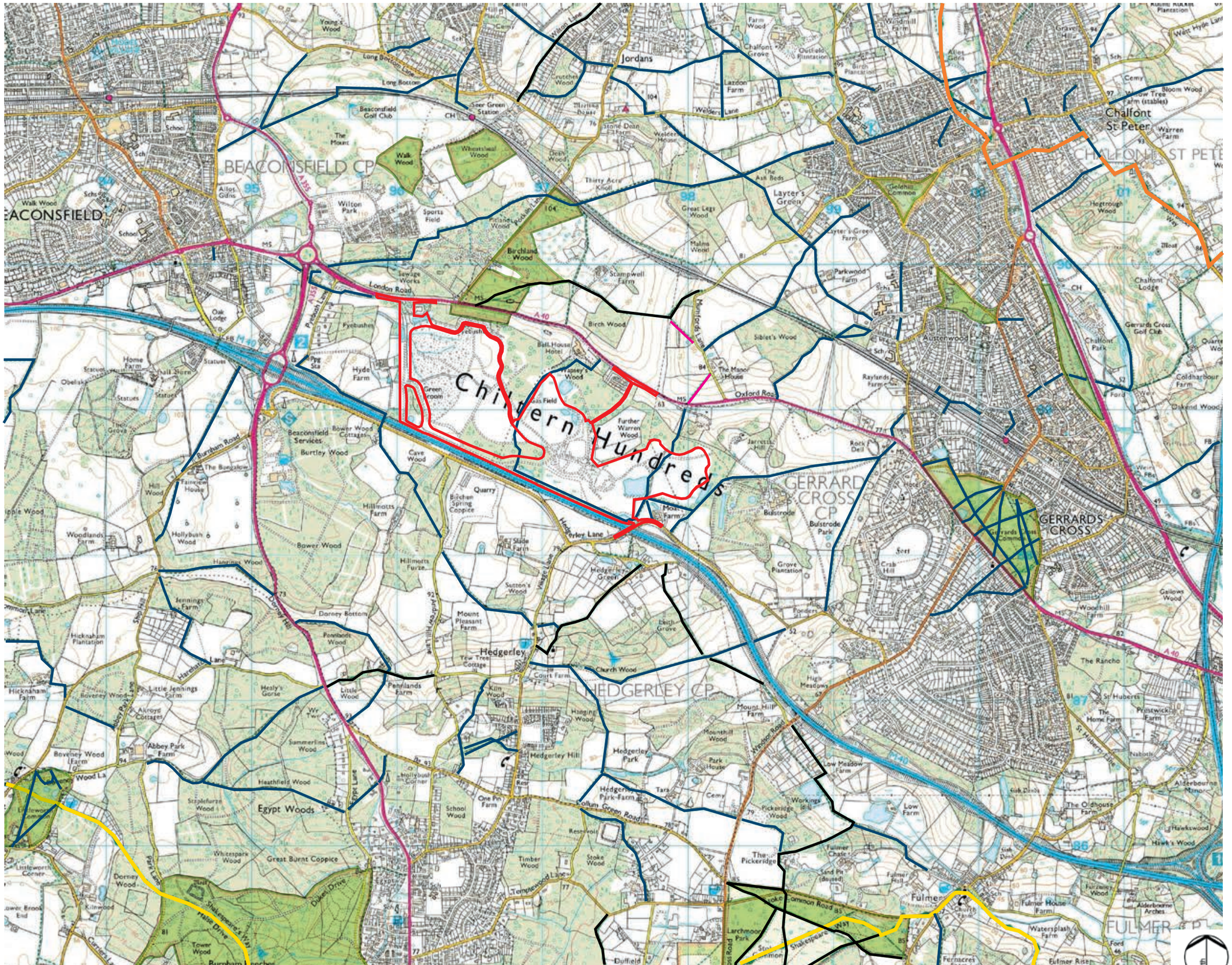

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Legend

- Site boundary
- Access Land
- Macmillan Way-Shakespeare's Way*
- South Bucks Way*
- Public Footpaths*
- Bridleways*

Rev	Description	Date

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Drawing title
Figure 4: Public Rights of Way within Study Area

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Status	For Issue	Checked	SK
Date	06.10.25	Approved	SK

Drawing number

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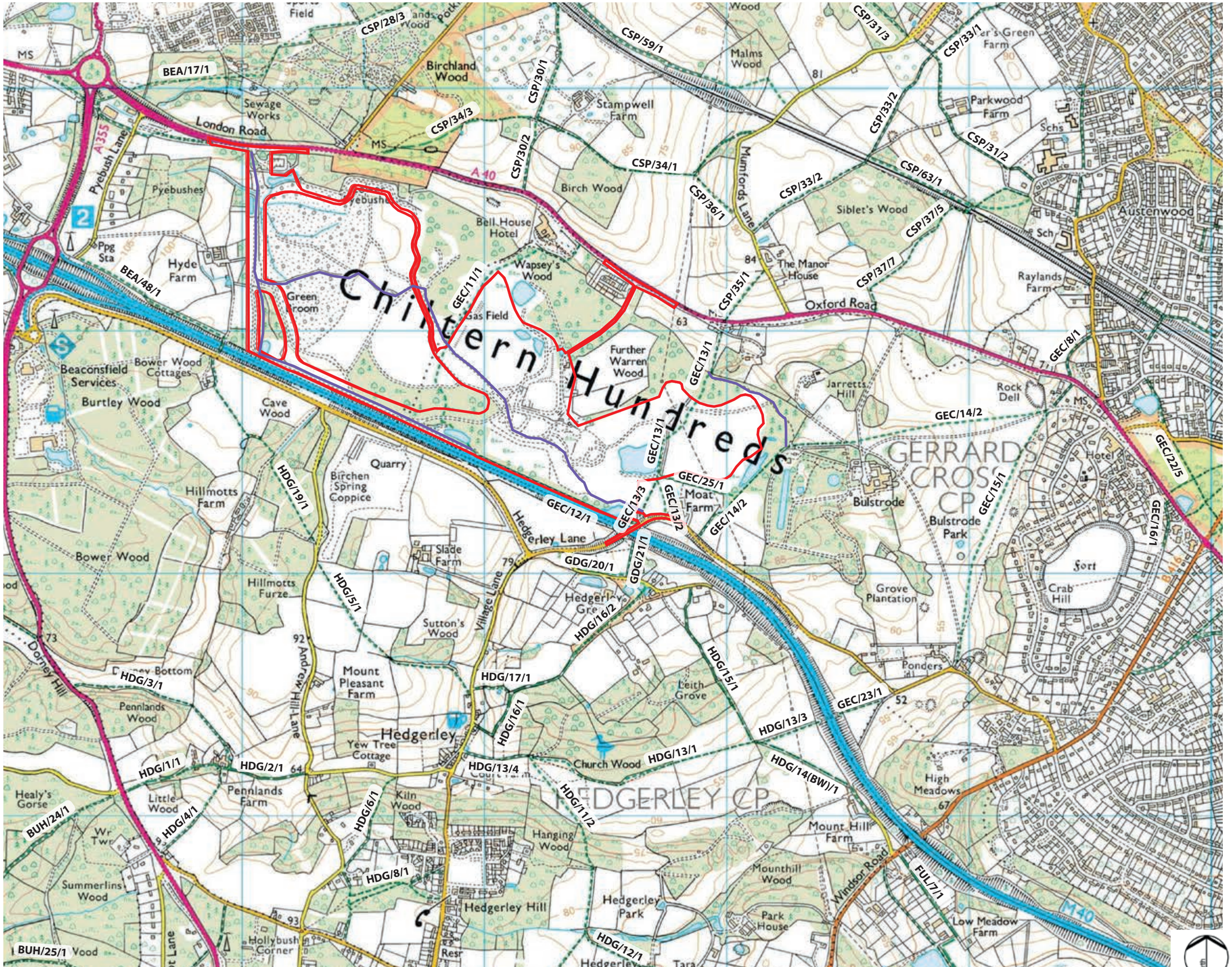

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Legend

- Site boundary
- Access Land
- Public Footpaths*
- Bridleways*
- Permissive Bridleway (part of Wapsey Wood Landfill Restoration Section 106 Agreement)
- xx/xx/xx Public Rights of Way reference numbers

* prow.buckinghamshire.gu.uk

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Figure 5: Public Rights of Way within 2km radius

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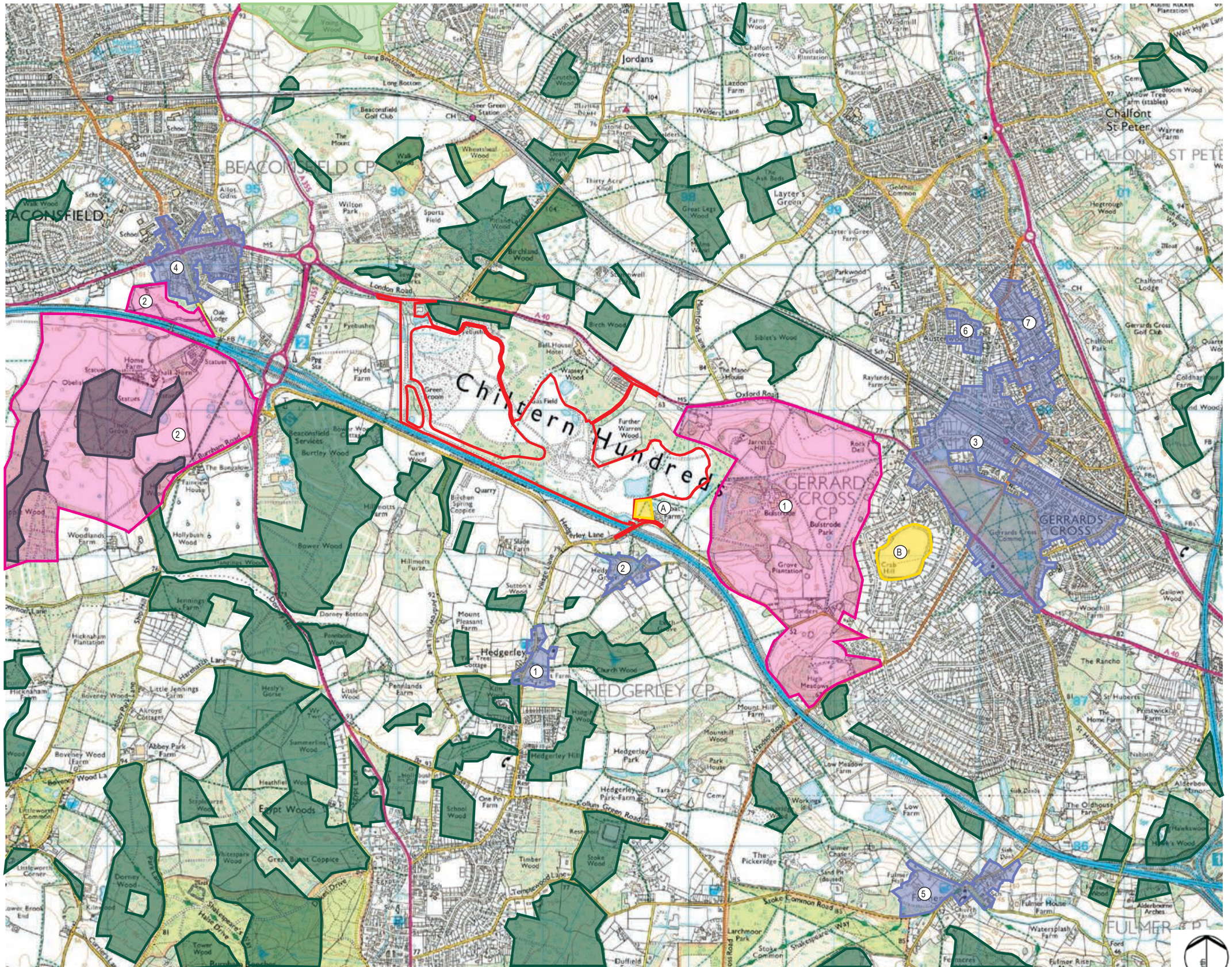
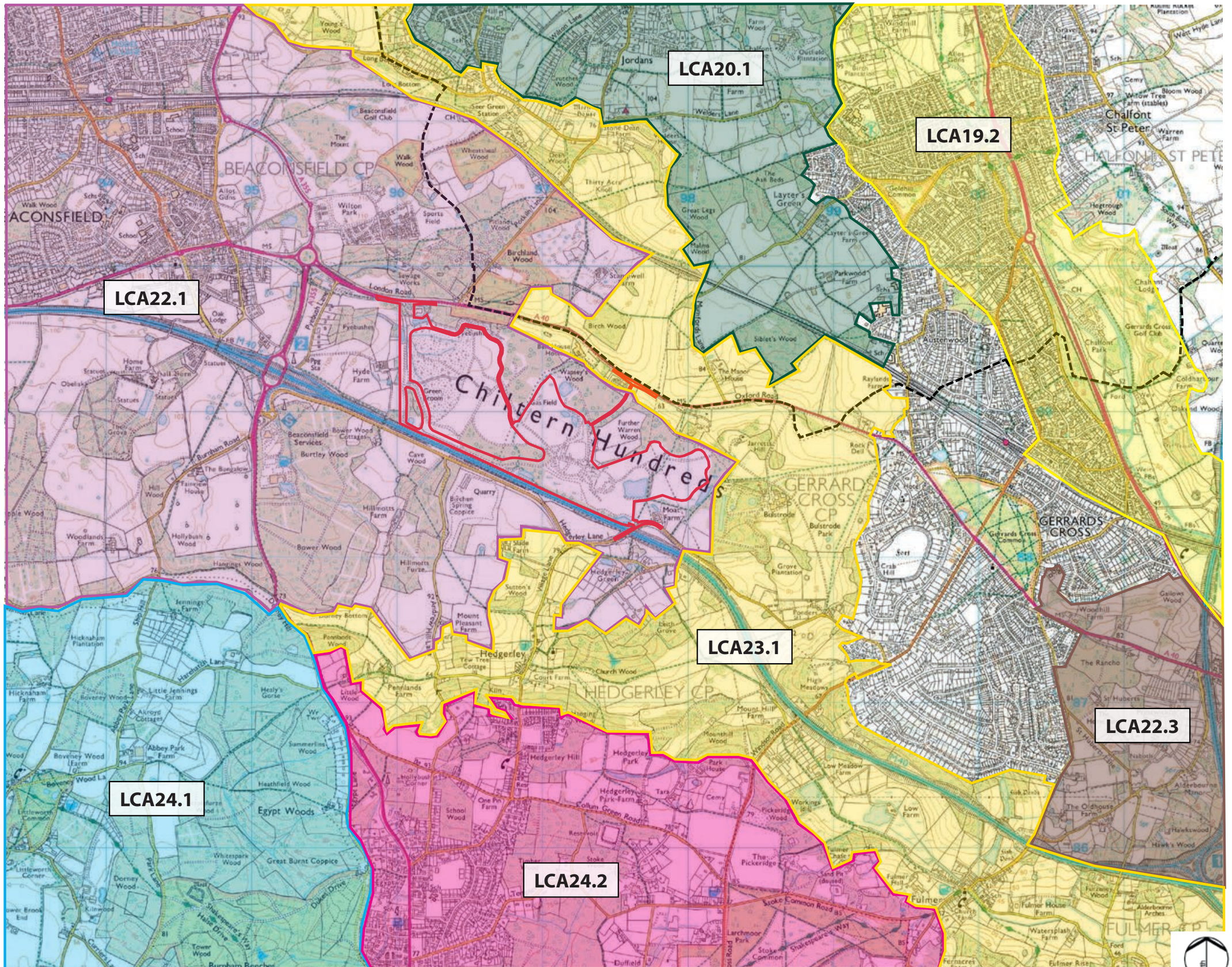
Status	For Issue	Checked	SK
Date	06.10.25	Approved	SK

Drawing number

Revision


BEACONSFIELD CP
HEDGERLEY CP
GERRARDS CROSS CP
Chiltern Hundreds
Jordans
Seer Green Station
Beaconsfield Golf Club
Wilton Park
Sports Field
Birchland Wood
Wheatsheaf Wood
Thirty Acre Knoll
Layter's Green
Great Legs Wood
Birch Wood
Sibley's Wood
London Road
A355
A40
M40
Oxford Road
Bull House Hotel
Wapsey's Wood
Further Warren Wood
Hyde Farm
Pyebushes
Oak Lodge
Beaconsfield Services
Burtley Wood
Cave Wood
Bower Wood
Hollybush Wood
Woodlands Farm
Hillmotts Furze
Quarry
Birchen Spring Coppice
Hedgerley Lane
Sutton's Wood
Mount Pleasant Farm
Penn Lands Farm
Church Wood
Hedgerley Park
Hedgerley Park Farm
Mount Hill Farm
Park House
Low Meadow Farm
Low Farm
The Pickeridge
Egypt Woods
Dorney Wood
Whitespark Wood
Great Brent Coppice
Timber Wood
Stoke Wood
Stoke Common Road
Shakespeare's Way
Larchmoor Park
Stoke Common
Fulmer Chase
Fulmer Mill
Fulmer House Farm
Watersplash Farm
Fulmer Rise
FULMER
Jennings Farm
Hicknahams Plantation
Little Jennings Farm
Abbey Park Farm
Bovevey Wood Farm
Heathfield Wood
Summerlins Wood
Healy's Gorse
Penn Lands Farm
Hardhatch Lane
Abbey Park Lane
Bovevey Wood Ln
Littleworth Common
Tower Wood
Shakespeare's Holme Drive
Duffield
Jarretts Hill
Rock Dell
Grove Plantation
Crab Hill
High Meadow
Gerrards Cross Common
Gerrards Cross Golf Club
Chalfont Park
Chalfont Lodge
Chalfont St Peter
Warren Farm
Hogtrough Wood
Woodhill Farm
The Rancho
St Huberts
The Home Farm
Pinewick Farm
Natcott
Alderbourne Manor
The Oldhouse Farm
Hawkswood
Hawk's Wood
Gallowes Wood
Coldharbour Farm
Willow Tree Farm (stables)
Boom Wood
Goldhill Common
Layter's Green Farm
Parkwood Farm
Raylands Farm
The Manor House
Munfords Lane
Pheasant Lane
Mount Pleasant Lane
Hedgerley Hill
Tarry
Cemy
Workings
Sand Pit (disused)
Fulmer Common Road
Duffield
Alderbourne Arches
Ford
Church
Sch
CH
FB
MS
Allot Gdns
Walk Wood
Deanwood
Farm Wood
Chalfont Grove
Outfield Plantation
Birch Plantation
Lazdon Farm
Stone Dell Farm
Windmill Farm
Allotts Gdns
Grave Hill
Beam Wood
Hedgerley Green
Sutton's Farm
Slade Hill Farm
Bull House Farm
Bulstrode
Bulstrode Park
Grove Plantation
Gerrards Cross
Gerrards Cross Common
Woodhill Farm
Galloway Wood
Hawk's Wood
Alderbourne Arches
Fulmer Rise
Fulmersacres
Watersplash Farm
Fulmer House Farm
Fulmer Mill
Fulmer Chase
Sand Pit (disused)
Sick Dell
Low Farm
Low Meadow Farm
Mount Hill Farm
Park House
Hedgerley Park
Hedgerley Park Farm
Tarry
Cemy
Workings
Church Wood
Hedgerley
Kiln Wood
Penn Lands Farm
Little Wood
Hedgerley Hill
Mount Pleasant Farm
Sutton's Wood
Slade Hill Farm
Bull House Farm
Bulstrode
Bulstrode Park



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Legend

- Site boundary
- District boundary*

Landscape character areas

- LCA 22.1(Beaconsfield Mixed Use Terrace) */**
- LCA 23.1(Alder Bourne River Valley) */**
- LCA 22.3(Tatling End Mixed Use Terrace) *
- LCA 24.1(Burnham Beeches Wooded Terrace) *
- LCA 24.2(Farnham and Stoke Common Wooded Terrace) *
- LCA 19.2(Lower Misbourne Settled River Valley) */**
- LCA 20.1(St. Giles Undulating Farmland)**

* South Bucks District Landscape Character Assessment (October 2011)
** Chiltern District Landscape Character Assessment (October 2011)

