Ecological Impact Assessment

Manor Farm Cables: Laleham Substation Corridor

Juniper Energy Limited

Prepared by:

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Basis of Report

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Acronyms and Abbreviations

Acronym/Abbreviation	Full Term
BESS	Battery Energy Storage System
BS	British Standard (e.g., BS 5228: Code of practice for noise and vibration)
CEMP	Construction Environmental Management Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
CIRIA	Construction Industry Research and Information Association
CMP	Construction Management Plan
ECoW	Ecological Clerk of Works
EcIA	Ecological Impact Assessment
EPSL	European Protected Species Licence
GiGL	Greenspace Information for Greater London
GLTA	Ground Level Tree Assessment
GPP	Guidance for Pollution Prevention
HRA	Habitats Regulations Assessment
INNS	Invasive Non-Native Species
LNR	Local Nature Reserve
MAGIC	Multi-Agency Geographic Information for the Countryside
NERC	Natural Environment and Rural Communities Act (2006)
NG	National Grid
OS	Ordnance Survey
PEA	Preliminary Ecological Appraisal
PRF	Potential Roost Feature
SAC	Special Area of Conservation
SBIC	Surrey Biodiversity Information Centre
SINC	Site of Importance for Nature Conservation
SLR	SLR Consulting Limited
SNCI	Site of Nature Conservation Interest
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TVERC	Thames Valley Environmental Records Centre
UKHab	UK Habitat Classification
WCA	Wildlife and Countryside Act

1.0 Introduction

SLR Consulting Limited (SLR) was commissioned at the instruction of Juniper Energy Limited to carry out an Ecological Impact Assessment (EcIA) in relation to an electrical cabling project on land between Manor Farm, Slough and National Grid (NG) Land at Laleham Surrey ("the Proposed Development").

1.1 Background

It is proposed that the application seek permission for the installation of electrical connection and communication cables extending between land at Manor Farm, Poyle Road, Slough and the Laleham Substation, with temporary construction compounds, and associated infrastructure and works.

The land at Manor Farm will support a data centre and battery energy storage system (BESS) which is subject to a planning application Ref No: P/10076/013 that has been appealed under non determination (Ref No: APP/J0350/W/25/3366043). The data centre/BESS site is located approximately 6.5km in a straight line from Laleham substation. The length of the cable route is approximately 8.4km.

SLR have been undertaking ecological surveys for the project through 2025. Those relevant to this EcIA include a Preliminary Ecological Appraisal (PEA) which included a thorough ecological desk study and a Ground Level Tree Assessment (GLTA) for bats.

This EcIA report has been prepared to accompany a planning application for the Proposed Development. A separate shadow Habitats Regulations Assessment (HRA) report has also been prepared for the Proposed Development.

1.2 Site Description

The Proposed Development generally follows the highway, running from the proposed data centre / BESS, following the highway network bordered by an industrial estate, crossing the M25 motorway at junction 14, again following the highway network along minor roads before passing between Staines and King George VI reservoirs. It then runs southwards along the A308 and A3044 before entering the Laleham substation site.

Dominant habitat types along the route are sealed surfaces and hardstanding, as well as modified grassland (verges and central reservation). Adjacent habitats include areas of woodland, hedgerows, scrub and mature trees. Various watercourses are crossed by the route, though with one exception, all will be avoided or crossed using no-dig engineering techniques.

1.3 Details of the Proposed Development

The cabling from the substation will provide the power required for the data centre to operate and a connection to the national grid for the BESS.

The cable installation works for the Laleham corridor will involve the following:

- The excavation of a temporary trench to accommodate the cabling infrastructure consisting of up to two 132 kV dual circuits, together with associated communications cabling – unless:
    - A trenchless solution is proposed, e.g. under the M25 J14 or under a watercourse; or
    - Open cut watercourse.

- The construction trench will be up to 1.0m wide and up to 3m deep, the depth is expected to vary due to existing buried services (specially designed trenchless solutions such as the M25 Junction 14 crossings may result in an increase in the installation depth);
- The construction trench will be infilled once the required cabling components have been laid; and
- At intervals along the grid connection route, it is necessary to install a junction box where lengths of the cable can be joined together. Each junction box would be below ground level and would measure c.500mm x 300mm.

The route between the substation and the data centre/BESS site is predominantly urban in nature, thereby limiting the potential available route options. As a result, a significant length of this route is along public highway.

It is intended that the cable laying operation will be undertaken on a phased basis with an identified section being excavated and reinstated prior to moving on to a new section.

For areas of verge and unmade ground, the excavation and reinstatement will be carried out using existing excavated materials where possible. If the original 'turf' is unable to be re-laid or is of a poor quality, then new topsoil and grass seed will be used. Digging will be undertaken using mechanical aids except where trees or other obstructions exist when sensitive installation techniques such as hand digging, vacuum excavation or horizontal directional drilling will be employed.