Rev	Description	Date

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Client
SDC Capital Partners

Project title
SDC M40 Campus

Drawing title
Figure 7: District Landscape Character Areas

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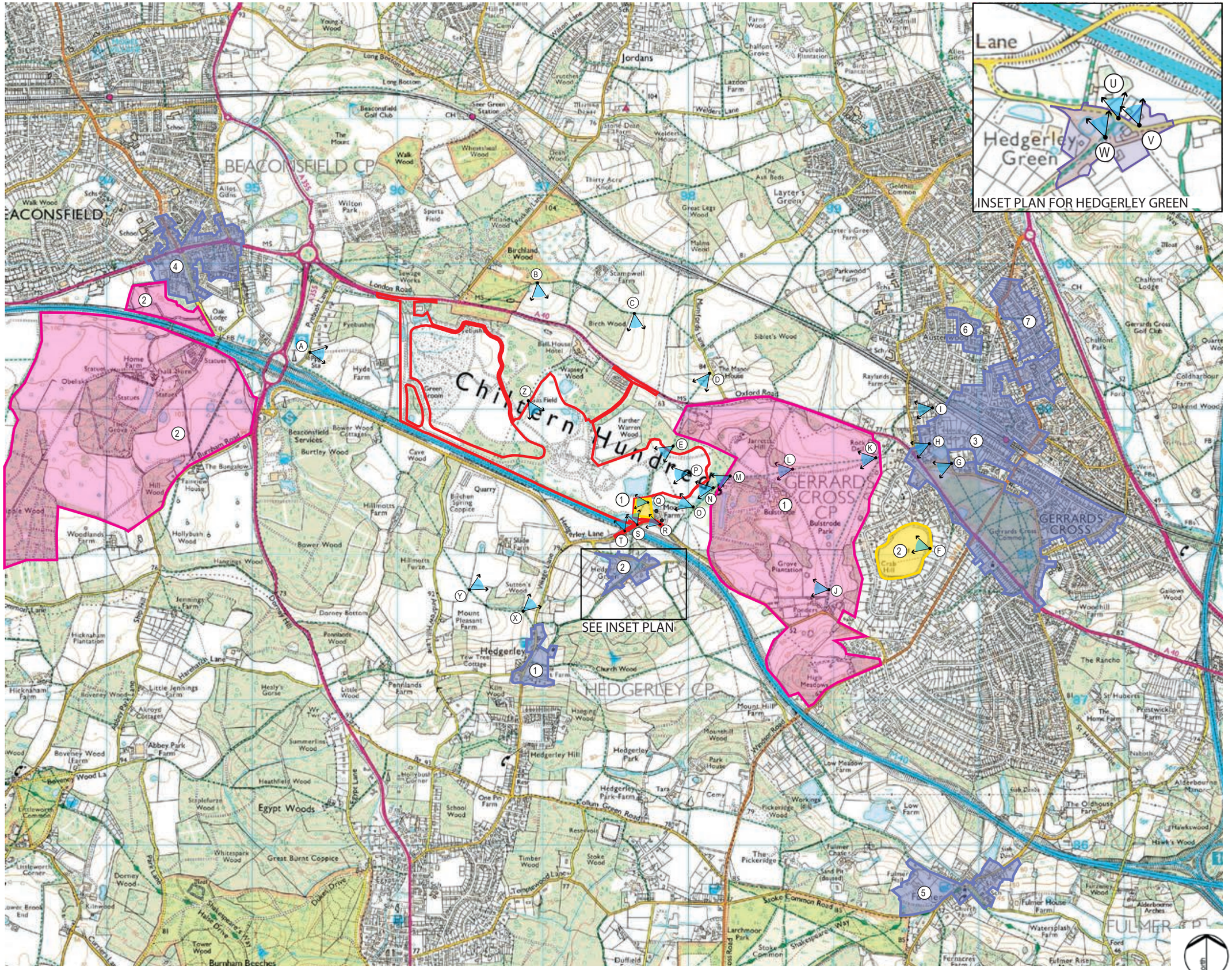
Status	For Issue	Checked	SK
Date	06.10.25	Approved	SK

Drawing number

Revision



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Legend

- Site boundary
- Historic Parks and Gardens*
  - (1) Bulstrode Park (Grade II*)
  - (2) Hall Barn (Grade II*)
- Scheduled Monuments*
  - (1) Templars site at Moat Farm
  - (2) Bulstrode Park Camp
- Conservation Areas***
  - (1) Hedgerley
  - (2) Hedgerley Green
  - (3) Gerrards Cross Common and Gerrards Cross Centenary
  - (4) Beaconsfield Old Town
  - (5) Fulmer Old Town
  - (6) The Firs Estate
  - (7) North Park and Kingsway
- (A) Photomontage Viewpoint Locations

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Client
SDC Capital Partners

Project title
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Drawing title
Figure 8: Site Context Photographic View-points/Preliminary Photomontage Viewpoints

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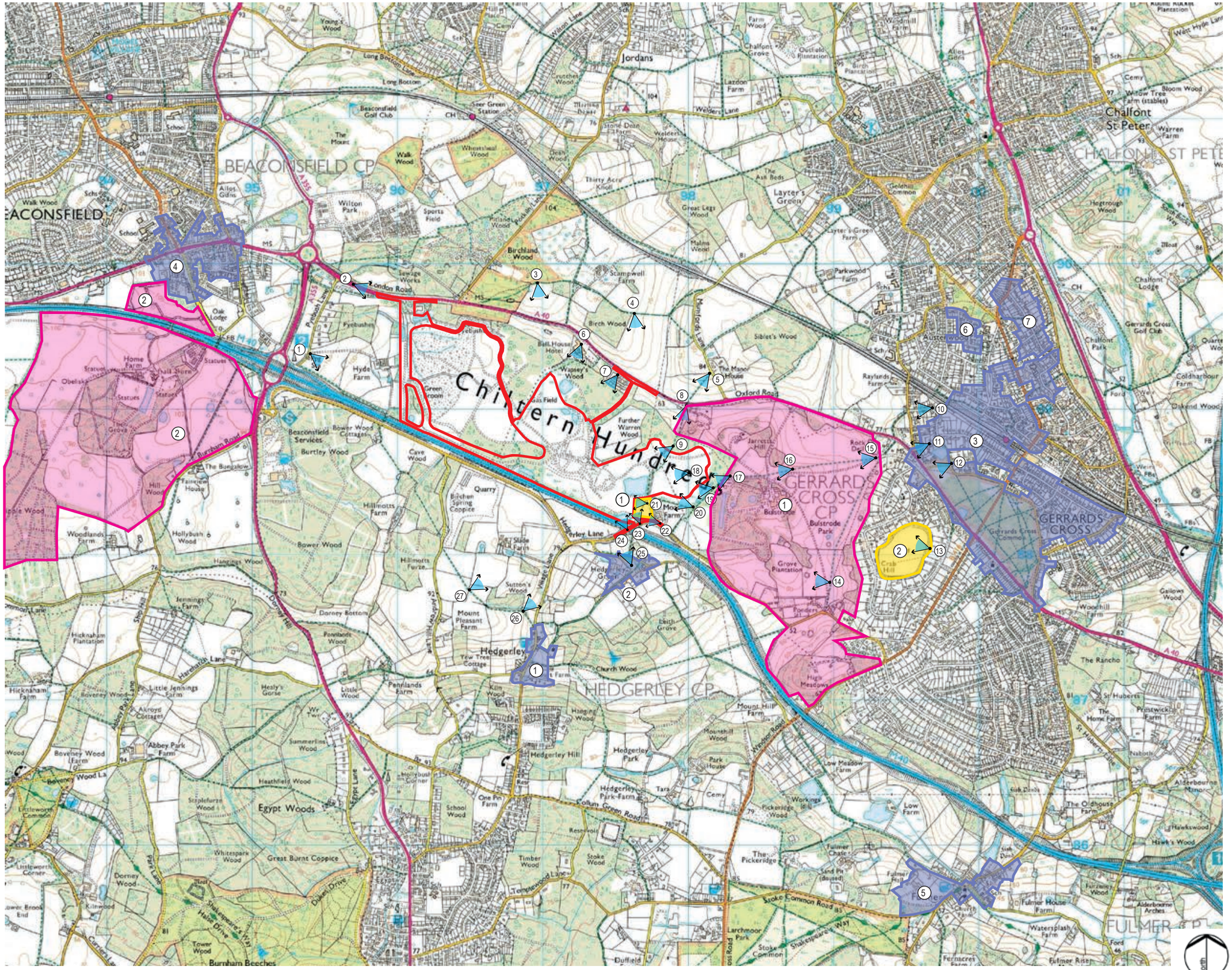
Scale	25,000 @ A3	Drawn	RS
Status	For Issue	Checked	SK
Date	07.01.2026.	Approved	SK

Drawing number

Revision



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Legend

- Site boundary
- Historic Parks and Gardens*
  - (1) Bulstrode Park (Grade II*)
  - (2) Hall Barn (Grade II*)
- Scheduled Monuments*
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  - (2) Bulstrode Park Camp
- Conservation Areas***
  - (1) Hedgerley
  - (2) Hedgerley Green
  - (3) Gerrards Cross Common and Gerrards Cross Centenary
  - (4) Beaconsfield Old Town
  - (5) Fulmer Old Town
  - (6) The Firs Estate
  - (7) North Park and Kingsway
- (1) Assessment Viewpoint Locations

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Client
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Project title
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Drawing title
Figure 9: Preliminary Assessment Viewpoints

Issued By	Manchester	T: 0161 850 8101	
Scale	25,000 @ A3	Drawn	RS
Status	For Issue	Checked	SK
Date	06.10.25	Approved	SK

Drawing number

Revision

Appendix 3: Archaeology

Archaeological Desk Based Assessment

Wapsey's Wood, Hedgerley, Buckinghamshire

Project Reference
794-PLN-HER-01808
Wapsey's Wood,
Hedgerley,
Buckinghamshire

Version 4

Date October 2025

Document status					
Version	**Purpose of document**	**Authored by**	**Reviewed by**	**Approved by**	**Review date**
V1	Planning App	Rob Masefield	Suzanne Gailey	RM	30 July 25
V2/ V3	Internal Review	Rob Masefield	Suzanne Gailey	RM	31 July 25
V4	Revised with new red line	Rob Masefield	Suzanne Gailey	RM	10 October 25

Approval for issue		
Robert Masefield	RM	10 October 25

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Executive Summary

- This archaeological desk-based assessment has been prepared by RPS on behalf of Montagu Evans. The subject of this archaeological assessment is Land at Wapsey's Wood near Hedgerley and to the west of Gerrards Cross in south Buckinghamshire. The site consists of former minerals quarry land parcels to the north of the M40 Motorway.

- The assessment provides a review of the site`s below-ground archaeological potential and addresses the information requirements of national, regional and local planning policy. The proposals are for a Data Centre within the main site area and two access routes. The main site area has been used for 20th century and later minerals extraction as shown by historic mapping, historic landfill records and Historic Landscape Characterisation presented in this report. This was also evident during the site visit conducted in July 2025 for this assessment.

- In terms of relevant designated heritage assets, no World Heritage Sites, Scheduled Monuments, Historic Battlefields or Historic Wrecks lie within the vicinity the study site. 'Templars' site at Moat Farm, Hedgerley' Scheduled Monument (List Entry 1006922; SU 97697 88312) lies immediately east of the eastern edge of the study site. An initial ('Good Practice Advice Note 17' (GPA3; Historic England 2017)) assessment of any potential setting related impacts to the Scheduled Monument from the proposed development has been undertaken. This is informed by the scale and massing of the proposals, the site visit and the historic data sources, which indicate that although the Scheduled area abuts the proposal site's eastern boundary, there can be no associated below ground archaeological survival within the site due to adjacent minerals extraction. In addition, the Scheduled Medieval moated site's remaining earthwork and it's associated below ground remains, are situated within a low lying grassed paddock surrounded to the west (within the east edge of the site) and north, by tall trees, such that, providing these trees are retained by the development they would screen views of the Data Centre. This conclusion is subject to provision of a proposed development wireframe to graphically demonstrate this screening, based on a viewpoint from the Scheduled Monument.

- A combination of LiDAR, Ordnance Survey mapping, historic landfill mapping, Historic Landscape Characterisation (HLC) (held by the Buckinghamshire HER) and site visit by the author, have confirmed that almost all of the site has been severely truncated by minerals extraction, with later landfill and landscaping creating an undulating entirely modern formation topography. These historic activities would have removed any buried archaeology assets. As such the groundworks associated with the construction phase of a scheme, including site preparation, excavation for roads, foundations, services and landscaping, are not anticipated to have any impact on buried archaeology for the almost all of the site.

- There is a minor exception to this high level of truncation in terms of the south-westernmost area of the red line. Here the western end of the proposed southern access route to the site and the contiguous area at the south-western extent of the red line, appear to comprise natural topography (see Fig. 3 HLC map which shows this small area of extant farmland enclosure and 'Green Broom' wood here). The remainder of the access routes and the main site area commensurate with 'industry' on the HLC and are mainly within landfill (as shown by the above sources, including LIDAR). It appears that any surviving archaeological remains within the access routes, in the context of the Secretary of State's non-statutory criteria for Scheduled Monuments (DCMS 2013), most likely be of overall low/local significance.

- The HER for the surrounding study area includes multi-period archaeological remains including Roman kilns c.120m to the south and the Moat Farm monument to the immediate east. In addition, archaeological investigations at Slade Farm, Hedgerley Lane and at the M40 Beaconsfield motorway services, have identified evidence of Neolithic, Romano-British and later inhabitation of the landscape. There is a low potential that any new groundworks required at these locations may encounter archaeology, most likely of low (local) significance if present. As the impact on archaeology, if present,

would be a restricted in area, the effect to archaeology is unlikely to be widespread or of significance (in EIA terms). Buckinghamshire County Archaeological Service (BCAS) will advise on whether any further mitigation is required for the limited currently untruncated areas.

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1 Introduction & Scope of Study

1.1 This below ground archaeological desk-based assessment has been prepared by RPS on behalf of Montagu Evans and their client.

1.2 The subject of this archaeological assessment, also known as “the site” or “study site”, is Land at Wapsey’s Wood, Hedgerley, Bucks. The site largely consists of restored former minerals extraction sites, with some light industry.

1.3 The site is centred at National Grid Reference (NGR) SU 96841 89089; located within the administrative area of Buckinghamshire Council.

1.4 Montagu Evans has commissioned RPS to establish the archaeological potential of the site and to provide guidance on ways to address any archaeological constraints identified.

1.5 In accordance with relevant policy and guidance on archaeology and planning, and in accordance with the ‘Standard and Guidance for Historic Environment Desk-Based Assessments’ (Chartered Institute for Archaeologists October 2020), this assessment draws together the available archaeological, topographic and land-use information in order to clarify the archaeological potential of the site.

1.6 This desk-based assessment comprises an examination of evidence held on the Leicestershire Historic Environment Record (HER) and other sources and includes the results of a comprehensive map regression exercise.

1.7 This assessment thus enables relevant parties to assess the archaeological potential of various parts of the site and to consider the need for design, civil engineering, and archaeological solutions to the archaeological potential identified.

Limitations

1.8 A degree of uncertainty is attached to any desk-based assessment where invasive archaeological fieldwork has not previously been undertaken on the Site, as the prevailing nature of the archaeological resource is that it is buried and therefore not visible. This means it can be difficult to accurately predict the presence and likely importance of below ground archaeological assets, and the likely impact (and resultant effects) of development upon such assets.

1.9 In such a scenario, the assessment represents a generally theoretical modelling of archaeological potential. The quality of the baseline data sources can affect the accuracy of the assessment, including for the following reasons:

- The Historic Environment Record can be limited because it is dependent on its administrators for timely updates and is also based on “random” opportunities for research, fieldwork and discovery;
- Lack of dating evidence for sites;
- Documentary sources are rare before the Medieval period and many historic documents are inherently biased;
- The extent of truncation caused by previous development impacts and landscaping works cannot be fully ascertained.

2 Planning Background & Development Plan Framework

2.1 National legislation regarding archaeology, including scheduled monuments, is contained in the Ancient Monuments and Archaeological Areas Act 1979, amended by the National Heritage Act 1983 and 2002, and updated in April 2014.

2.2 In March 2012, the government published the National Planning Policy Framework (NPPF), which was most recently updated in December 2024. The NPPF is supported by the National Planning Practice Guidance (NPPG), which was published online 6th March 2014 and has since been periodically updated.
(https://www.gov.uk/government/publications/national-planning-policy-framework--2)

2.3 The NPPF and NPPG are additionally supported by three Good Practice Advice (GPA) documents published by Historic England: GPA 1: The Historic Environment in Local Plans; GPA 2: Managing Significance in Decision-Taking in the Historic Environment (both published March 2015). The second edition of GPA3: The Setting of Heritage Assets was published in December 2017.

National Planning Policy

2.4 Section 16 of the NPPF, entitled Conserving and enhancing the historic environment provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 16 of the NPPF can be summarised as seeking the:

- Delivery of sustainable development;
- Understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment;
- Conservation of England's heritage assets in a manner appropriate to their significance; and
- Recognition that heritage makes to our knowledge and understanding of the past.

2.5 Section 16 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. Paragraph 207 states that local planning authorities should require applicants to describe the significance of any heritage assets affected by their development proposal, and that the level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than sufficient to review the potential impact of the proposal upon the significance of that asset.

2.6 *Heritage Assets* are defined in Annex 2 of the NPPF as: a building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. They include designated heritage assets (as defined in the NPPF) and assets identified by the local planning authority during the process of decision-making or through the plan-making process.

2.7 Annex 2 also defines *Archaeological Interest* as a heritage asset which holds or potentially could hold evidence of past human activity worthy of expert investigation at some point.

2.8 A *Designated Heritage Asset* comprises a: World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.

2.9 *Significance (for heritage policy)* is defined as: The value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.

2.10 *Setting* is defined as: The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a 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.

2.11 In short, government policy provides a framework which:

- Protects nationally important designated Heritage Assets;
- Protects the settings of such designations;
- In appropriate circumstances seeks adequate information (from desk based assessment and field evaluation where necessary) to enable informed decisions;
- Provides for the excavation and investigation of sites not significant enough to merit *in-situ* preservation.

2.12 The NPPG reiterates that the conservation of heritage assets in a manner appropriate to their significance is a core planning principle, requiring a flexible and thoughtful approach. Furthermore, it highlights that neglect and decay of heritage assets is best addressed through ensuring they remain in active use that is consistent with their conservation. Importantly, the guidance states that if complete, or partial loss of a heritage asset is justified, the aim should then be to capture and record the evidence of the asset's significance and make the interpretation publicly available. Key elements of the guidance relate to assessing harm. An important consideration should be whether the proposed works adversely affect a key element of the heritage asset's special architectural or historic interest. Additionally, it is the degree of harm, rather than the scale of development, that is to be assessed. The level of 'substantial harm' is considered to be a high bar that may not arise in many cases. Essentially, whether a proposal causes substantial harm will be a judgment for the decision taker, having regard to the circumstances of the case and the NPPF. Importantly, harm may arise from works to the asset or from development within its setting. Setting is defined as the surroundings in which an asset is experienced and may be more extensive than the curtilage. A thorough assessment of the impact of proposals upon setting needs to take into account, and be proportionate to, the significance of the heritage asset and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it.

2.13 In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance the NPPF, by current Development Plan Policy and by other material considerations.

Local Planning Policy

2.14 The site is located within the administrative area of Buckinghamshire Council, which was formed in 2020 through the merger of various previous local authorities including Aylesbury Vale, Chiltern, South Bucks, and Wycombe. The site was formerly located within the South Bucks local planning policy remains relevant to the site until such time as a new Buckinghamshire Council Local Plan is produced.

2.15 The Buckinghamshire Council Local Development Scheme January 2025 to January 2028 states that the South Bucks Local Plan: adopted in 1999 (remains applicable to south planning area).

2.16 The South Bucks District Local Plan Adopted March 1999 (Consolidated September 2007 and February 2011) includes the following deleted policies:

POLICY C13 - NATIONALLY IMPORTANT ARCHAEOLOGICAL REMAINS

Development will not be permitted which is likely to cause demonstrable harm to a site of, or the setting of, nationally important archaeological remains, whether Scheduled or not. When assessing applications affecting nationally important archaeological remains the Council will have regard to the following factors:

(a) the results of evaluation by fieldwork;

(b) the impact of the proposed development on the archaeological remains;

(c) measures to mitigate the impact of the proposed development; and

(d) whether any of those measures can and need to be secured by the imposition of conditions or by legal agreement.

POLICY C14 - OTHER ARCHAEOLOGICAL REMAINS

When assessing proposals affecting other archaeological remains the Council will have regard to the following:

(a) the results of evaluation by fieldwork;

(b) the impact of the proposed development on the archaeological remains;

(c) measures to mitigate the impact of the proposed development; and

(d) whether any of those measures can and need to be secured by the imposition of conditions or by legal agreement.

Where in-situ preservation is merited development which is likely to cause demonstrable harm to the site or its setting will not be permitted.

Where the Council is minded to grant permission for development which would involve the destruction of remains, archaeological investigation and recording of evidence will be required prior to the commencement of and during, the development."

2.17 The local planning authority are currently preparing and consulting on a New Local Plan. The Local Development Scheme (LDS) sets out the key planning policy documents that we will work on up to 2028 and the timetable for their completion.

2.18 The Buckinghamshire Council Archaeology Service (BCAS) provides expert advice and guidance to the local planning authorities and other interested parties.

2.19 In line with relevant planning policy and guidance, this desk-based assessment seeks to clarify the site's archaeological potential and the likely significance of that potential and the need or otherwise for additional mitigation measures.

3 Geology & Topography

Geology

3.1 The online British Geological Survey (BGS) records the bedrock geology of the study site as ‘Lambeth Group - Clay, silt and sand. Sedimentary bedrock formed between 59.2 and 47.8 million years ago during the Palaeogene period’.

3.2 Below Moat Farm superficial deposit of ‘Gerrards Cross Gravel - Sand and gravel - Sedimentary superficial deposit formed between 860 and 423 thousand years ago during the Quaternary period’ still survives but at ‘Gas Field’ and the remainder of the site the superficial deposits appear to have been removed by quarrying.

3.3 Figures 4-20 (and map regression exercise in Section 4 below) illustrate the former extent of minerals extraction events that have affected the main site area and most of the northern and southern access routes. This extraction appears to have been comprehensive.

3.4 Appendix 2 illustrate recorded ‘historic Landfill’ locations based covering parts of the western, central and eastern areas of the site. However, as above the historic mapping and the site visit (Section 5) confirms that more extensive quarrying has taken place over the main area of the site historically.

Topography

3.5 As a result of minerals extractions the study site (as discussed above) comprises artificially undulating land with deeper quarried zones still apparent within the north-west (current works area) and south-eastern (inlcuding lakes) areas, along with various bunds (e.g. along part of the eastern edge of the site). The higher areas of land surface are littered with gravel and flint nodules with relatively recent vegetation growth indicating landfill.

4 Archaeological & Historical Background with Assessment of Significance

Timescales used in this report

Prehistoric

Palaeolithic	900,000 -	12,000 BC
Mesolithic	12,000 -	4,000 BC
Neolithic	4,000 -	1,800 BC
Bronze Age	1,800 -	600 BC
Iron Age	600 -	AD 43

Historic

Roman	AD 43 -	410
Saxon/early medieval	AD 410 -	1066
Medieval	AD 1066 -	1485
Post medieval	AD 1486 -	1799
Modern	AD 1800 -	Present

Introduction

4.1 This chapter reviews the available archaeological evidence for the study site and the archaeological/historical background of the general area, and, in accordance with NPPF, considers the potential for any as yet to be discovered archaeological evidence on the study site.

4.2 What follows comprises a review of known archaeological assets within a 1km radius of the study site (Figs. 2a & 2b), also referred to as the study area, held on the Leicestershire Historic Environment Record (HER), together with a historic map regression exercise charting the development of the study area from the early 19th century onwards until the present day.

4.3 Chapter 5 subsequently considers the site conditions and whether the proposed development will impact the theoretical archaeological potential identified below.

4.4 There are three Scheduled Monuments within 1km of the Site. The Medieval Templars' site at Moat Farm, Hedgerley (Liset Entry 1006922; SU 97697 88312) lies at the eastern edge of the Site. The significance of the site is discussed in the Medieval section below and given its proximity to the site an initial GPA3 setting assessment is provided in the Section 5 (designated assets)'

4.5 Bulstrode Park camp (List Entry 1006954) is located c.1.75m to the east of the Site but is located in open space surrounded by modern housing at Crab Hill. A site visit to check intervisibility and some setting assessment was undertaken on 24th July 2025 and found that there is no potential intervisibility with the study site due to its urban situation and the intermediate rolling topography and woodland.

4.6 A 3rd Scheduled Monument in the vicinity is a Medieval '*Moated site in Bower Wood, 560m south west of Bower Wood Cottages*' (List entry 1017478), located c.800m to the south-west of the Site. A site visit to check intervisibility and some setting assessment was undertaken on 24th July 2025 and found that due to its location within Burtley Wood there is no potential intervisibility with the study site.

Previous archaeological work

4.7 There are 21 fieldwork 'Events' and 139 'Monuments' records within the 1km study area.

4.8 No previous invasive archaeological investigations are recorded on the Buckinghamshire HER for within the study site itself.

4.9 In 1979 excavations took place at the medieval Moat Farm (which was then scheduled|) from c.50m to the east the site (EBC11032; Monument 0052503000) (Stan and Pauline Cauvain 1988). The results are set out in the 'Medieval' section below. In 2000 Buckinghamshire Council (Minerals and Waste) made a site visit to the Scheduled Monument at Moat Farm and noted the proposed change of use for field into grazing (EBC16298).

4.10 In 1962 a Proton magnetometry survey was conducted 120m to the south of the site at two areas but no features were noted (EBC18459). In 1963 a Proton magnetometry survey was conducted in the same area where the Hedgerley Roman kilns (see Roman section below) had been found (EBC10798; Mon 0152302300).

4.11 A 2001 watching brief on barns at Knight's Rest, Moat Farm Barns, 74 Hedgerley Lane, c.150m to the east of the site, found part of two medieval walls (EBC16299).

4.12 In 1980 Mike Farley undertook a site visit to Bower Wood, c.780m to the south-west to the western extent of the southern access route (EBC13211; Monument 0469600000) and there followed a topographic earthwork survey in 1982 (EBC16815). A 2007 topographic earthwork survey and condition survey and a 2008 watching brief was also undertaken in the same area ahead of Beaconsfield Motorway Services (EBC17168; EBC17163).

4.13 In 2000 geophysical survey, shovel pit testing and field walking was undertaken at Burtley Woods , c.780m to the south-west to the western extent of the southern access route ,ahead of the proposed Beaconsfield service area development for A40 (EBC16297; EBC16296). Two transects of test pits identified artefacts from northern paddocks pits 1, 3, 4, 7, 12, 13, 15, 16, 23 and 24 that included 42 pieces of brick/tile along with 8 sherds of Medieval pottery. 18 test pits in the south-east woods found 11 pieces of brick/tile on pits 30, 32, 88, 90 and 98. Field walking produced only two flint flakes, glass and Post Medieval ceramics.

4.14 In 2014 a geophysical survey was undertaken at Slade Farm, Hedgerley from c.210m to the south-west of the site (EBC17693; Monument MBC34369) followed in 2015 by an 18 trench trial trenching exercise (EBC17692; Monument MBC34369; 0782300000).

4.15 In 2021 a negative trenching exercise was undertaken for Phase 3, of the Wilton Park, Beaconsfield development, c.600m to the north-west of the western extent of the proposed northern access route (EBC18427; Mon MBC7389; 0261300000) and in 2022 13 more trenches were excavated for Phase 4 (EBC18444). Phase 5 trenching was undertaken in 2022 and 2023 (EBC18662, Mon MBC47192; 0436300002 & EBC18661; Mon MBC7389; 0261300000). One undated pit was found in 2022. Also, in 2021 Historic Building Recording was undertaken for the garden walls at Wilton Park (EBC18642; Mon MBC46760; 0436303000).

4.16 In 1999 a geophysical survey was undertaken east of the M40 c.900m to the south-east of the site (EBC16636).

4.17 Another Watching brief took place in 2006 at Bulstrode House, Bulstrode Park, Gerrards Cross, c.900m to the east of the site, found evidence for the 19th century garden remodelling, demolition of the west wing in addition to a building south-west of the Pigeon Tower (EBC16770; Mons MBC4527; MBC25138 & MBC20412; 0154001000-1 & 0154004000). Building recording and

watching brief during demolition were also undertaken at Bulstrode Park, Gerrards Cross at the Print shop, staff cottage and workshops to the north-east of the main house (EBC16916).

4.18 Work in the vicinity includes a large archaeological geophysics and trenching evaluation conducted at Slade Farm, Hedgerley Lane, Hedgerley, (NGR SP 966 883) in 2015 to the south of the site and the motorway. The summary of the report indicates archaeology nearby (potentially within landfill areas of the present site) with a summary as follows:

"Flint scatters and a possible fragment of Neolithic fired clay were recovered during excavations immediately to the northeast of the assessment site (BHER 0152310000 and 0152310001). In the same area Romano-British pottery kiln sites were excavated (BHER 0152300000, 015231000, 0152302000) and others were located further to the east. A possible kiln site is also located on the assessment site (BHER 0256900000), and the line of a Roman Road bordered the northern edge of the site running parallel with Hedgerley Lane (BHER 0439902000). At Moat Farm, 550m to the north-east, a Scheduled Ancient Monument (BHER 0052502000) is probably the site of a Templar manor or preceptory dating from the early 14th century. Slade Farmhouse and its ancillary buildings (BHER 1226500000 and 1226600000), located immediately south of the assessment site, are Grade II listed buildings with medieval stonework incorporated.

Remains of a small Isolation Hospital and a post-medieval quarry pit are located on the assessment site (BHER 084120000), and redundant post-medieval field boundaries shown on the historic maps are also likely to survive. The majority of features were present in Trenches 15 and 18 which are located in a southern area of the site, along with Trench 16. These trenches collectively contained five pits, two gullies and a ditch. No finds were present in any of these features and it is unknown if they are contemporary, however this area of the site does have an increase of activity. A kiln was present in Trench 5, F1211. Environmental samples from the kiln demonstrate the use of oak timber or charcoal as fuel. Based on local evidence the kiln may be Romano British. In nearby Trench 6, an undated quarry pit was excavated (F1009), although these features may not be contemporary it does show a possible industrial area of the site. Two other ditches were also present in Trenches 3 (F1005) and 7 (F1007)."

4.19 Findings are limited but draw attention to the potential of remains of prehistoric, Roman and Medieval date in the area and of the Moat Farm Scheduled Monument (see below).

Prehistoric (Palaeolithic and Mesolithic)

4.20 Despite the large scale minerals extraction that have taken place at the site since the later 20th century there are no associated records of Palaeolithic date within the site itself.

4.21 Lower Palaeolithic to Middle Palaeolithic and Neolithic flint artefacts (MBC344; 0009700000) are located by the HER to the north of the site at the A40. The reference states that these were found in Gerrards Cross but so the findspot may not be accurately located. The reference also states the finds were 'from Bulstrode Park area'.

4.22 Four Lower to Middle Palaeolithic flint handaxes found more accurately located from Gerrards Cross, c.600m to the east of the site (MBC345; 0009701001).

4.23 During the excavation of Roman kilns c.120m to the south of the site at Hedgerley, eleven Mesolithic to Bronze Age worked flint were also recovered (MBC4481; 0152310000).

4.24 These low levels of findings generally suggest a low potential (prior to truncation) for archaeological remains of earlier prehistoric periods, associated with hunter-gathering subsistence, within the site.

Prehistoric (Neolithic to Bronze Age)

4.25 By c.4,000BC tracts of land were opened up for agricultural and pastoral use by the earliest farmers of the Neolithic, a trend of woodland clarence which increased by the Bronze Age.

4.26 A Late Neolithic to Early Bronze Age flint transverse arrowhead has been recovered from Wapsey's Wood, c.200m to the north of the proposed northern access track (MBC10897; 0408400000; EBC10005; EBC14512) where other finds of the same general date include a polished Neolithic axe (MBC10901; 0408401003), a laurel leaf arrowhead (MBC10906; 0408401008), a flint pick (MBC10902; 0408401004), four Neolithic to Bronze Age scrapers (MBC10903; 0408401005), five similarly dated flint borers and a number of flint flakes (MBC10904; 0408401006: MBC10905; 0408401007) and a hammerstone (MBC10900; 0408401002).

4.27 A piece of a broken Neolithic polished axe was recovered as a surface find at Wilton Park c.780m to the north-west of the western end of the proposal site's northern access route (MBC4725; 0159300000; EBC12798).

4.28 A fragment of possibly Neolithic fired clay excavated was recovered prior to gravel extraction in Hedgerley at the Roman kilns site, c.120m to the south of the site (MBC4482; 0152310001; EBC18458).

4.29 Six flint blades of Neolithic date were found c.580m to the east of the site (MBC338; 0277501000), while six flint scrapers of Neolithic to Bronze Age date were found near Birchwood c.800m to the north of the site (MBC10864; 0407900001). Further worked flints of Neolithic date are noted at the HER in the same area (MBC10865: 0407900002: MBC10868; 0407910002: MBC10869; 0407910003; MBC10870; 0407910004: - MBC10871; 0407910005: MBC10872; 0407910006).

4.30 Other Neolithic flintwork finds are recorded south-east of Siblet's Wood c.1km to the north-east of the site (MBC10896; 0408306000).

4.31 Despite the scatter of flintwork within the study area no Neolithic features have been found to date in the study area. Much of the flintwork note above with the exception of the diagnostic polished axes, arrowheads and blades may alternatively date to the Bronze Age. Despite the scatter of flintwork within the study area no Bronze Age features have been found to date in the study area.

4.32 The available evidence suggests Neolithic and Bronze Age populations were active in the area of the site and that the potential for features within the site *before the known and significant truncation*, would have been moderate.

Iron Age/ Roman

4.25 There are no Iron Age sites of finds confirmed within the study area, although this absence may reflect a relatively low level of archaeological fieldwork within the study area although the Iron Age hillfort of Bulstrode Park was located c.1.75m to the east of the site.

4.26 The Verulamium (St Albans) to Silchester Roman road (Viatores Route 163) ran on a north-east/south-west alignment c.750m to the north-west of the western extent of the west end of the proposed access route (MBC11530; 0436100000).

4.27 Another possible Roman road between London and south Oxfordshire is suggested as running north-west/south-east through the study area, some 200m to the south of the site (MBC11627;

0439900000). A second possible Roman road alignment is suggested to the south-west of the main site but is very uncertain (MBC11628; 0439901000: MBC11629; 0439902000).

4.28 Roman findings in the study area include a series of single chamber 2nd century Roman kilns (known as Hedgerley kilns) found c.120m to the south of the site ahead of minerals extraction in the 1930's and in the 1960's (MBC4470; 0152300000; MBC4478; 0152302100). The HER also references a 1935 preliminary excavation of early Roman kilns, just to the east of the above location (MBC4471; 0152301000: MBC4472; 0152301001: MBC4473; 0152301002) and two Roman kilns destroyed by the M40 in 1972 (MBC4513; 0153100000) inlcuding reference to destruction of kilns at Moat Farm by the M40 (MBC6265; 0214500000). In addition, magnetic survey in 1962 was conducted at the kilns ahead of gravel extraction (MBC4474; 0152302000) and the Roman pottery and kiln furniture found is separately referenced by the HER (MBC4475; 0152302001: MBC4477; 0152302003: MBC4476; 0152302002). Other features identified included Roman ditches (MBC4479; 0152302200: MBC4480; 0152302300). This pottery industry may have been established beside the aforementioned possible Roman road line to the south of the site.

4.29 In another location at Slade Farm a possible Roman pottery kiln was identified vis aerial photographs c.450m to the south of the site (MBC7309; 0256900000). The 'Land north of Slade Farm' evaluation project identified a Roman kiln that had also been identified by geophysical survey, along with undated ditches (MBC34369; 0782300000).

4.30 There is no substantive evidence that the area was heavily settled and exploited during the Iron Age but the Roman period pottery industry, mainly to the south of the site, along with one certain and two possible Roman roads through the study area, indicate the likelihood that this landscape was exploited for farming as well as industry and transport at this time. On balance, the study site can be considered to have had a low Iron Age and moderate to high potential to contain Roman evidence *prior to the known truncation by minerals extraction*.

Anglo-Saxon/Early Medieval

4.31 The site is located across several parishes that came into existence by the late Saxon period (Beaconsfield, Farnham Royal and Hedgerley). The place name of Hedgerley has Saxon origins and Hedgerley Dean was supposedly the location of a battle between Saxons and Vikings https://heritageportal.buckinghamshire.gov.uk/theme/tbc680. The Medieval parish extended to the east of Village Lane, to the north to the present A40 and to the south to the One Pin.

4.32 There are no Saxon period /early Medieval buried archaeological sites or finds known within the study area.

4.33 Moat Farm, Hedgerley (List Entry 1006922; SU 97697 88312) lies at the immediate eastern edge of the site. Based on documentary records the moated site is thought to have an association with the Templars Preceptory here, dated from the 13th Century (founded pre-1276) and in use to the 14th Century (dissolved 1308-12). It was then the site of a Medieval Manor House from the 14th to 17th century, following which it was used as a farm. The Buckinghamshire Heritage Portal notes that:

"Bulstrode Preceptory founded pre-1276 &. Did not pass to Hospitallers (account of property 1309) (B4). Probable that it stood on site of Moat Farm, which became capital messuage until manor united with Bulstrode 1686, when it became home farm for Bulstrode Park (B1-7,B21). A change in ownership and proposed use for the field (grazing by horses) prompted a site visit accompanied by the EH monument warden. It was noted that the field was covered in long grass and that there were reeds in the lower parts. The new owner noted that there was sewage discharge into the field from the farm's septic tank. The earthworks were visible as a low undulating platform on the east side of the field with a broad low depression on the south and west sides. There is also a bank linking the hedgerow bank to the platform. It is unclear whether these are original elements of the

site or the result of disturbance from adjacent grazing /road construction. However, the possibility that the platform does define the moated island ought to be considered (B19)."

4.34 The Medieval site is located within an Archaeological Notification Area, which like the Scheduled Monument, borders the site on its west side.

4.35 HER MBC1751 (0052503000) relates to the Medieval moat or fishpond at Moat Farm, formerly at the extreme south-eastern extent of the site that is now mainly destroyed by the M40/gravel working. The HER reports that an ovoid form (c.270 x 280m) was suggested by aerial photographs of 1947 ('18/01/47. RAF 79/ 4149 to 4153. SU\968867') and that the earthworks on a low plateau could have defined a large homestead moat. As noted above the scheduled monument to the immediate east of the site was subject to minerals excavations in 1979 (EBC11032).

4.36 The following is an extract from Records of Buckinghamshire (Stan and Pauline Cauvain 1988, 183-187):

"EXCAVATIONS AT MOAT FARM, HEDGERLEY

Introduction

Moat Farm, Hedgerley (SU 97738830 and Fig. 1) is thought to be the site of the original Bulstrode Manor which was associated with the Knights Templars since before 1200. The order was dissolved in 1308. An account of the history of the site is given by A. Baker (1980).

Only a part of the moat now survives (Fig. 1), the course of its southern and western perimeters

are not known. The whole site is generally considered to be medieval in date, though the Ordnance Survey have suggested that it may have utilized the remains of the ditch of an Iron Age plateau fort. This hypothesis can not now be easily checked as most of it has been destroyed by gravel working on the west and by construction of the nearby M40 motorway.

In 1978 the impending sale and possible use of the site of Moat Farm for gravel extraction prompted the Hedgerley Historical society to apply for permission from the Department of Transport for a preliminary field study at Moat Farm, including trial excavations in selected areas. Following receipt of permission excavations took place in 1979 and an interim account was published by B. Stainton (1980) and see photograph in Rice (1980, 60).

The Excavation

A survey of the site was carried out on the ground with a proton-magnetometer and from the air with an infra-red pyrometer. Both of these surveys indicated large areas of anomalies within the moat.

A section was cut through a dry portion of the moat (Fig. 1). The line of the moat and its subsequent infilling was revealed, though a detailed profile could not be ascertained as the bottom lay beneath the water table. It is probable that the moat ditch had a generally wide, flat bottom. The only dating evidence from this trench was a sixteenth-century lead-glazed sherd found in one of the lower layers of fill.

A grid was laid down within the moat and a series of nine trenches were opened up. In all of the trenches a dense layer of building debris was found only 200 mm beneath the present ground level. Fragments of walls were present in four trenches and there was evidence of robbed foundations in a further two (Fig. 2). Based mainly on differences in construction it was considered that at least three building periods were represented.

The outer edges of the phase 1 wall (trenches C4 and B4) were defined by lines of flints which had not been dressed, and which were sitting in a foundation trench. Irregular-shaped flints were also present in the core of the wall, along with some mortar and pieces of chalk. The phase 1 wall was

traced for about 6 m running westward, and it probably continued on the same alignment underneath the later phase 2 wall. A mortar floor was associated with the phase 1 wall and overlay an earlier chalk floor. The limited excavation did not determine whether the chalk floor was associated with the phase 1 wall, or some earlier activity. Robbed wall foundations a short distance to the north (trenches B2 and B3) were considered to be associated with the phase 1 wall.

The construction of the phase 2 wall (trenches B4 and A4) was superior to that of phase 1, though it also was constructed of flints, chalk pieces and tile, the proportion of the latter A short section of wall ran northwards at right being greater than in phase 1…

The phase 2 wall was built directly on the phase 1 wall and was traced for about 6 m running westward. The traces of wall showing in the sides of the intermittently filled pond to the west (Fig. 2) may be a further continuation of the phase 2 wall… A further section of wall about 10 mm northeast of phases 1 and 2 (trench D1) was uncovered much closer to the surface. It too was constructed with flints, chalk pieces and tiles but the proportion of mortar present was less than with other wall sections. Features apart from walls were sparse but included a post-hole and a small pit, both located in trench B2.

The Finds

There were no stratified finds from the excavation. None of the trenches produced any firm dating evidence for the construction of the walls. However, a small quantity of medieval pottery was recovered from the general layer of building debris which covered the site, along with some animal bones, oyster shells, a few iron nails and a couple of lead items.

The Medieval Pottery

The medieval pottery…can be dated stylistically to the earlier years of 14th century…

Conclusions

The limited excavation at Moat Farm has indicated the presence of a medieval building on the site enclosed by the moat. The meagre finds suggest a date in the early years of the fourteenth century which largely agrees with the date for the occupation of Temple Bulstrode by the Hospitallers. However, the evidence provided by the excavation is insufficient to confirm the site as that referred to in documentary sources.

Since the excavation took place the sale of the portion of the field in which the site was located was withdrawn and the site has now been scheduled…"

4.37 The plan of the excavation is provided at Appendix 3 which shows the extent of quarrying up to the immediate west (the eastern edge of the study site) and northern edges of the scheduled area.

4.38 A 2001 watching brief on barns at Knight's Rest, Moat Farm Barns, 74 Hedgerley Lane, c.150m to the east of the site, found part of two medieval walls (EBC16299).

4.39 Grade II listed Hyde Farm House, c.300m to the north-west of the western end of the western extent of the proposed southern site access, is suggested as a rebuild of a former Medieval manor (MBC7637; 0282001000; List Entry 1124578).

4.40 Bulstrode Manor, c.800m to the east of the site has a Medieval to Post Medieval history of use (MBC4526; 0154000000). Until the 17th century it was owned by the Bulstrode family and was associated with a deer park with belonged to Bisham Abbey in the Medieval period (MBC4528; 0154002000).