When installing cables within hard surfaced areas (such as roadway, footpaths or cycleways), these sections will be open cut using a floor saw and/or a mechanical pecker to break up the top surface. No percussive piling is proposed for the project.

Mechanical means would then be used to remove the subsurface and associated materials to the correct depths. Once the cable is installed, the original surface would then be reinstated to the relevant specifications for the type of surface in agreement with the council.

Machinery and materials will be kept at temporary laydown areas, the location of which will be agreed as part of a Construction Management Plan (CMP). Machinery may also be temporarily stored overnight at the location of the previous day's completed cable trench. In this instance, the machinery would be located behind secure fencing.

All construction methodology details will be agreed with the local authorities through the submission of a CMP.

1.4 Purpose of this Report

The purpose of this EcIA report is:

- To describe the baseline data collection and assessment methods used;
- To summarise the baseline ecological conditions;
- To identify and describe all potentially significant ecological effects associated with the Proposed Development;
- To set out the design, mitigation and compensation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
- To identify how mitigation and compensation measures will be delivered;
- To provide an assessment of the significance of any residual effects in relation to the effects on biodiversity and the legal and policy implications.

1.5 Evidence of Technical Competence and Experience

The assessment was undertaken by Jacob Ball, a Senior Ecologist at SLR with over seven years of experience in the conservation and ecological sector which has included working and managing projects in the built environment, renewable energy, minerals and infrastructure. He is also a Qualifying member of CIEEM.

This report has been subject to internal review by Dr Paul Clack, CEnv, MCIEEM, a Technical Director with SLR. Paul has over 20 years of experience as a professional ecologist, which has included preparing and overseeing EcIAs for multiple projects, including small and large infrastructure projects, across the UK.

1.6 Relevant Legislation and Policy

Generic Legislation and Policy text is produced within **Appendix A**. Details of relevant Local Planning Policy is provided below.

The majority of the Laleham route lies within the Spelthorne Borough Council area; smaller section in the north of the route lies within Slough Borough Council and one short section lies within London Borough of Hillingdon.

Relevant local policies are outlined below:

1.6.1 Spelthorne Borough Council[1]

Policy EN8: Protecting and Improving the Landscape and Biodiversity

The Council will seek to protect and improve the landscape and biodiversity of the Borough by:

a) safeguarding sites of international and national importance,

b) working with partners in the public, private and voluntary sectors to develop and secure the implementation of projects to enhance the landscape and create or improve habitats of nature conservation value, and to secure the more effective management of land in the Borough,

c) ensuring that new development, wherever possible, contributes to an improvement in the landscape and biodiversity and also avoids harm to features of significance in the landscape or of nature conservation interest,

d) refusing permission where development would have a significant harmful impact on the landscape or features of nature conservation value,

e) safeguarding the Borough's Common Land and working with other interested parties to protect and where appropriate enhance its nature conservation and recreational value.

1.6.2 Slough Borough Council[2]

Core Policy 9 (Natural and Built Environment)

Development will not be permitted unless it:

[1] Core Strategy and Policies, Development Plan Document, Adopted February 2009, Spelthorne Borough Council. (It should be noted that the Emerging Local Plan 2024-2039 was still being consulted on at the time of writing and relevant policies are not yet available).

[2] Slough Local Development Framework, Core Strategy 2006-2026 (December 2008), Development Plan Document.

- Enhances and protects the historic environment.
- Respects the character and distinctiveness of existing buildings, townscapes and landscapes and their local designations.
- Protects and enhances the water environment and its margins.
- Enhances and preserves natural habitats and the biodiversity of the Borough, including corridors between biodiversity rich features.

1.6.3 London Borough of Hillingdon[3]

Biodiversity and Geological Conservation

SO8: Protect and enhance biodiversity to support the necessary changes to adapt to climate change. Where possible, encourage the development of wildlife corridors.

Policy EM7: Biodiversity and Geological Conservation

The Council will review all the Borough grade Sites of Importance for Nature Conservation (SINCs).