4.41 Wilton Manor, in the north-western zone of the study area, was also of Medieval derivation (MBC11540; 0436300000) and Medieval pottery was found at Milton Park during an evaluation (MBC43652; 0436300001).

4.42 Mumford's Farm, c.750m to the north-east of the site, also has documentary evidence as a Medieval manor of Chalfont (MBC2716; 0085000000).

4.43 Bower Wood contains a probable medieval moat and fishpond earthworks (MBC12323; 0469600000; Scheduled Monument 1017478) and is also an Archaeological Notification Area.

4.44 Other Medieval finds from the study area include coins (MBC35151), brooches (MBC35152), buttons (MBC35158).

4.45 The line of the A40 London to Oxford road is thought to have been used as an important Medieval communication route from the Midlands to London and Wales.

4.46 In terms of Medieval potential, the site prior to its truncation for minerals extraction, would have had a high potential to contain landscape evidence associated with Moat Farm, particularly to the immediate west of the Scheduled site. That potential has been removed by quarrying.

4.47 The Hyde Farm House Medieval manor, to the north-west of the western extent of the southern access route's wider compound area, may have owned the associated farmland and there is some (low) potential for former landscape features at this restricted currently soft landscape area part of the site.

Post Medieval & Modern (including map regression exercise)

4.41 A large number Post Medieval and Modern references in the HER relate to Portable Antiquity Scheme (PAS) database and clay and gravel extraction sites. These are listed in Appendix 1 but are only discussed below where relevant to the site.

4.42 The gravel and sand pits shown by twentieth century maps near Wapsey's Wood are located by single HER references to the east and north-west of the site, although in reality (see HLC below) the areas of extraction cover the entire site (MBC24182; 0891800000 & MBC24285; 0901900000). These refer to the 1:10,000 OS map of 1973.

4.43 In this period, understanding of settlement, land-use and the utilisation of the landscape is enhanced by cartographic and documentary sources which can give additional detail to data contained within the HER.

4.44 The 1770 Thomas Jeffery's Map of Buckinghamshire (Fig. 4) shows the site area to the south of the Oxford Road and labels Wapsey's Wood but there is otherwise little detail.

4.45 The 1811 Ordnance Survey Drawing (Fig. 5) similarly labels Wapsey's Wood over the central areas of the site, with the homestead of Wapsey's itself to the south of the site. The site is divided by fields with Moat Farm to the east of the south-eastern corner. The historic farmstead of Hyde is depicted north-west of the western wider terminal for the propose southern access route.

4.46 The Bryant Map of Buckinghamshire (Fig. 6) shows the wide landscape arrangement and road network with Bulstrade to the east but other than showing the extent of Wapsey's Wood has little detail.

4.47 The 1838 to 1846 Tithe Maps Composite (Hedgerley, Farnham Royal and Beaconsfield) (Fig. 7) provides greater detail and is the first map to scale. The site and is access routes, which straddles three parishes, is divided into a series of small fields with Wapsey's Wood covering part of the western edge of the site and the access routes. Moat Farm is depicted to the east of the south-east corner of the site. The Hyde Farm is shown in detail to the north-west of the western end of the proposed southern access route, which was at that time within fields. 'Lower Pyebushes' is depicted within an area of rough vegetation to the northern side of the west extent of the proposed northern access route. The 'Duke of Somerset' is depicted across the western edge of the site.

4.48 The 1883 1:10,560 scale Ordnance Survey map (Fig. 8) shows no notable changes (although it shows the north-eastern arm of the formerly oval moat at Moat Farm to the east, but by the 1900 1:10,560 scale Ordnance Survey map the former field occupying the north-eastern area of the site is covered by Hither Warren Wood (Fig. 9).

4.49 The 1926 1:10,560 scale Ordnance Survey map (Fig. 11) shows all but the south-east corner of the main suite now as woodland (now also covering Cherry Tree Field on the north-west and Twentyone Acre Field in the centre of the site. The areas of proposed access routes to the west of Wapsey's wood were still occupied by fields some of which were crossed by streams. A field crossed by the western end of the proposed southern access route as shown as boggy ground.

4.50 There are no significant changes by the 1938 Ordnance Survey 1:10,560 scale map (Fig. 12) but a 1947-8 Aerial Photograph (Fig. 12) shows some quarry scarring within Wapsey's Wood, part of which crosses the proposed northern access route.

4.51 The 1960 1:10,000 scale Ordnance Survey map (Fig. 13) provides no further evidence for this apparent phase of minerals extraction but the woodland (plantations) have been cleared across the site leaving it as damp pasture.

4.52 A 1989 aerial photograph provided by Buckinghamshire HER (Fig. 14) then shows the very large extent of minerals extraction that took place across most of the main site and much of the route of the access roads to the west by this time. This includes the two lakes at the eastern edge of the site just west of Moat Farm and its Medieval moated area. It is possible that the photograph also shows the proposed northern route through Wapsey''s Wood as quarried but this is uncertain.

4.53 The 1999 1:10,000 scale Ordnance Survey (Fig. 15) consolidates the above extent of minerals extraction and infilling across the main site, with Gas Field now labelled at the north-west extent and an Electrical Generating Station labelled to the immediate east of the north-west projection of the main site area. Hachures show the areas of deeper cut eft after extraction in certain areas (including the lakes). The minerals extraction ended to the west with a straight north-south border with the still extant field to the west. The M40 is now also constructed to the south and there is a label showing the location of the aforementioned Roman pottery kilns find to its immediate south. A reprise of Wapsey's Wood is shown as fresh woodland plantation having previously been cleared (and possibly also quarried – see Fig. 14).

4.54 A 2003 Google Earth image (Fig. 16) shows a further westward expansion of the quarrying activities leaving only the western end of the proposed access routes as virgin ground .

4.55 The 1:10,000 scale 2006 Ordnance Survey (Fig. 17) now shows a large lake in the southern area of the main site although the western extent of the quarrying made clear by the 2003 image is not mapped. The north-east arm of the Medieval moat to the east of the site is also still shown.

4.56 The 2010 Google Earth image (Fig. 18) shows this quarrying clearly which leaves even less of the western end of the proposed northern and southern access routes as virgin land.

4.57 2016 and 2025 Google Earth images (Figs 19 and 20) show soke reinstatement of ground and regeneration of woodland but no significant changes.

4.46 In summary, the mapping and aerial images show a former agricultural landscape with woods replaced from the mid-later 20th century onwards by minerals extraction, landfill with some regeneration of scrubby vegetation and plantations.

Historic Landscape Characterisation

4.47 HLC data (Fig. 2c) for the site records that almost the entirety of the study site is categorised as 'Large scale mineral extract which has wiped away an interesting sinuous (possibly coaxial field systems) and some ancient woodland' (HBC10017 on Fig. 2c). The Period given in the HER is a generalised 19th Century to Modern - 1885 AD to 1950 AD (although the above historic map regression and historic landfill records (Appendix 2) suggest a later date.

4.48 There are some minor exceptions to this truncation. One is the extreme west end of the southern access route where the HLC is HBC7131 and then HBC7138. The former relates to short section of the proposed route through 'Woodland Coniferous Plantation' known as Green Broom' of 'Modern - 1950 AD to 1999 AD' origin. The latter at the western end of the proposed route (HBC7138) to a small part of a much larger area of Enclosure field-scape dated in form to by HLC to the 'Medieval to 18th Century - 1066 AD to 1774 AD'.

4.49 The other possible exception to truncation is where the northern access route to the main site is aligned over a current rough the current rough (dirt) track through Wapsey's Wood. Here the HLC is HBC10018 for a Broad Type of woodland relating to secondary woodland of 18th Century to 19th Century (1774 AD to 1885 AD) origin.

LiDAR data

4.50 A review of Environment Agency DTM LiDAR data to 1m resolution (Fig 3) shows the entire main site area and almost the entirety of the proposed access routes, as comprising irregular topography inlcuding bunds and hollows that confirm the site visit and data sources (Historic Landfill records and the HLC). Based on this and the mapping all but the extreme south-west extent of the red line at western end of the southern linear access route, has been subject to Mineral Extraction.

Assessment of Significance

4.51 Existing national policy guidance for archaeology (the NPPF as referenced in section 2) enshrines the concept of the 'significance' of heritage assets. Significance as defined in the NPPF centres on the value of an archaeological or historic asset for its 'heritage interest' to this or future generations.

4.52 The Templars' site at Moat Farm, Hedgerley (List Entry 1006922; SU 97697 88312) lies at the eastern edge of the Site. Both slight earthworks and buried archaeological remains survive at the site and its national importance although, as noted form the site visit, the earthworks elements are now difficult to understand and interpret at ground level and therefore its high significance relates to its likely association with historical documents and its evidential potential (as illustrated by the 1979 excavations) to hold buried archaeological information of the form, date, use along with its economic and social status.

4.53 There are no known non-designated archaeological assets within the site or that may be affected by the proposals.

4.54 A number of non-designated assets are recorded on the HER from within the study area which provide context of the former potential of the study site itself prior to the minerals extraction landfill that will have removed that potential. These aspects are detailed in Section 3. The removal of that potential, with the possible exception of the extreme western end of the southern access route, is tabulated below.

4.55 It appears that any surviving archaeological remains within the extreme western end of the southern access route, would, in the context of the Secretary of State's non-statutory criteria for Scheduled Monuments (DCMS2013), most likely be of overall low/local significance.

4.56 As identified by desk-based work, archaeological potential by period and the likely significance of any archaeological remains which may be present is summarised in table form below:

Period	Identified archaeological potential	Likely archaeological significance if present
Prehistoric	Nil (with possible exception of extreme west end of the southern access route and the section of the northern access through Wapsey's Wood)	Low (Local)
Iron Age/Roman	Nil (with possible exception of extreme west end of the southern access route and the section of the northern access through Wapsey's Wood)	Low (Local)
Anglo-Saxon/Early Medieval	Nil (with possible exception of extreme west end of the southern access route and the section of the northern access through Wapsey's Wood)	Low (Local)
Medieval	Nil (with possible exception of extreme west end of the southern access route and the section of the northern access through Wapsey's Wood)	Low (Local)
Post medieval & Modern	Nil ((with possible exception of extreme west end of the southern access route and the section of the northern access through Wapsey's Wood)	Low (Local)

5 Site Conditions, The Proposed Development & Review of Potential Development Impacts on Archaeological Assets

Site Conditions

5.1 The study site consists of a former minerals extraction site between the Oxford Road (A40) and the M540 (see Figs. 1 & 3-20 and Plates 1-10).

5.2 The site visit confirmed the uneven topography created by the quarrying. In accordance with the above minerals extractions the study site comprises artificially undulating land with deeper quarried zones still apparent within the north-west (current works area) and south-eastern (inlcuding lakes) areas, along with various bunds (e.g. along part of the eastern edge of the site). The higher areas of land surface is littered with gravel and flint nodules with relatively recent vegetation growth indicating landfill.

5.3 Past and present agricultural land use is likely to have had very severe impact on any former archaeology that may have survived on the site. The only possible exceptions are the extreme south-western area of the red line at the western end of the southern access route, which is within a small plantation and a field area.

5.4 The severe impact of quarrying; removing wholesale any underlying archaeological features clearly leaves almost no retained archaeological potential for the vast majority of the site.

5.5 As described in the GPA3 assessment of the Medieval moated site at Moat Farm (below) the Scheduled Monument was visited on the site visit of 24th July. The field comprises rough pasture (then hay length) so it was difficult to assess for low earthworks but was low-laying with tall trees to the east and north sides providing an enclosed feel with no open views towards the site (se Plates 9 and 10). The plates illustrate views looking west and south-west across the Scheduled Monument with high trees at and east of the east edge of the site screening any intervisibility from ground level with the site. The proximity of the trees to the monument increases the effectiveness of this screen.

Proposed Development

5.6 The study site is being reviewed for a Data Centre. The proposals are as follows:

ENTER WHEN PROVIDED

Review of Potential Development Impacts on Archaeological Assets

Designated Assets

5.7 Development on the site would also not impact on any other more distant designated archaeological assets due to woodland and built environment screening and rolling intermediate topography.

5.8 The only designated archaeological asset with potential to be affected by the proposals is the Medieval Templars' site at Moat Farm, Hedgerley (Liset Entry 1006922; SU 97697 88312) lies at the eastern edge of the Site.

5.9 Due to close proximity to the site's eastern boundary the setting of this monument was considered to require a GPA3 (Good Practice Advice Note 3) (Historic England 2017) setting assessment.

5.10 The following GPA3 setting assessment is provided (this remains preliminary pending provision of a Landscape and Visual assessment Viewpoint taken from the east side of the Scheduled Monument across westwards across the scheduled area to towards the proposed development and showing the proposed structure/s as wireframe);

Introduction and significance including GPA 3 step 1 (identification of asset that may be effected)

5.11 The background of the monument and its high significance (in terms of the high evidential potential of its buried remains) is discussed above in the Introduction and 'Medieval period' text in Section 4. As discussed in Section 4 the Templars Preceptory here dated from the 13th Century (founded pre-1276) to 14th Century (dissolved 1308-12) and was a Medieval Manor House from the 14th to 17th century following which it was used as a farm. It is notable that the earthwork remains of the moat, apart from a short section of its northern/ north-eastern arm are, however, generally very poorly preserved as above ground remnants (see LiDAR provided as Figure 3).

Setting Step 2: Assessment of whether and what contribution the setting makes to the significance of a heritage asset.

5.12 The farm complex at Moat Farm to the east of the monument forms an important aspect of its setting but firmer landscape setting to the east, north and west of the farm has been severed and removed by 20th century minerals extraction, whilst is setting to the south has been severed by the construction of the M40. As such very little of the formerly contemporary Medieval landscape survives. As such only the Moat farm complex and the scheduled area itself and some of the land south of the M40 (although altered by post Medieval enclosure) are physical survivals of its former setting. Setting therefore contributes only slightly to the significance of the monument, with most of its importance vested in its below ground archaeological remains, the in situ fragment of its moat and its historical association as a Templars Preceptory.

Setting Step 3: Assessing the effects of Proposed Development on the significance of a heritage asset

5.13 The monument cannot be seen, or perceived as a moated site and former Templars Preceptory, from the proposed development site. No significant views of it would be blocked by the development. The walkover visits confirmed that inter-visibility with the proposed development site is generally restricted by trees within the western area of the monuments and within the eastern edge of the proposal site.

5.14 Setting also includes historical associations, and at least the eastern area of the site (and probably all of it) probably formerly comprised an element of its farmed landscape associated with the Manor. However, the total removal of the former landscape within the site by minerals extraction, right up to the edge of the scheduled area means that there is no longer any association of the site with the manorial moated site.

5.15 Therefore, in terms of setting related effects the site is bordered on its eastern side by densely planted tall deciduous woodland which towers over the monument and given the monuments' proximity to the trees almost certainly means there would no invisibility of the proposed Data Centre buildings from the monument.

5.16 This initial setting assessment within the DBA will need to be updated in due course following design freeze in relation to scale and massing and proposed design/landscape (e.g. additional planting) mitigation if required. This aspect requires the Landscape consultants for the project to provide ZTV, wireframes and potentially visualisations to demonstrate any inter-visibility.

Setting Step 4. Explore ways to maximise enhancement and avoid or minimise harm

5.17 Subject to production of a wireframe, as above, further potentially bunded vegetational screening between the new Data Centre buildings/s and the scheduled monument, may be beneficial to increase the effectiveness of the existing tree screening (especially in the winder months).

Non Designated Assets

5.18 A combination of LiDAR, Ordnance Survey mapping, historic landfill mapping, Historic Landscape Characterisation (HLC) (held by the Buckinghamshire HER) and site visit by the author, have confirmed that almost all of the site has been severely truncated by minerals extraction, with later landfill and landscaping creating an undulating entirely modern formation topography. These historic activities would have removed any buried archaeology assets. As such the groundworks associated with the construction phase of a scheme, including site preparation, excavation for roads, foundations, services and landscaping, are not anticipated to have any impact on buried archaeology for the almost all of the site.

5.19 There is a minor exception to this high level of truncation in terms of the south-westernmost area of the red line. Here the western end of the proposed southern access route to the site and the contiguous area at the south-western extent of the red line, appear to comprise natural topography (see Fig. 3 HLC map which shows this small area of extant farmland enclosure and 'Green Broom' wood here). The remainder of the access routes and the main site area commensurate with 'industry' on the HLC and are mainly within landfill (as shown by the above sources, including LIDAR). It appears that any surviving archaeological remains within the access routes, in the context of the Secretary of State's non-statutory criteria for Scheduled Monuments (DCMS 2013), most likely be of overall low/local significance.

5.20 In terms of unknown archaeological assets and based on current evidence, prior to the above truncation a moderate to high archaeological potential would have been identified at the study site for Prehistoric and Iron Age/ Roman remains, and a low potential for all other past periods of human activity. In the light of minerals extraction this conclusion may only apply to the extern western end of the proposed access route.

5.21 It appears that any surviving archaeological remains within the study site boundary (at the above location) would, in the context of the Secretary of State's non-statutory criteria for Scheduled Monuments (DCMS2013), most likely be of overall low/local significance and no more than moderate/regional significance.

5.22 Given almost all of the site has no potential no further archaeological work is recommended. BCAS may recommend some evaluation or mitigation archaeological work at the western extent of the south access route but given the restricted area this could be covered by a planning Condition.

6 Summary & Conclusions

6.1 This archaeological desk-based assessment has been prepared by RPS on behalf of Montagu Evans. The subject of this archaeological assessment is Land at Wapsey's Wood near Hedgerley and to the west of Gerrards Cross in south Buckinghamshire. The site consists of former minerals quarry land parcels to the north of the M40 Motorway.

6.2 The assessment provides a review of the site`s below-ground archaeological potential and addresses the information requirements of national and local planning policy. The proposals are for a Data Centre within the main site area and two access routes. The main site area has been used for 20th century and later minerals extraction as shown by historic mapping, historic landfill records and Historic Landscape Characterisation presented in this report. This was also evident during the site visit conducted in July 2025 for this assessment.

6.3 In terms of relevant designated heritage assets, no World Heritage Sites, Scheduled Monuments, Historic Battlefields or Historic Wrecks lie within the vicinity the study site. 'Templars' site at Moat Farm, Hedgerley' Scheduled Monument (List Entry 1006922; SU 97697 88312) lies immediately east of the eastern edge of the study site. An initial ('Good Practice Advice Note 17' (GPA3; Historic England 2017)) assessment of any potential setting related impacts to the Scheduled Monument from the proposed development has been undertaken. This is informed by the scale and massing of the proposals, the site visit and the historic data sources, which indicate that although the Scheduled area abuts the proposal site's eastern boundary, there can be no associated below ground archaeological survival within the site due to adjacent minerals extraction. In addition, the Scheduled Medieval moated site's remaining earthwork and it's associated below ground remains, are situated within a low lying grassed paddock surrounded to the west (within the east edge of the site) and north, by tall trees, such that, providing these trees are retained by the development they would screen views of the Data Centre. This conclusion is subject to provision of a proposed development wireframe to graphically demonstrate this screening, based on a viewpoint from the Scheduled Monument.

6.4 A combination of LiDAR, Ordnance Survey mapping, historic landfill mapping, Historic Landscape Characterisation (HLC) (held by the Buckinghamshire HER) and site visit by the author, have confirmed that almost all of the site has been severely truncated by minerals extraction, with later landfill and landscaping creating an undulating entirely modern formation topography. These historic activities would have removed any buried archaeology assets. As such the groundworks associated with the construction phase of a scheme, including site preparation, excavation for roads, foundations, services and landscaping, are not anticipated to have any impact on buried archaeology for the almost all of the site.

6.5 There is a minor exception to this high level of truncation in terms of the south-westernmost area of the red line. Here the western end of the proposed southern access route to the site and the contiguous area at the south-western extent of the red line, appear to comprise natural topography (see Fig. 3 HLC map which shows this small area of extant farmland enclosure and 'Green Broom' wood here). The remainder of the access routes and the main site area commensurate with 'industry' on the HLC and are mainly within landfill (as shown by the above sources, including LIDAR). It appears that any surviving archaeological remains within the access routes, in the context of the Secretary of State's non-statutory criteria for Scheduled Monuments (DCMS 2013), most likely be of overall low/local significance.

6.6 The HER for the surrounding study area includes multi-period archaeological remains including Roman kilns c.120m to the south and the Moat Farm monument to the immediate east. In addition, archaeological investigations at Slade Farm, Hedgerley Lane and at the M40 Beaconsfield motorway services, have identified evidence of Neolithic, Romano-British and later inhabitation of the landscape. There is a low potential that any new groundworks required at these locations may

encounter archaeology, most likely of low (local) significance if present. As the impact on archaeology, if present, would be a restricted in area, the effect to archaeology is unlikely to be widespread or of significance (in EIA terms). Buckinghamshire County Archaeological Service (BCAS) will advise on whether any further mitigation is required for the limited currently untruncated areas.

Sources Consulted

General

British Library

Leicestershire Historic Environment Record

The National Archive

Internet

British Geological Survey – http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

British History Online – http://www.british-history.ac.uk/

Domesday Online – http://www.domesdaybook.co.uk/

Historic England: The National Heritage List for England http://www.historicengland.org.uk/listing/the-list/

National Planning Policy Framework – https://www.gov.uk/government/publications/national-planning-policy-framework--2

Portable Antiquities Scheme – www.finds.org.uk

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Cauvain, S. and P. 1988. 'EXCAVATIONS AT MOAT FARM, HEDGERLEY', IN RECS OF BUCKS 30 PP183-187. Vol 30

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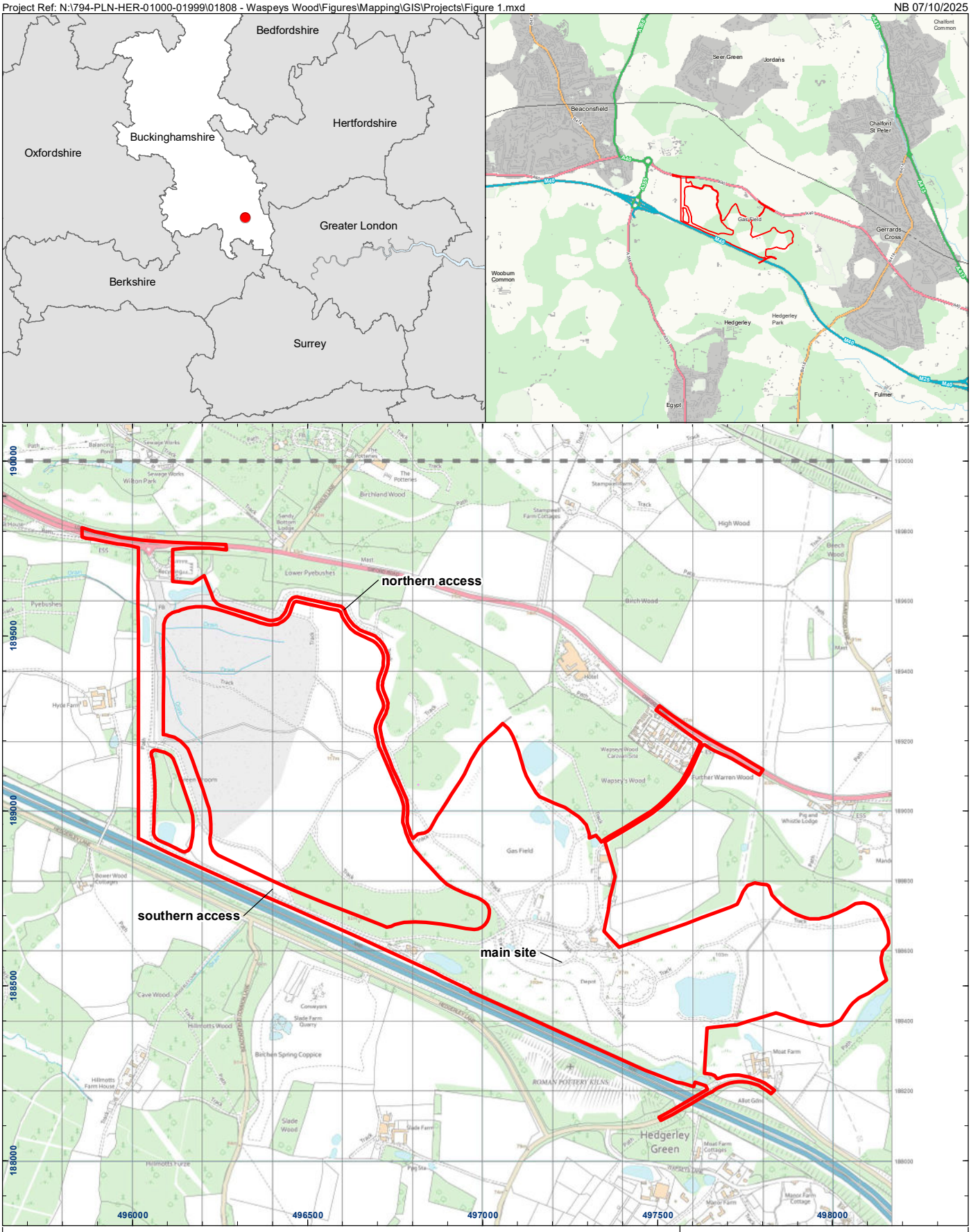
Ministry of Housing, Communities & Local Government Planning practice guidance, 2019, Historic environment

Cartographic & Imagery

1770 Thomas Jeffery's Map of Buckinghamshire
1811 OSD
1824 Bryant Map of Buckinghamshire
1838 to 1846 Tithe Maps Composite (Hedgerley, Farnham Royal and Beaconsfield)
1883 Ordnance Survey (1:10,560)
1900 Ordnance Survey (1:10,560)
1926 Ordnance Survey (1:10,560)
1938 Ordnance Survey (1:10,560)
1947-8 Aerial Photograph
1960 Ordnance Survey (1:10,000)
1989 Aerial Photograph
1999 Ordnance Survey (1:10,000)
2003 Aerial photograph (Google Earth)
2006 Ordnance Survey (1:10,000)
2010 Aerial photograph (Google Earth)
2016 Aerial photograph (Google Earth)
2025 Aerial photograph (Google Earth)

Figures



Site Boundary

N

0 100 200 300m

Scale at A4: 1:15,000

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Figure 1

Site Location

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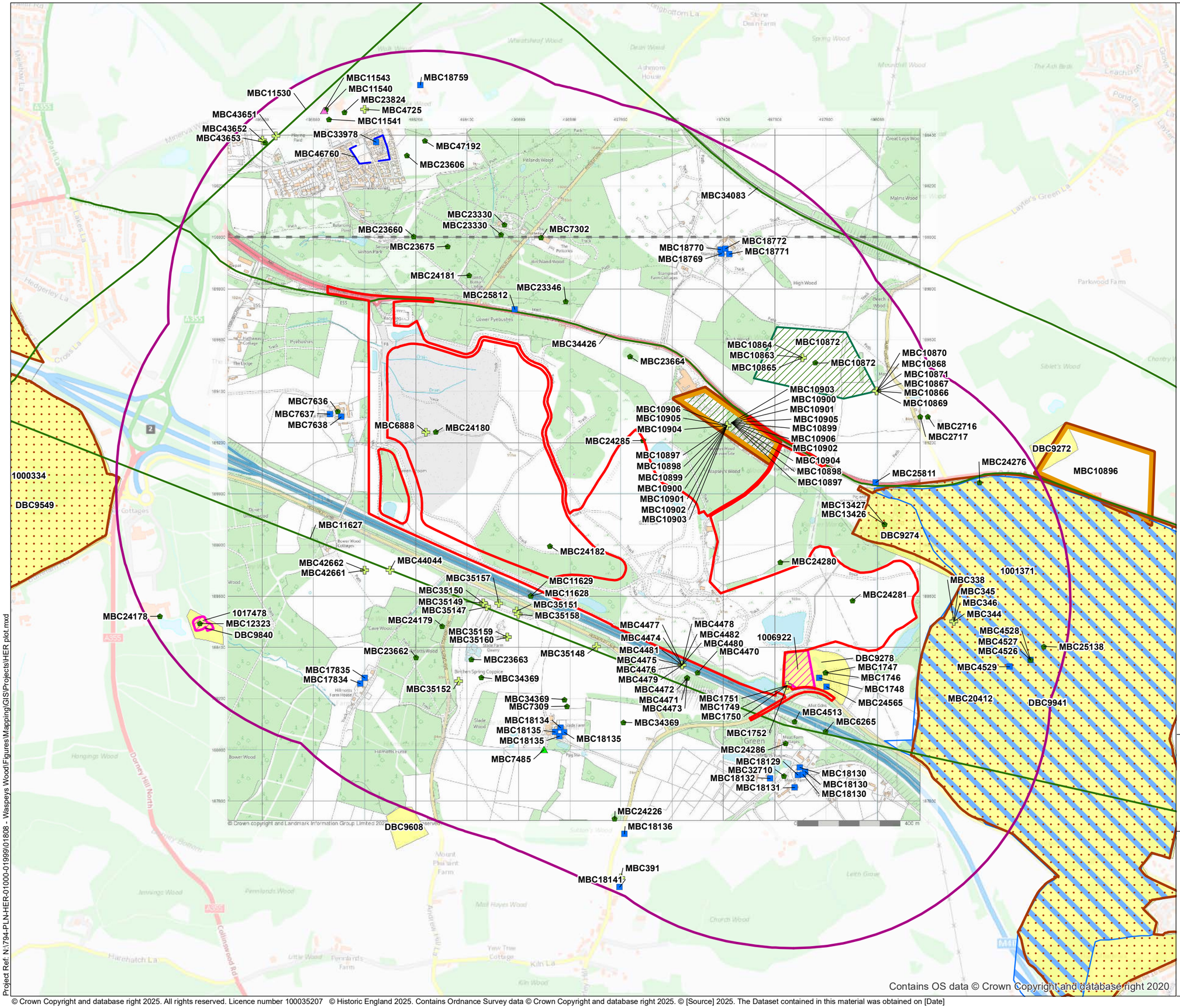

Legend

- Site Boundary
- 1km Search Buffer

Designated Heritage Assets:

- Scheduled Monuments
- Registered Park and Gardens

Non-designated Heritage Assets:

HER Records Points

- Monuments
- Findspots
- Buildings
- Landscape
- Place

HER Records Lines

- Monuments
- Buildings

HER Records Polygons

- Monuments
- Findspots
- Landscape
- Archaeological Notification Areas

NB: Entire site and surrounding area is covered by MBC7389, MBC7414, MBC7458 and MBC7483 general background information

N

0 100 200 m

Scale at A3: 1:14,000

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Figure 2a

HER Records Plot

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EBC18427
EBC18444
EBC18662
EBC18661
EBC18642
EBC17163
EBC16296
EBC16297
EBC16296
EBC17168
EBC17168
EBC16815
EBC13211
EBC17163
EBC17692
EBC17693
EBC18459
EBC10798
EBC11032
EBC16298
EBC16299
EBC16916
EBC16770
EBC16636

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Legend

- Site Boundary
- 1km Search Buffer

Previous Archaeological Work:

- HER Events Points
- HER Events Lines
- HER Events Polygons

N

0 100 200 m

Scale at A3: 1:14,000

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Figure 2b

HER Events Plot

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Legend

- Site Boundary
- 1km Search Buffer

Previous Archaeological Work:

- Civic
- Communications
- Enclosure
- Industrial
- Land Use
- Open (unenclosed) Land
- Parkland
- Recreation
- Settlement
- Woodland

N

0 100 200 m

Scale at A3: 1:14,000

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Figure 2c

Historic Landscape Characterisation (HLC) Plot

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Legend

Site Boundary

LiDAR DATA

Source:
Environment Agency

Data Type: DTM

Resolution: 1m

Date Captured:
18.02.2021 - 18.04.2021

Processing:
Multi-direction Hillshade overlaid on simple Local Relief Model

N

0 165 330 m

Scale at A3: 1:8,000

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Figure 3

LiDAR Plot

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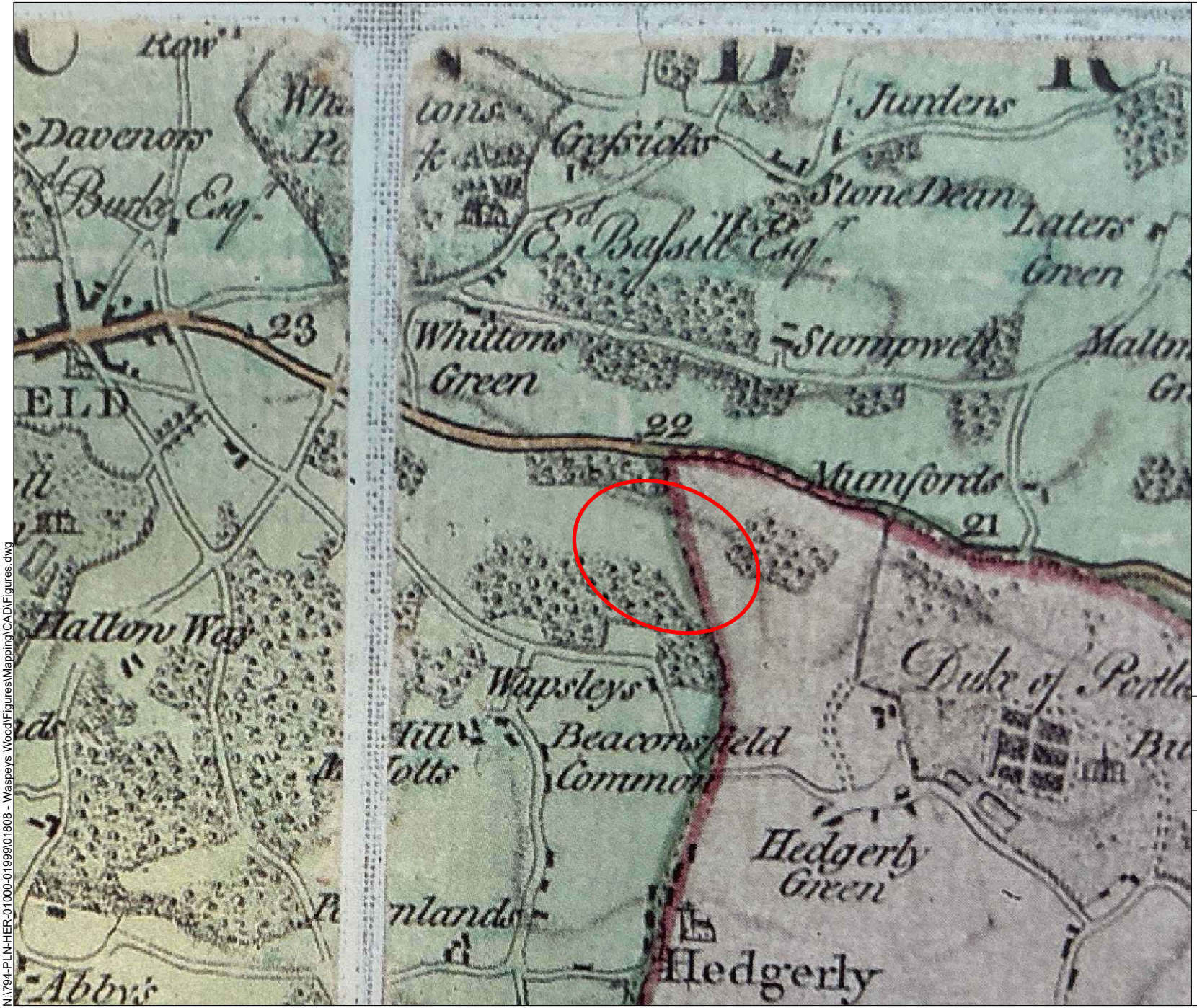

Approximate site location

N

Not to Scale
Illustrative Only

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Figure 4

1770 Thomas Jeffery's Map of Buckinghamshire

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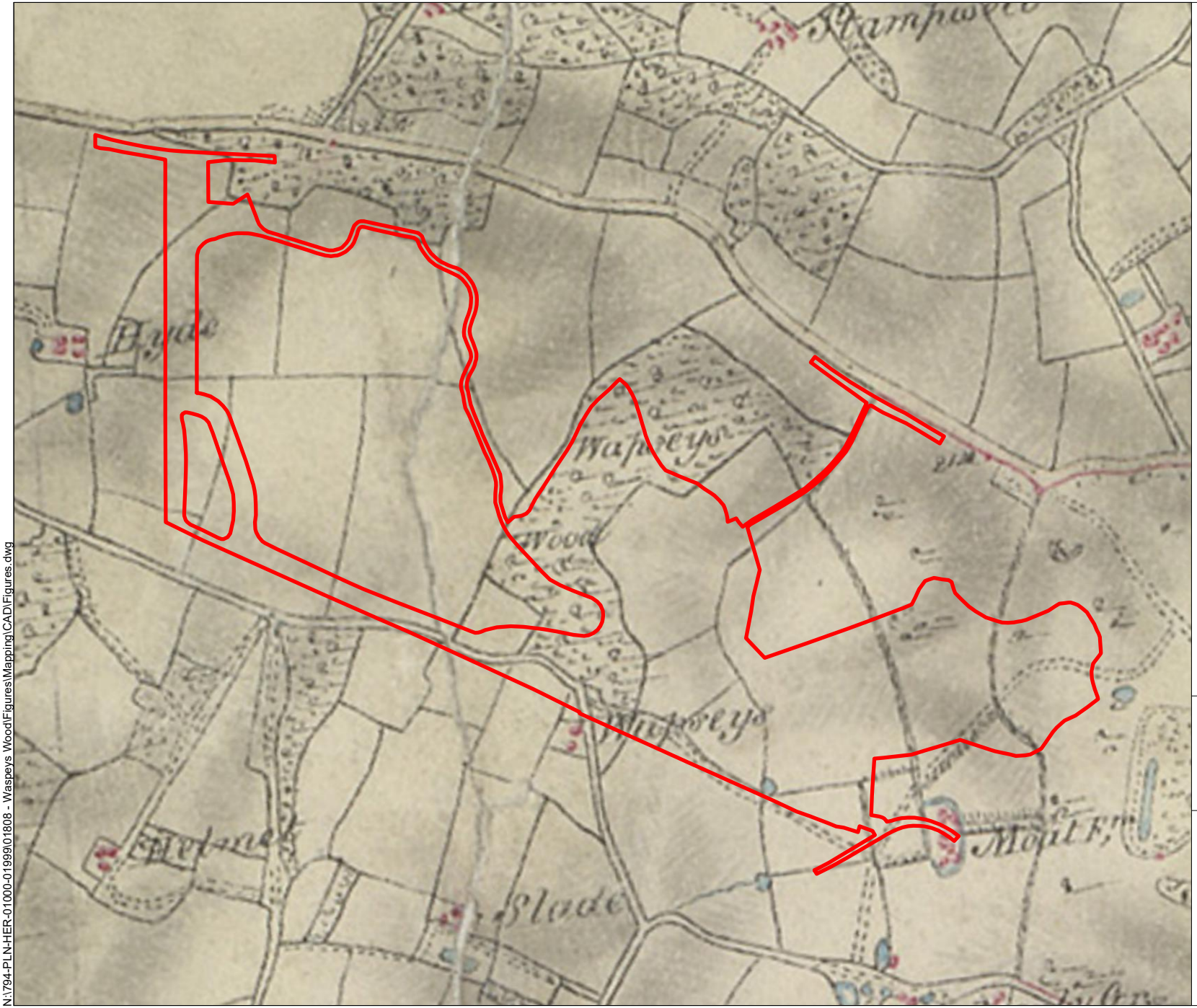

Site Boundary (approximate)

N

0 100 200m

Scale at A4: 1:12,500
(approximate)

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Figure 5

1811 Ordnance Survey Drawing

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Approximate site location

N

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Figure 6

1824 Bryant Map of Buckinghamshire

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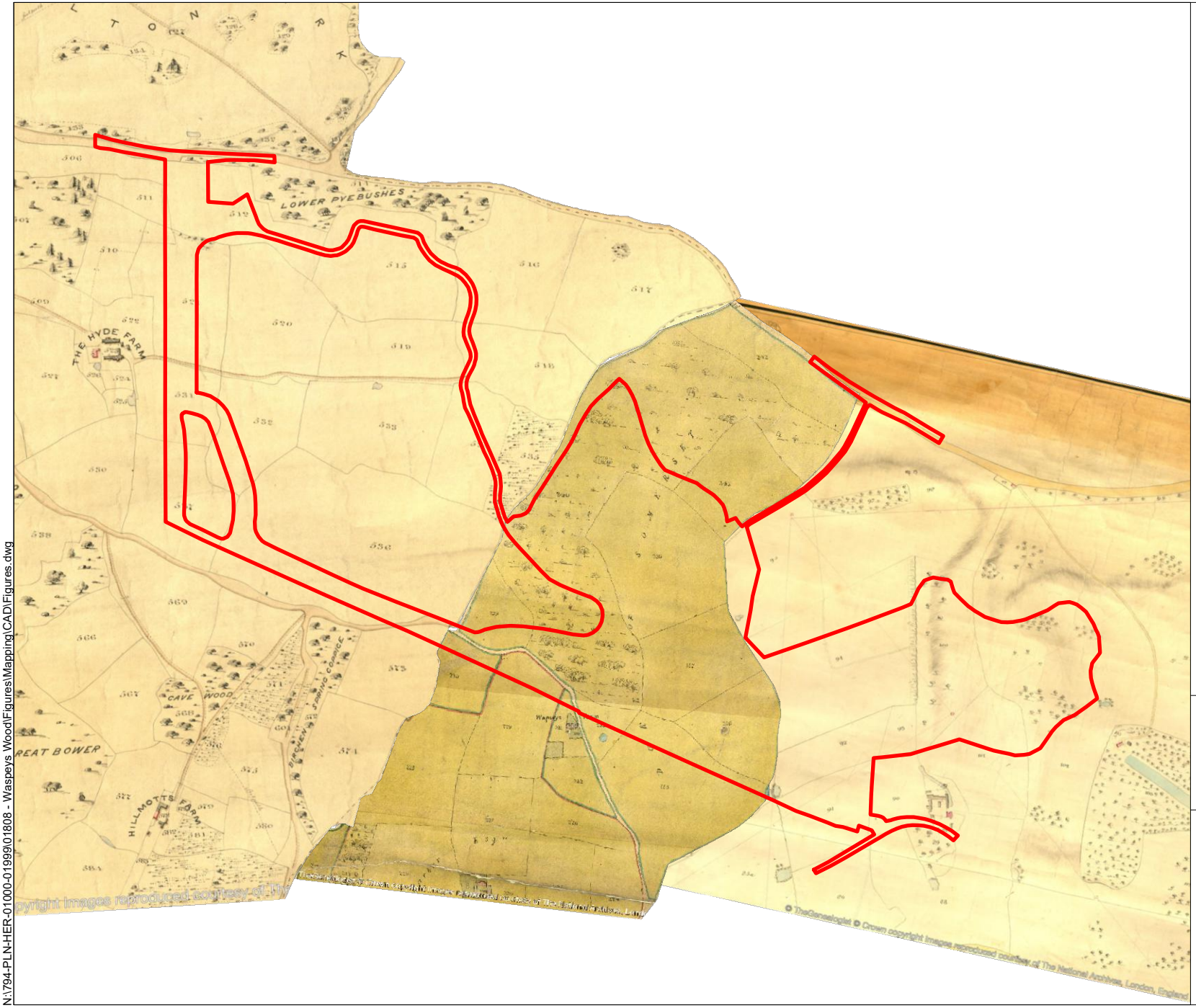

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 7

1838 Hedgerley, 1841 Farnham Royal and 1846 Beaconsfield Tithe Maps

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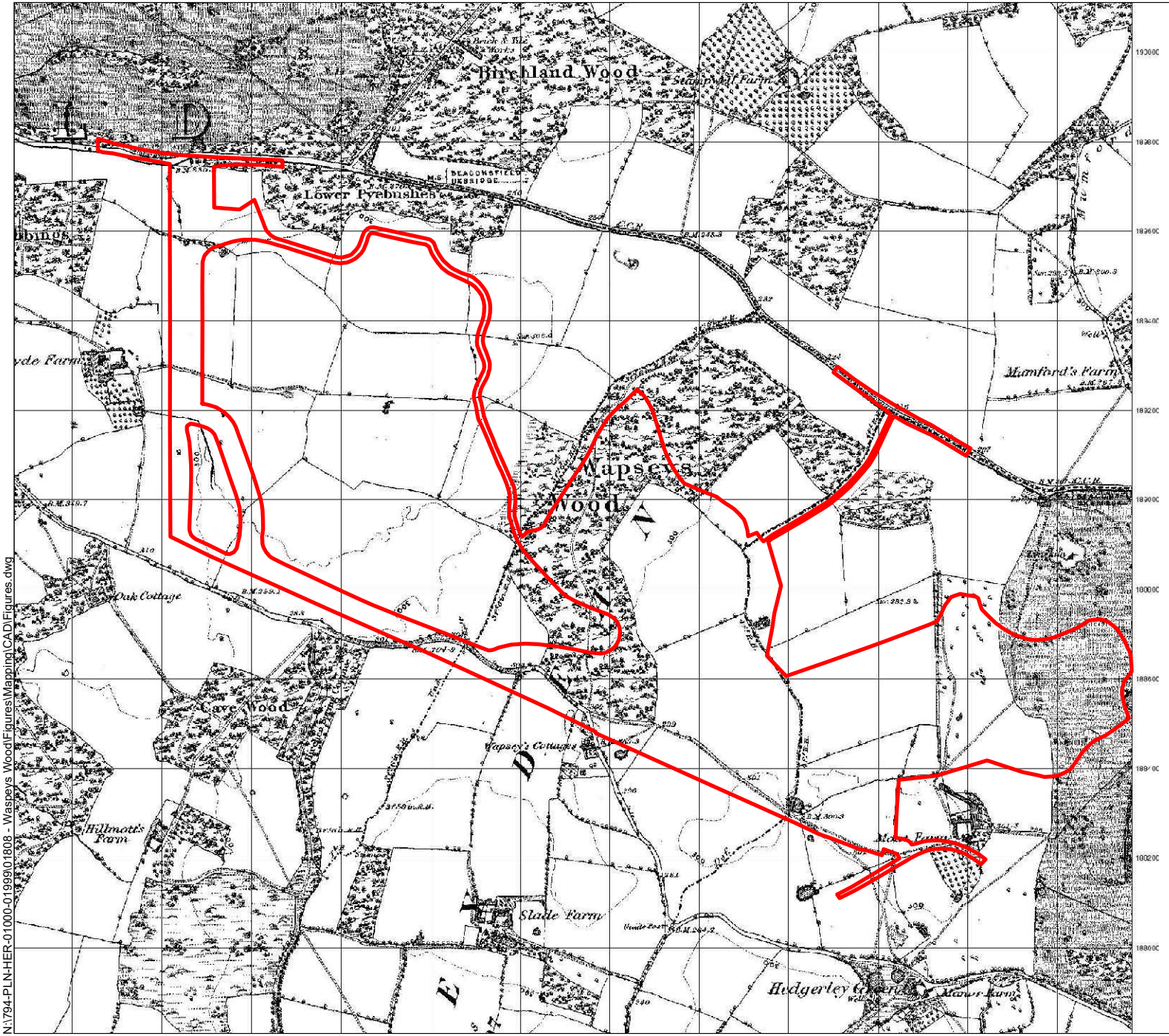

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 8

1883 Ordnance Survey Map

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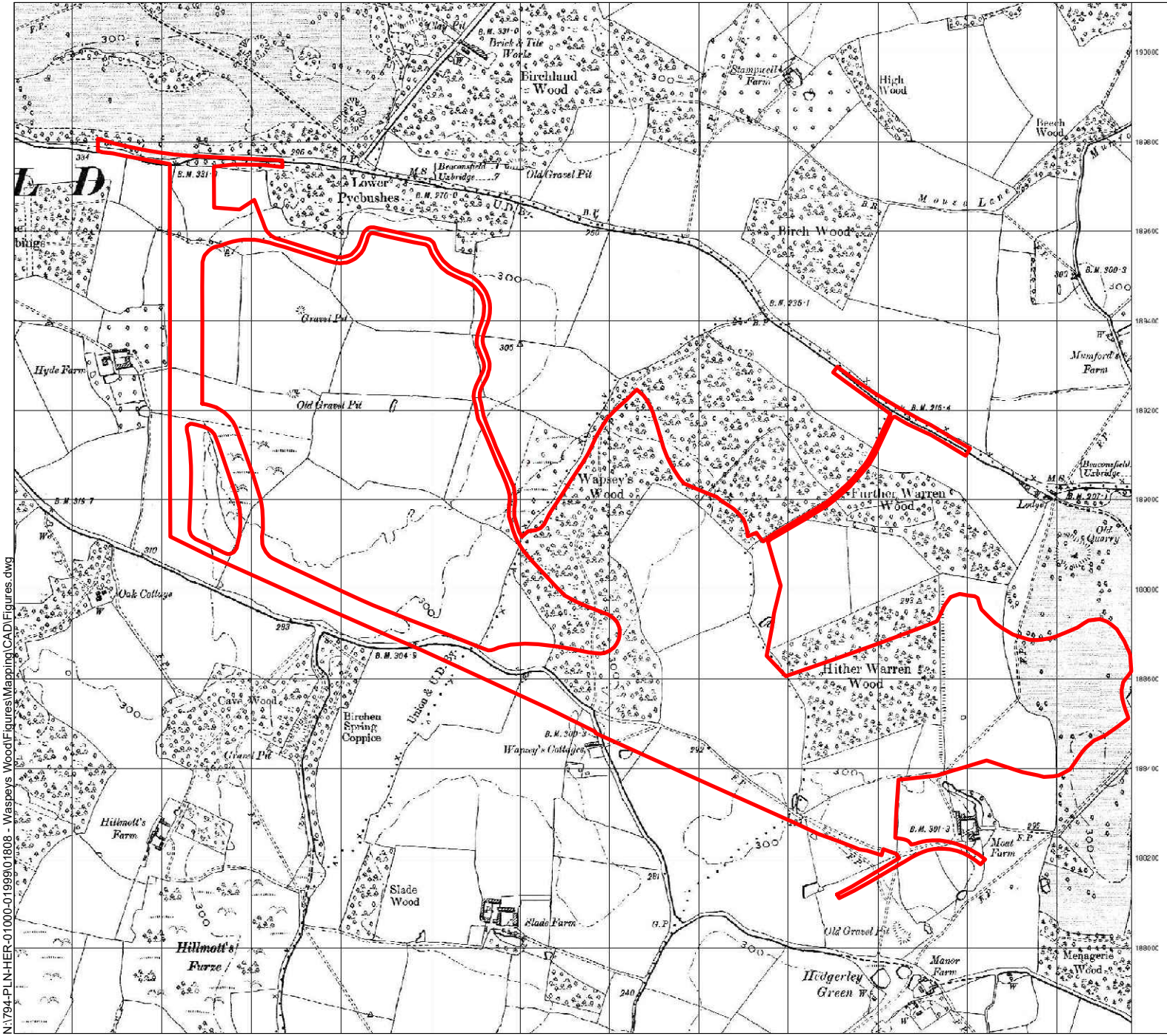

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 9

1900 Ordnance Survey Map

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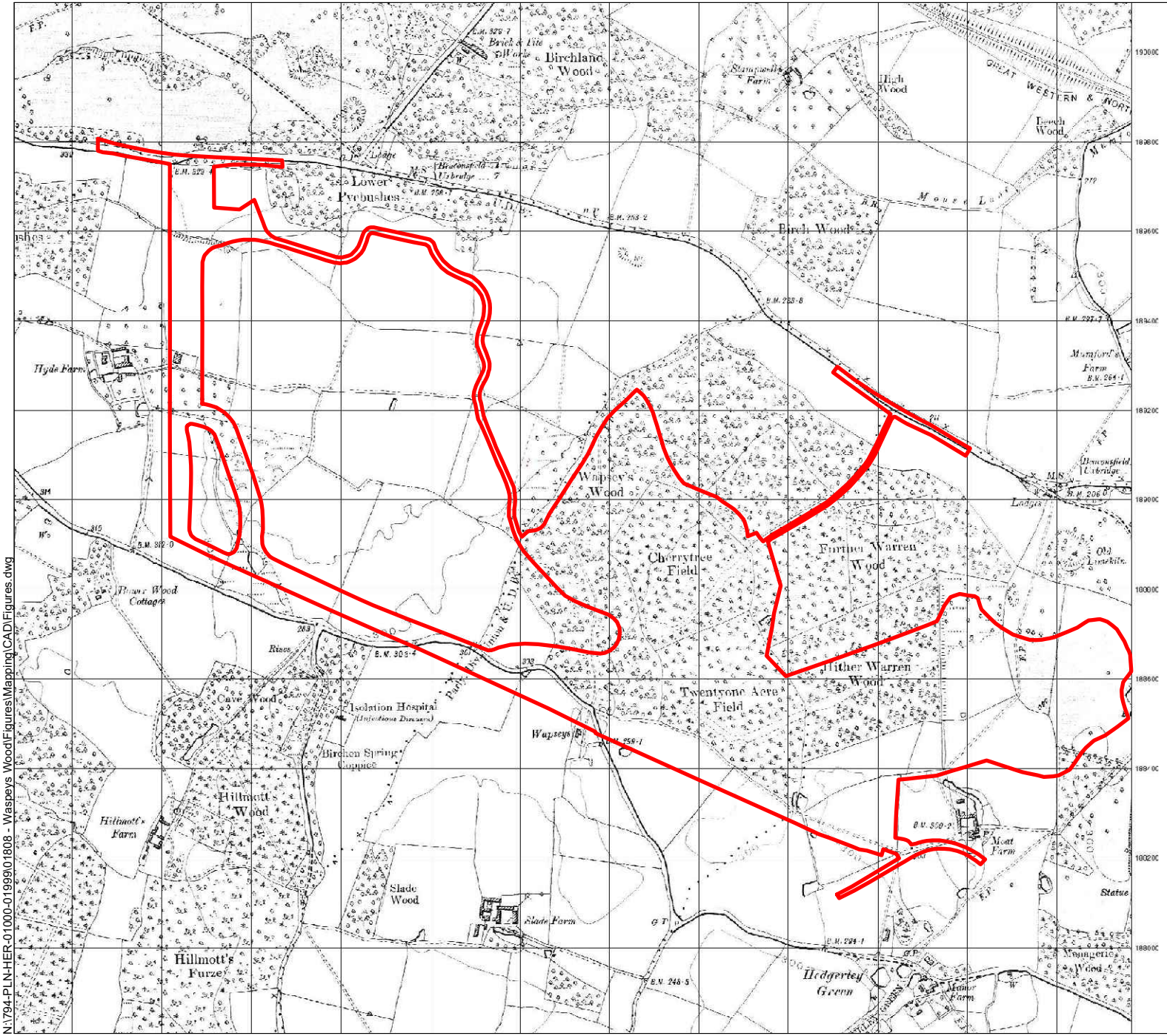

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 10

1926 Ordnance Survey Map

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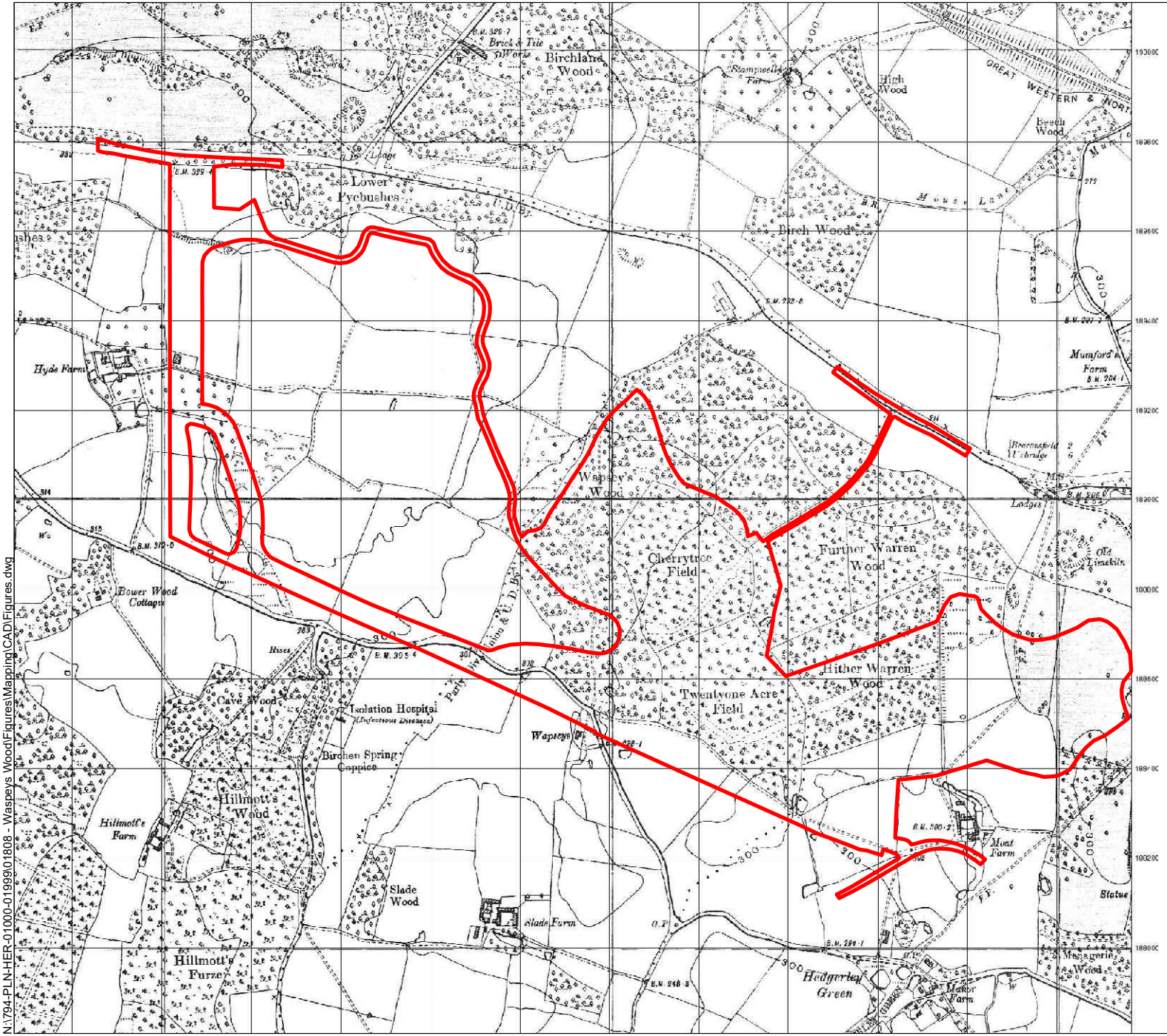

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 11

1938 Ordnance Survey Map

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Site Boundary

N

0 100 200m

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Figure 12

1947-1948 Aerial Photograph

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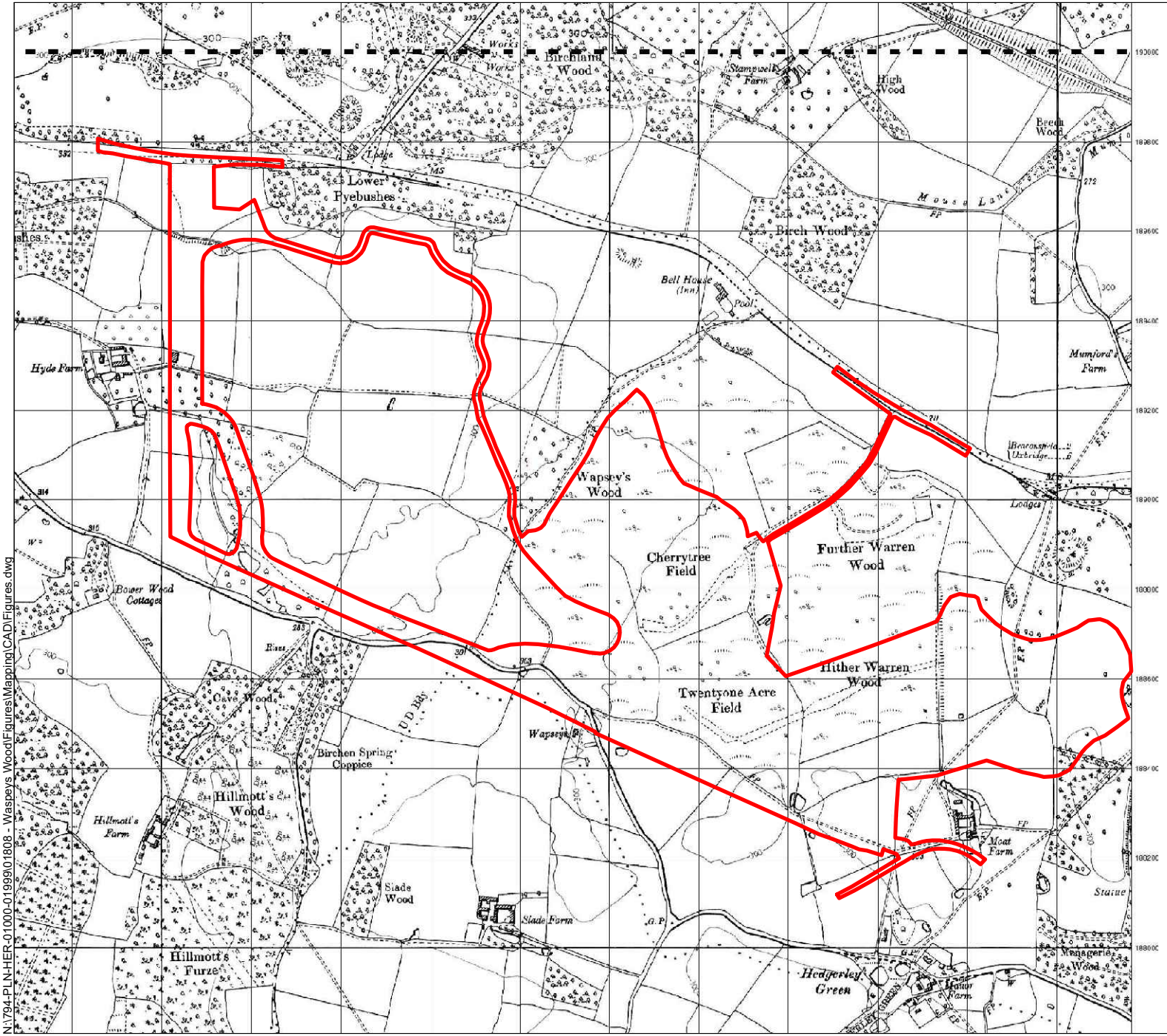

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Figure 13

1960 Ordnance Survey Map

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Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 14

1989 Aerial Photograph
(Buckinghamshire HER)

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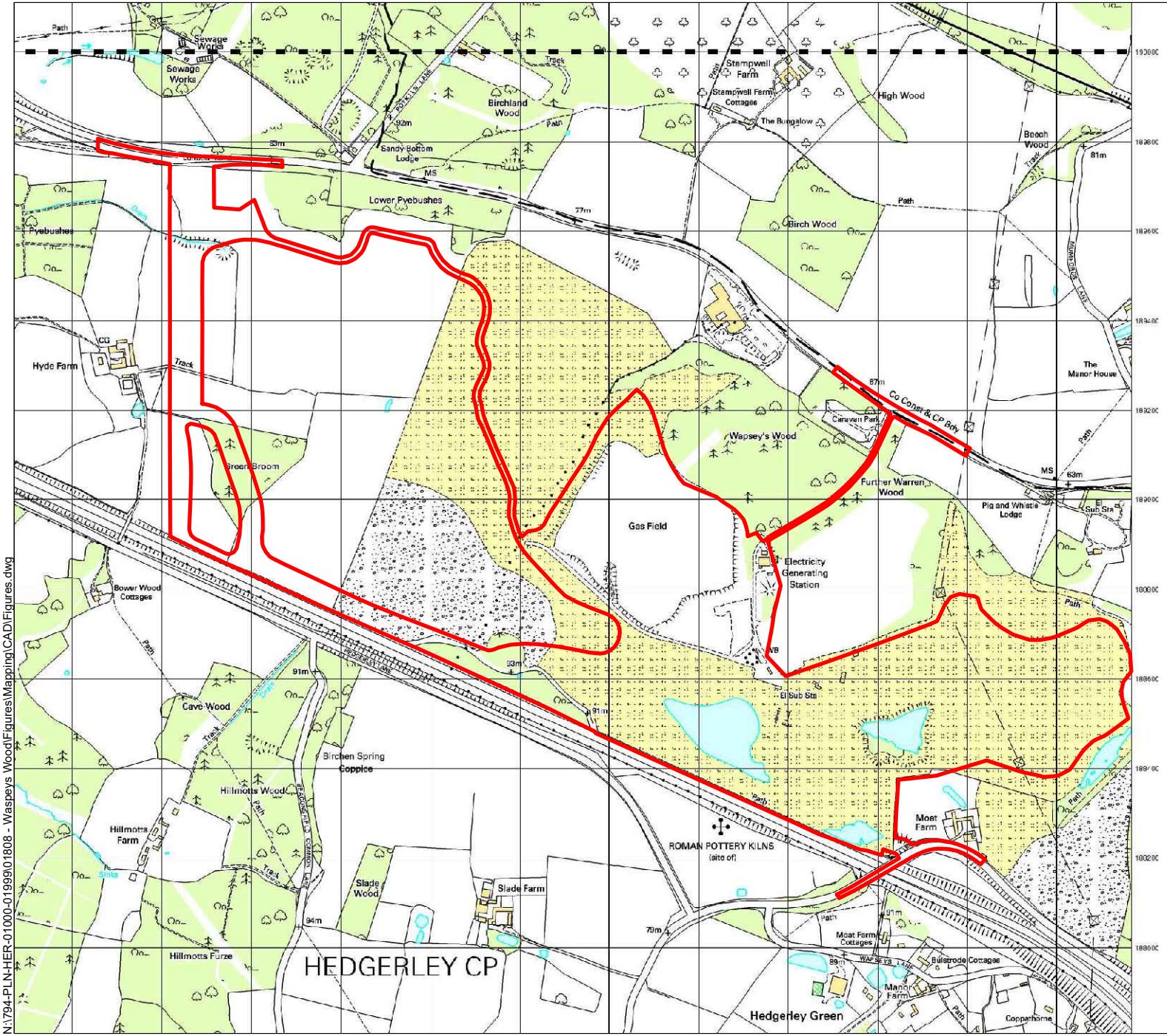

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Figure 15

1999 Ordnance Survey Map

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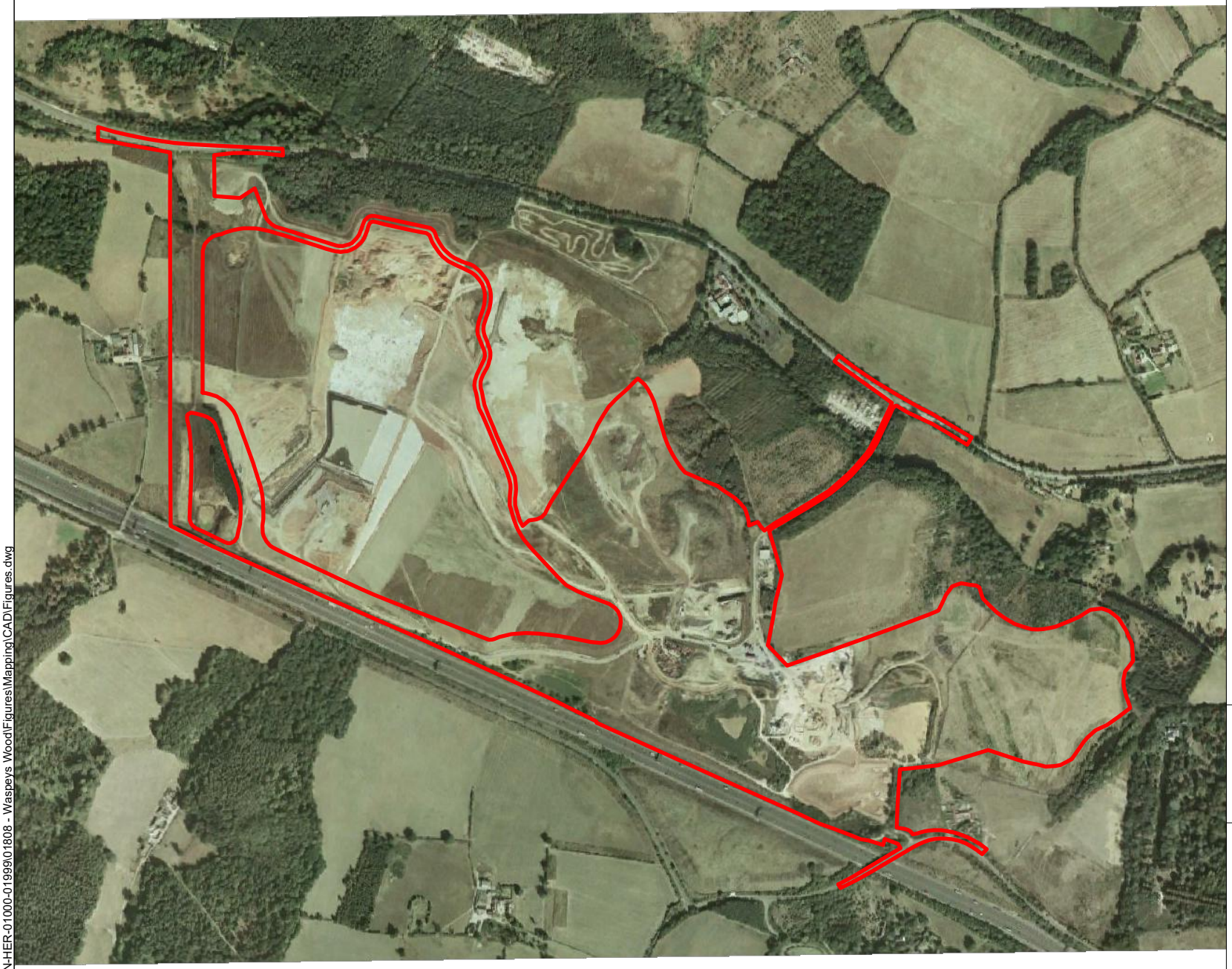

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 16

2000 Aerial Photograph (Google Earth)

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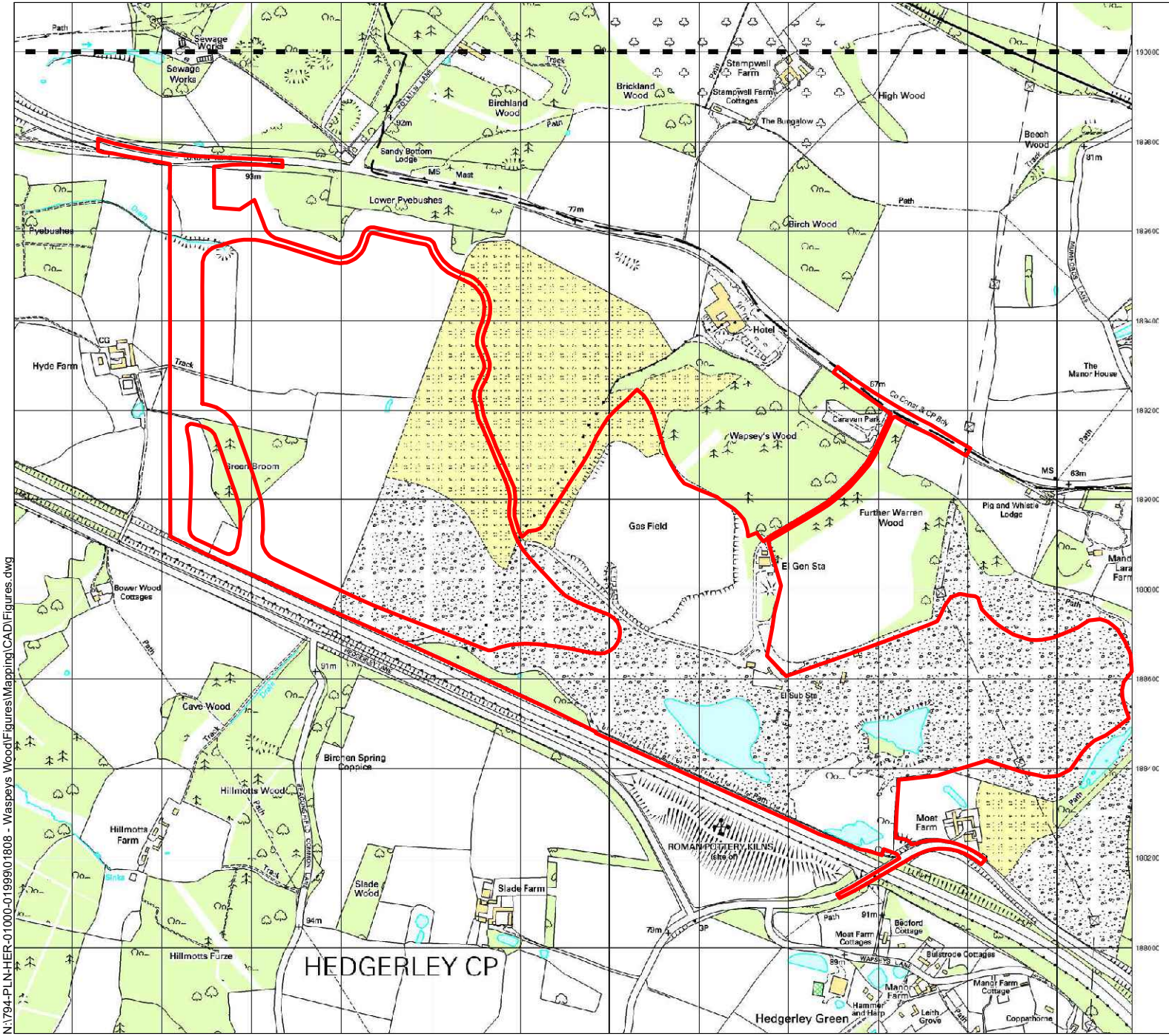

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Figure 17

2006 Ordnance Survey Map

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Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 18

2010 Aerial photograph (Google Earth)

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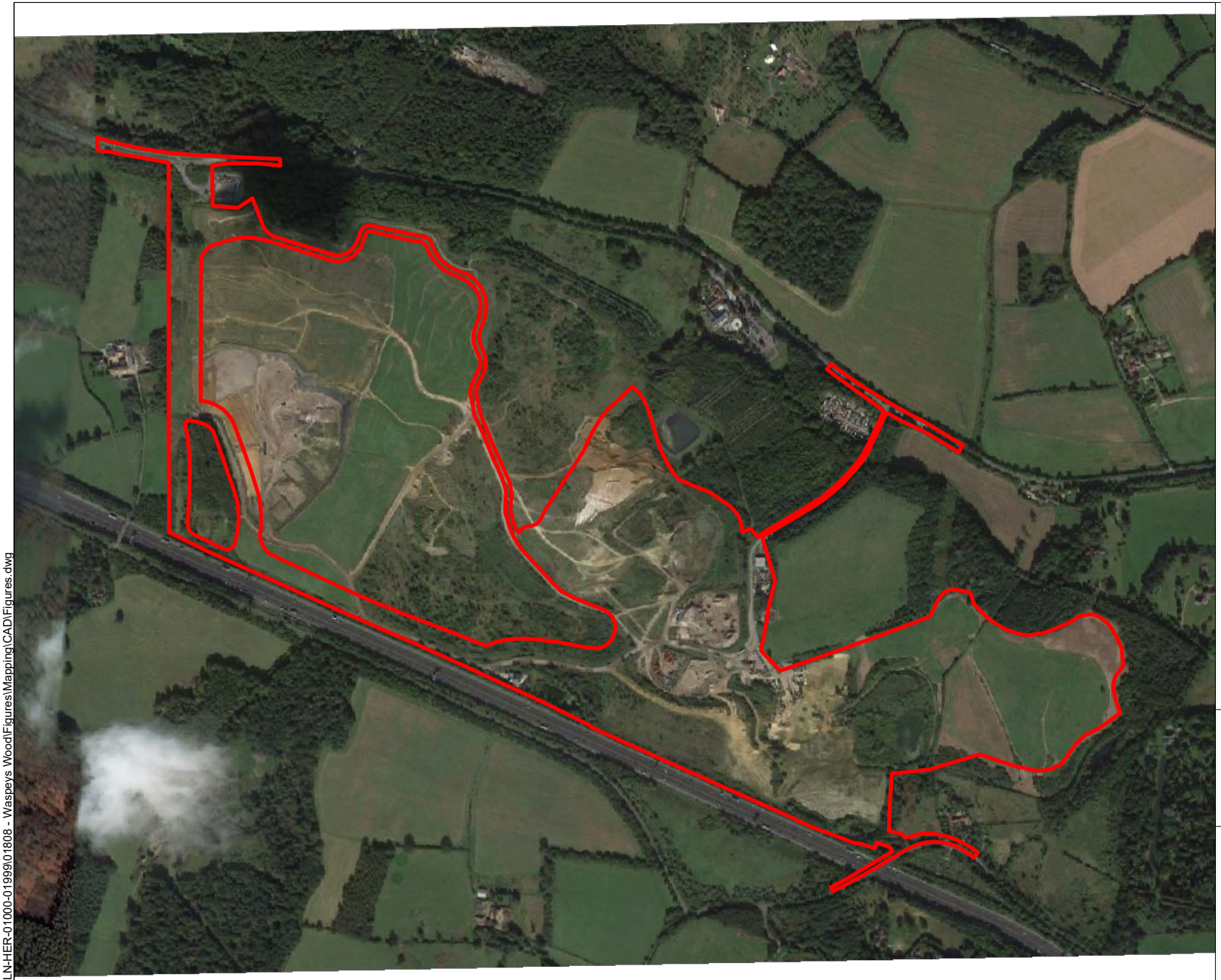

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 19

2016 Aerial photograph (Google Earth)

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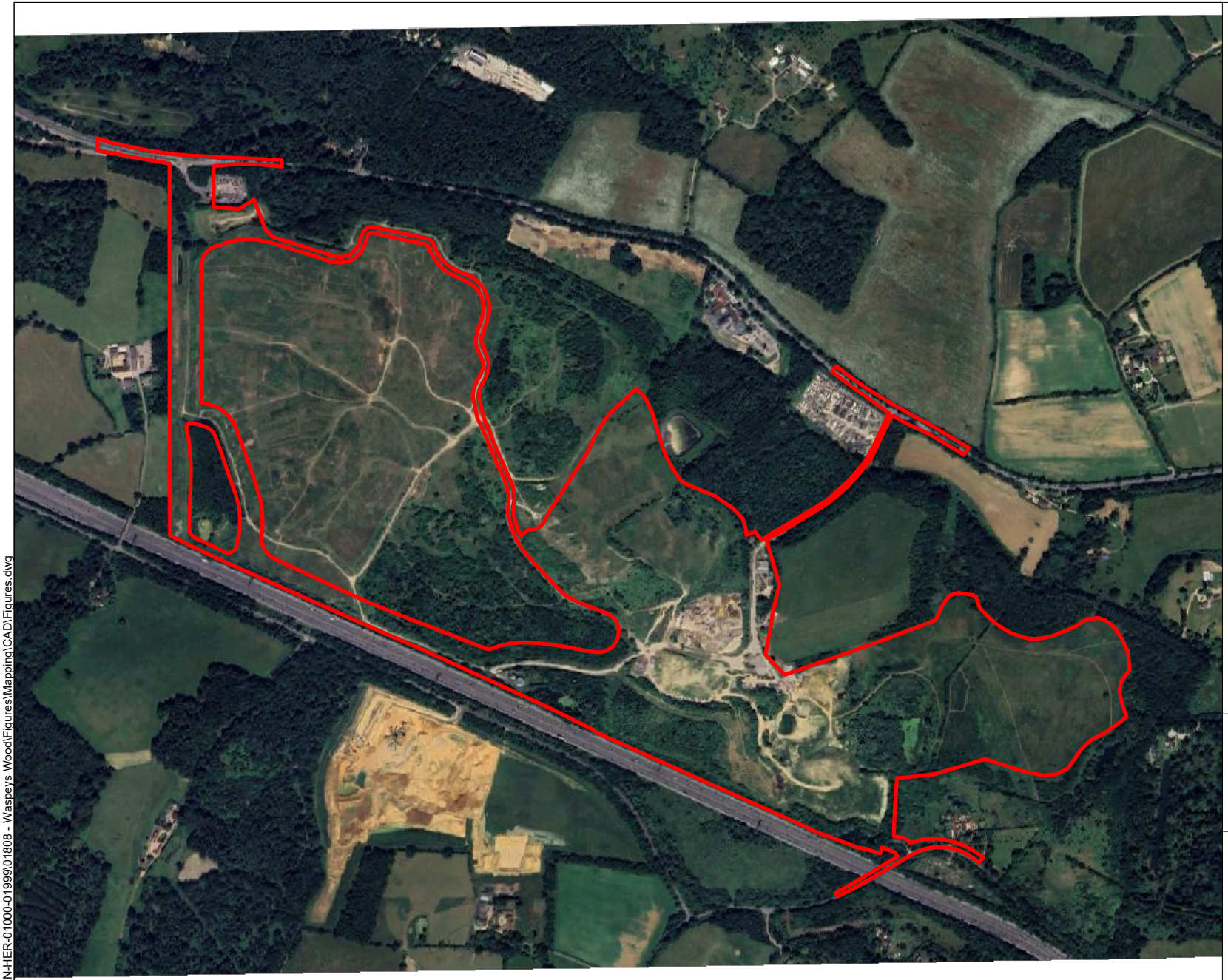

Site Boundary

N

0 100 200m

Scale at A4: 1:12,500

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Figure 20

2025 Aerial photograph (Google Earth)

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Appendix 1 - HER Gazetteer

HER Records

MonUID	Name	Period
MBC1748	BARNS AT MOAT FARM, HEDGERLEY LANE	18th Century to 19th Century
MBC17834	HILLMOTTS FARM HOUSE, HEDGERLEY LANE	18th Century
MBC17835	HILLMOTTS FARM BARN	17th Century to 18th Century
MBC18129	MANOR FARMHOUSE, HEDGERLEY GREEN	18th Century to 19th Century
MBC18130	OUTBUILDINGS NE OF MANOR FARMHOUSE	18th Century to 19th Century
MBC18130	OUTBUILDINGS NE OF MANOR FARMHOUSE	18th Century to 19th Century
MBC18130	OUTBUILDINGS NE OF MANOR FARMHOUSE	18th Century to 19th Century
MBC18131	LEITH GROVE, HEDGERLEY GREEN	16th Century to 17th Century
MBC18132	HAMMER COTTAGE & HARP COTTAGE	18th Century
MBC18134	SLADE FARMHOUSE, VILLAGE LANE	Medieval to 19th Century
MBC18135	OUTBUILDINGS S OF SLADE FARMHOUSE	19th Century
MBC18135	OUTBUILDINGS S OF SLADE FARMHOUSE	19th Century
MBC18135	OUTBUILDINGS S OF SLADE FARMHOUSE	19th Century
MBC18136	SHELL HOUSE, VILLAGE LANE	17th Century
MBC18141	THE OLD RECTORY, HEDGERLEY	19th Century to Modern
MBC18759	WHEATSHEAF FARMHOUSE, FARM LANE	17th Century to 18th Century
MBC18769	STAMPWELL FARMHOUSE, OXFORD ROAD	17th Century to 18th Century
MBC18770	BARN TO NORTH OF STAMPWELL FARMHOUSE	18th Century
MBC18771	STABLES TO E OF STAMPWELL FARMHOUSE	19th Century
MBC18772	BARN TO NORTH-EAST OF STAMPWELL FARMHOUSE	19th Century
MBC24565	MOAT FARMHOUSE, HEDGERLEY LANE	19th Century
MBC25811	Milestone on A40	18th Century to 19th Century
MBC25812	Milestone on A40 near Wilton Park	18th Century to 19th Century
MBC33978	Cold War bunker at Wilton Park	Modern
MBC4527	BULSTRODE PARK	17th Century to 19th Century
MBC4529	PIGEON TOWER, BULSTRODE PARK	19th Century
MBC7637	HYDE FARM HOUSE	14th Century to 18th Century
MBC7638	HYDE FARM BARN	18th Century
MBC10864	FIELD EAST OF BIRCH WOOD.	Unknown
MBC10865	FIELD EAST OF BIRCHWOOD	Unknown
MBC10867	FIELD EAST OF BIRCHWOOD	Unknown
MBC10868	FIELD EAST OF BIRCHWOOD	Unknown
MBC10869	FIELD EAST OF BIRCHWOOD	Unknown
MBC10870	FIELD EAST OF BIRCHWOOD	Unknown
MBC10871	FIELD EAST OF BIRCHWOOD	Unknown
MBC10897	WAPSEY'S WOOD NR 'THE BELL'	Unknown
MBC10899	NE OF WAPSEY'S WOOD	Unknown
MBC10900	NE OF WAPSEY'S WOOD	Unknown
MBC10901	NE OF WAPSEY'S WOOD	Unknown
MBC10902	NE OF WAPSEY'S WOOD	Unknown
MBC10903	NE OF WAPSEY'S WOOD	Unknown
MBC10904	NE OF WAPSEY'S WOOD	Unknown
MBC10905	NE OF WAPSEY'S WOOD	Unknown
MBC10906	NE OF WAPSEY'S WOOD	Unknown
MBC1750	MOAT FARM	Unknown
MBC1752	MOAT FARM	Unknown
MBC338	Taplow Parish: findspots	Unknown
MBC344	PARISH	Lower Palaeolithic to Late Neolithic
MBC345	PARISH	Unknown
MBC346	PARISH	Unknown
MBC391	PARISH	Unknown

MBC4475	HEDGERLEY KILNS	Unknown
MBC4476	HEDGERLEY KILNS	Unknown
MBC4477	HEDGERLEY KILNS	Unknown
MBC4481	HEDGERLEY KILNS	Unknown
MBC4482	HEDGERLEY KILNS	Unknown
MBC4725	WILTON PARK, BEACONSFIELD	Unknown
MBC6888	HYDE FARM, BEACONSFIELD	Unknown
MBC35147	Hedgerley	Unknown
MBC35148	Hedgerley	Unknown
MBC35149	Hedgerley	Unknown
MBC35150	Hedgerley	Unknown
MBC35151	Hedgerley	Unknown
MBC35152	Hedgerley	Unknown
MBC35157	Hedgerley	Unknown
MBC35158	Hedgerley	Unknown
MBC35159	Hedgerley	Unknown
MBC35160	Hedgerley	Unknown
MBC42661	Hedgerley	Unknown
MBC42662	Hedgerley	Unknown
MBC43651	Playing field at Wilton Park	Unknown
MBC43652	Playing fields at Wilton Park	Unknown
MBC44044		15th Century
MBC11543	WILTON PARK	19th Century
MBC10863	FIELD EAST OF BIRCHWOOD	Late Prehistoric
MBC10866	FIELD EAST OF BIRCHWOOD	Late Prehistoric
MBC10872	FIELD EAST OF BIRCHWOOD	Unknown
MBC10898	NE OF WAPSEY'S WOOD	Early Mesolithic to Late Bronze Age
MBC11540	WILTON MANOR	Medieval to Post-Medieval
MBC11541	WILTON PARK	Post-Medieval to Modern
MBC11628	POSSIBLE ROMAN ROAD	Roman
MBC11629	POSSIBLE ROMAN ROAD	Roman
MBC12323	BOWER WOOD	Medieval
MBC13426	BULSTRODE PARK	19th Century
MBC13427	BULSTRODE PARK	Post-Medieval to 19th Century
MBC1746	TEMPLE BULSTRODE	13th Century to 17th Century
MBC1747	MOAT FARM	13th Century to Modern
MBC1749	MOAT FARM	14th Century
MBC1751	MOAT FARM	Medieval
MBC23330	Clay pits in Pitlands Wood	19th Century to Modern
MBC23330	Clay pits in Pitlands Wood	19th Century to Modern
MBC23346	Gravel pit in Birchland Wood	19th Century to Modern
MBC23606	Wilton Park, Beaconsfield	20th Century
MBC23660	SE of Wilton Park	19th Century to Modern
MBC23662	Pit NE of Hillmotts Farm	19th Century
MBC23663	Pit SE of Birchen Spring Coppice	19th Century
MBC23664	Pit NW of Bell House Hotel	19th Century
MBC23675	Pits SW of Wilton Park	19th Century
MBC23824	WILTON PARK	Modern
MBC24178	BURTLEY WOOD	19th Century to Modern
MBC24179	HILLMOTT'S WOOD	19th Century
MBC24180	N OF GREEN BROOM WOOD	19th Century
MBC24181	LOWER PYEBUSHES WOOD	19th Century
MBC24182	SW OF WAPSEY'S WOOD	20th Century
MBC24226	S OF SLADE FARM	19th Century to Modern
MBC24276	S OF MUMFORDS FARM	19th Century to Modern

MBC24280	S OF FURTHER WARREN WOODS	19th Century
MBC24281	S OF FURTHER WARREN WOODS	20th Century
MBC24285	WAPSEY'S WOOD	20th Century
MBC24286	BEDFORD COTTAGE, WAPSEY'S LANE, HEDGERLEY GREEN	19th Century
MBC25138	BULSTRODE PARK	Modern
MBC2716	MUMFORD'S FARM	Medieval to Post-Medieval
MBC2717	MUMFORD'S FARMHOUSE	16th Century to 18th Century
MBC32710	Hedgerley Green	Post-Medieval to Modern
MBC34369	Land north of Slade Farm	Roman
MBC34369	Land north of Slade Farm	Roman
MBC34369	Land north of Slade Farm	Roman
MBC4470	HEDGERLEY KILNS	2nd Century
MBC4471	WAPSEY'S WOOD	2nd Century
MBC4472	WAPSEY'S WOOD	2nd Century
MBC4473	WAPSEY'S WOOD	Roman
MBC4474	HEDGERLEY KILNS	2nd Century
MBC4478	HEDGERLEY KILNS	2nd Century
MBC4479	HEDGERLEY KILNS	2nd Century
MBC4480	HEDGERLEY KILNS	2nd Century
MBC4513	M40 MOTORWAY	2nd Century
MBC4526	BULSTRODE MANOR	Medieval to Post-Medieval
MBC4528	BULSTRODE PARK	Medieval to 19th Century
MBC6265	MOAT FARM	2nd Century
MBC7302	BEACONSFIELD POTTERY	19th Century to Modern
MBC7309	SLADE FARM	Roman
MBC7636	HIDE MANOR	14th Century
MBC43653	Playing fields in Wilton Park	18th Century
MBC47192	East of Wilton Park	Unknown
MBC7485	HEDGERLEY DEAN	Unknown
MBC11530	VIATORES ROUTE 163	Roman
MBC11627	POSSIBLE ROMAN ROAD	Roman
MBC34083	Risborough to Denham railway	20th Century to 21st Century
MBC34426	Stokenchurch to River Colne turnpike road	18th Century to 19th Century
MBC46760	Wilton Park	18th Century to 21st Century
MBC46760	Wilton Park	18th Century to 21st Century
MBC10872	FIELD EAST OF BIRCHWOOD	Unknown
MBC10896	SE OF SIBLET'S WOOD	Unknown
MBC10897	WAPSEY'S WOOD NR 'THE BELL'	Unknown
MBC10898	NE OF WAPSEY'S WOOD	Early Mesolithic to Late Bronze Age
MBC10899	NE OF WAPSEY'S WOOD	Unknown
MBC10900	NE OF WAPSEY'S WOOD	Unknown
MBC10901	NE OF WAPSEY'S WOOD	Unknown
MBC10902	NE OF WAPSEY'S WOOD	Unknown
MBC10903	NE OF WAPSEY'S WOOD	Unknown
MBC10904	NE OF WAPSEY'S WOOD	Unknown
MBC10905	NE OF WAPSEY'S WOOD	Unknown
MBC10906	NE OF WAPSEY'S WOOD	Unknown
MBC20412	BULSTRODE PARK (G118)	17th Century to Modern

HER Events

EvUID	Name	Organisati
EBC11032	Trial excavations	Hedgerley Historical Society

EBC13211	Site visit	Buckinghamshire County Museum
EBC16296	Shovel pit testing and field walking	Oxford Archaeology
EBC16297	Geophysics survey at Burtley Woods	Bartlett-Clark Consultancy
EBC16298	Site visit	Buckinghamshire County Council
EBC16299	Watching brief	John Moore Heritage Services
EBC16770	Watching brief at Bulstrode Park	Oxford Archaeology
EBC16815	Topographic earthwork survey	
EBC16916	Building recording and watching brief at Bulstrode Park, Gerrards Cross	Oxford Archaeology
EBC17163	Watching brief	AOC Archaeology Group
EBC17163	Watching brief	AOC Archaeology Group
EBC17168	Topographic earthwork survey and condition survey	
EBC10798	Proton magnetometry	
EBC18459	Proton magnetometry	
EBC18642	Historic Building Recording: Wilton Park, Garden Walls	Archaeology South-East
EBC18642	Historic Building Recording: Wilton Park, Garden Walls	Archaeology South-East
EBC16296	Shovel pit testing and field walking	Oxford Archaeology
EBC16636	Geophysical survey	Geoquest Associates
EBC17168	Topographic earthwork survey and condition survey	
EBC17692	Trial Trench Evaluation	Archaeological Solutions
EBC17693	Geophysical survey	Archaeological Solutions
EBC18427	Trial trench evaluation: Phase 3, Wilton Park, Beaconsfield	Cotswold Archaeology
EBC18427	Trial trench evaluation: Phase 3, Wilton Park, Beaconsfield	Cotswold Archaeology
EBC18444	Evaluation trial trenching	Cotswold Archaeology
EBC18661	Evaluation: Wilton Park Phase 5	Cotswold Archaeology
EBC18662	Evaluation: Wilton Park Phase 5	Cotswold Archaeology
EBC18662	Evaluation: Wilton Park Phase 5	Cotswold Archaeology

Archaeological Notification Areas

DesigUID	Name
DBC9272	Cropmarks of ring ditch and undated enclosure
DBC9274	Remains of 19th century limekiln
DBC9278	Site of Medieval preceptory and manor of Temple Bulstrode
DBC9549	17th and early 18th century gardens and landscaped park at Hall Barn
DBC9608	Cropmarks of undated enclosure or field boundary
DBC9840	Earthworks of Medieval moat and fishpond in Bower Wood
DBC9941	Late 17th, 18th and 19th century landscaped park and gardens at Bulstrode Park

Appendix 2 - Historic Landfill Plan and Gazetteer

Historic Landfill Sites

hld_ref	site_name	site_add	site_ref
EAHLD13159	Wapseys Wood	Wapseys Wood, Buckinghamshire	WDA/239
EAHLD13160	Wapseys Wood	Gerrards Cross, Buckinghamshire	WDA/230, ALT/BGS/1569
EAHLD13161	Wapseys Wood	Gerrards Cross, Buckinghamshire	WDA/176
EAHLD13162	Wapseys Wood	Gerrards Cross, Buckinghamshire	WDA/325
EAHLD13163	Wapseys Wood	Gerrards Cross, Buckinghamshire	WDA/109
EAHLD13164	Wapseys Wood	Gerrards Cross, Buckinghamshire	WDA/125, 1063/9
EAHLD13165	Wapseys Wood	Gerrards Cross, Buckinghamshire	WDA/109
EAHLD13166	Wapseys Wood	Gerrards Cross, Buckinghamshire	WDA/308
EAHLD32319	Gerrards Cross Sand and Gravel Pits	Wapsey Wood, Gerrards Cross, Buckinghamshire	
EAHLD32320	Gerrards Cross Sand and Gravel Pits	Wapsey's Wood, Oxford Road, Gerrards Cross, Buckinghamshire	
EAHLD32321	Richard Biffa (Reclamation) Limited	Warren Wood, Gerrards Cross, Buckinghamshire	
EAHLD32322	Gerrards Cross Sand and Gravel Pits	Warren Wood, Gerrards Cross, Buckinghamshire	
EAHLD32323	Gerrards Cross Sand and Gravel Pits	Warren Wood, Gerrards Cross, Buckinghamshire	
EAHLD32324	Gerrards Cross Sand and Gravel Pits	Warren Wood, Gerrards Cross, Buckinghamshire	
EAHLD32325	Gerrards Cross Sand and Gravel Pits	Warren Wood, Gerrards Cross, Buckinghamshire	
EAHLD32326	Gerrards Cross Sand and Gravel Pits	Further Warren Wood, Hedgerley, Buckinghamshire	

Appendix 3 Moat Farm Excavation

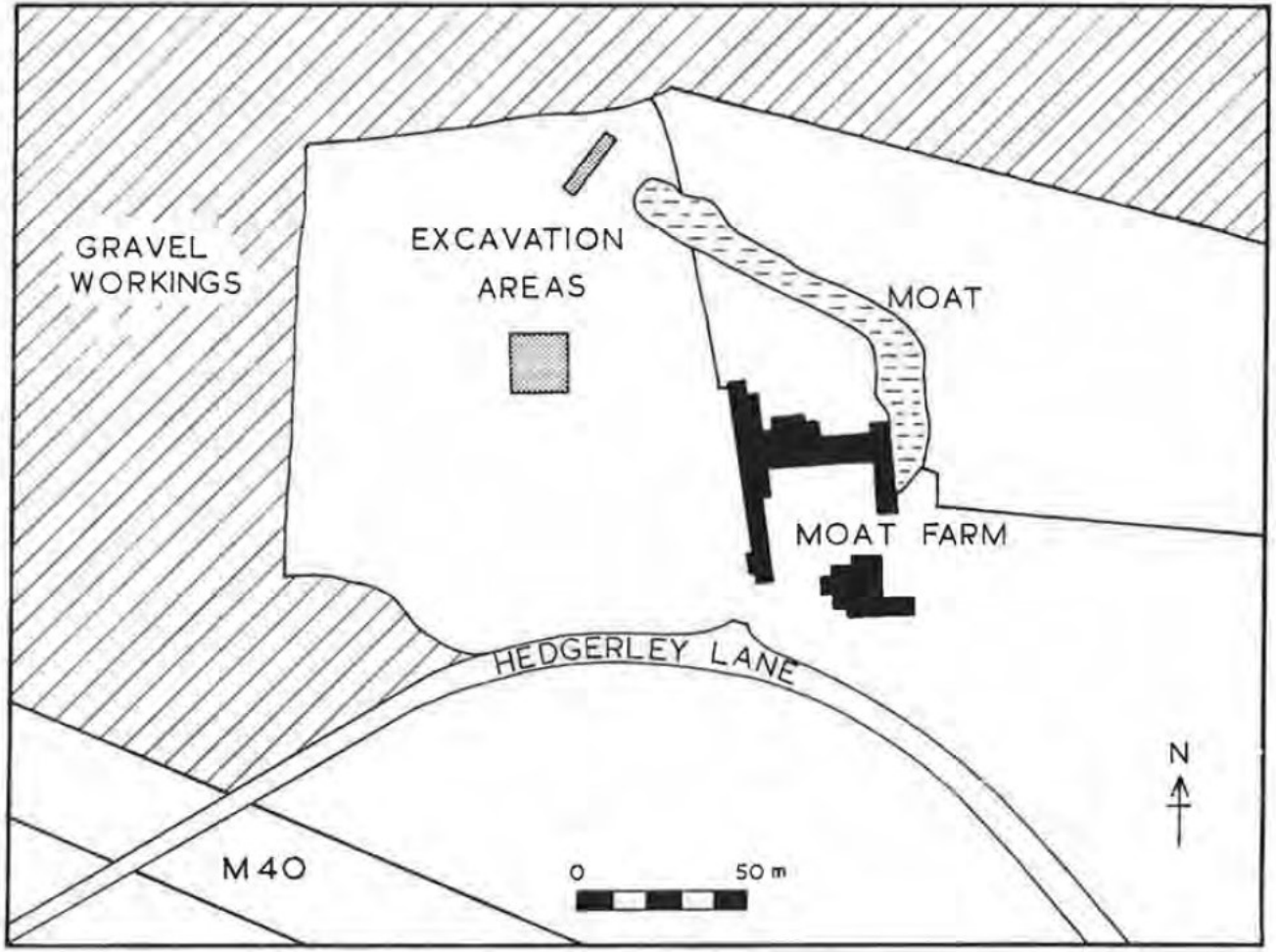
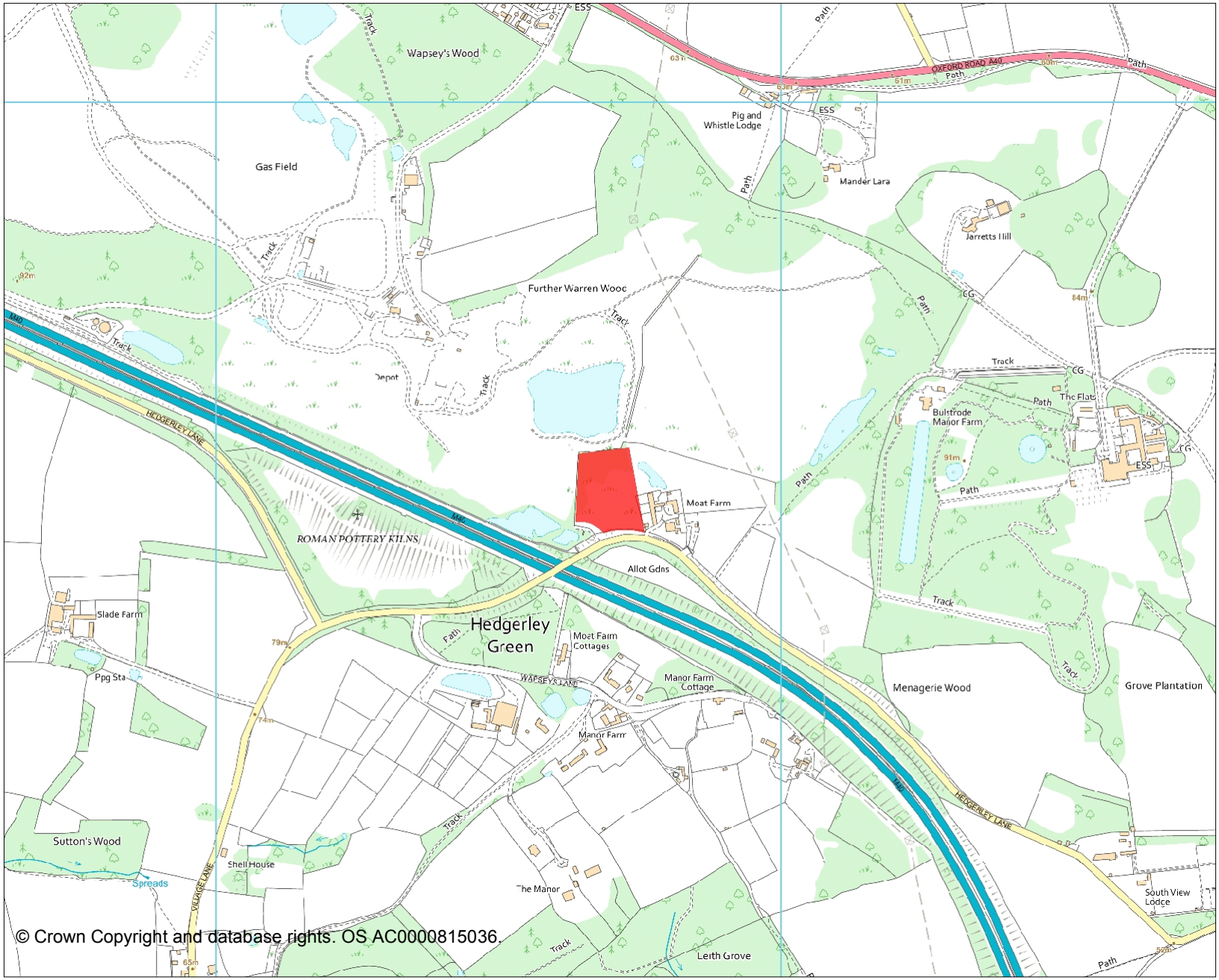


Fig. 1. Moat Farm, Hedgerley, showing the excavated area and moat section.

Appendix 4 Moat Farm Scheduled Monument HE Plan



This is an A4 sized map and should be printed full size at A4 with no page scaling set.

Name: Templars' site at Moat Farm, Hedgerley

Heritage Category: Scheduling

List Entry No : 1006922

County:

District: Buckinghamshire

Parish: Gerrards Cross

Each official record of a scheduled monument contains a map. New entries on the schedule from 1988 onwards include a digitally created map which forms part of the official record. For entries created in the years up to and including 1987 a hand-drawn map forms part of the official record. The map here has been translated from the official map and that process may have introduced inaccuracies. Copies of maps that form part of the official record can be obtained from Historic England.

This map was delivered electronically and when printed may not be to scale and may be subject to distortions. All maps and grid references are for identification purposes only and must be read in conjunction with other information in the record.

List Entry NGR: SU 97697 88312

Map Scale: 1:10000

Print Date: 25 July 2025

Historic England

HistoricEngland.org.uk

Plates

Plates

Plate 1: Bund and vegetation at the eastern edge of the site

Plate 2: Typical landfill derived landscape within the central area of the site from the footpath (looking west).

Plate 3: View looking north-east from the southern centre of the site

Plate 4: View looking south-west along the existing site access route from the western extent of the main site

Plate 5: View looking north into the artificially lowered north-west extent of the site.

Plate 6: View east across the site looking towards the Scheduled Monument which is concealed by trees in the background of the photograph

Plate 7: Pond at south-eastern extent of the site

Plate 8: View east from footpath at south-east corner of the site across the Moat Farm Scheduled Monument (buildings at Moat Farm in background)

Plate 9: View west from the western edge of the Moat Farm Scheduled Monument across it (grassed area) showing the current extent of woodland screening at the east edge of the site in the background.

Plate 10: View looking south-west across the Scheduled Monument with high trees at the east edge of the site screening any intervisibility with the site

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