Hillingdon's biodiversity and geological conservation will be preserved and enhanced with particular attention given to:

1. The conservation and enhancement of the natural state of: Harefield Gravel Pits, Colne Valley Regional Park, Fray's Farm Meadows, Harefield Pit.
2. The protection and enhancement of all Sites of Importance for Nature Conservation. Sites with Metropolitan and Borough Grade 1 importance will be protected from any adverse impacts and loss. Borough Grade 2 and Sites of Local Importance will be protected from loss with harmful impacts mitigated through appropriate compensation.
3. The protection and enhancement of populations of protected species as well as priority species and habitats identified within the UK, London and the Hillingdon Biodiversity Action Plans.
4. Appropriate contributions from developers to help enhance Sites of Importance for Nature Conservation in close proximity to development and to deliver/ assist in the delivery of actions within the Biodiversity Action Plan.
5. The provision of biodiversity improvements from all development, where feasible.
6. The provision of green roofs and living walls which contribute to biodiversity and help tackle climate change.
7. The use of sustainable drainage systems that promote ecological connectivity and natural habitats.

[3] A Vision for 2026, Local Plan: Part 1, Strategic Policies (Adopted November 2012), London Borough of Hillingdon.

2.0 Methodology

2.1 Scope

The zone of influence for ecological features varies, depending on the nature and behaviour of the features, and the type of impact that may affect them. As a rule, in this report, the assessment of individual features is considered for the whole of the Proposed Development area plus the distances listed in **Table 2-1**:

Table 2-1 Maximum Zone of Influence from Scheme Boundary for Ecological Features.

Ecological Feature	Zone of Influence
International Statutory Designated Sites	10km from Project boundary
National Statutory Designated Sites	2km buffer around Project boundary
Local Statutory and Non-Statutory Designated Sites	2km buffer around Project boundary
Priority habitat (Ancient woodland and main rivers)	2km buffer around Project boundary
Relevant species records (including protected/notable and invasive species)	2km buffer around Project boundary
Standing waterbodies	0.5km around Project boundary
Habitats, protected/notable species and invasive species	Within the proposed Project boundary, and adjacent habitats within 30m

2.2 Baseline Data Collection

2.2.1 Desk Study

An ecological data search for designated sites and records of protected and priority species occurring within the potential zone of influence was received in April 2025 from Thames Valley Environmental Records Centre (TVERC), Greenspace Information for Greater London (GiGL) and Surrey Biodiversity Information Centre (SBIC). To identify relevant records, records from Local Environmental Records Centres (LERCs) were collated and filtered to those recorded within 2km of the cable route within the last 10 years.

Additionally, an internet-based desk study was also undertaken, using Multi-Agency Geographic Information for the Countryside (MAGIC) website. The website provided information on habitats and species of principal importance for conservation in England.

Further details on the desk study methodology are provided within the PEA report[4] for the Project.

2.2.2 Field Surveys

2.2.2.1 Preliminary Ecological Appraisal and UKHAB survey

SLR ecologists undertook a Preliminary Ecological Appraisal (PEA)[4] during spring 2025 that included an extended habitat survey to identify and map habitats contained within the cable route area using UK Habitat Classification (UKHab).

[4]402.065673.00001_Manor_Farm_PEA_Report_SLR_Consulting_Ltd. (2025).

The habitat survey was conducted according to the methods described in the UKHab user manual[5], with habitats present (including those of conservation concern) recorded and mapped onto digital tablet devices and/or Ordnance Survey (OS) or aerial maps. Target notes were recorded to describe any notable features such as rare flora, habitats too small to map, or invasive non-native species (INNS).

The survey focussed on the cable alignment and accessible buffer (up to 20m, where access was possible) for the presence of protected or notable species or habitats that had the potential to be affected by the development.

2.2.2.2 Bat Ground Level Tree Assessment (GLTA)

The PEA fieldwork identified a number of trees that appeared initially suitable for roosting bats. More detailed GLTA of these specimens was undertaken in June 2025.

The GLTA inspection involved using binoculars and torches to identify Potential Roost Features (PRF), such as lifted bark, woodpecker holes and/or other cavities. All surveyed trees were numbered and marked on a Site map, grid reference and tree species are also noted. Work was undertaken by SLR ecologists.

The following categorisation of trees was used, as outlined in Table 2-2 based on Collins 2023[6].

Table 2-2: Tree Suitability for Roosting Bats from GLTA

Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any.
FAR	Further Assessment Required to establish if PRFs are present in the tree.
PRF	A tree with at least one PRF present.

Where possible trees were further categorised using the following criteria as outlined in the table below. The criteria were only considered when obvious PRFs were identified, as due to the height of many PRFs it is not always possible to determine the level of suitability whilst conducting a GLTA.

Table 2-3: Tree Suitability based on potential suitability of PRFs

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size of lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony

[6] Collins, J. ed. (2023). Bat Survey for Professional Ecologists, Good Practice Guidelines (4th edition). Bat Conservation Trust, London.

2.2.3 Limitations

2.2.3.1 Desk Study

Spatially referenced data was not available from GiGL and as such is relevant to the cable route as a whole. Therefore, consideration of those species outlined are applicable where appropriate habitat for that species is found along each route length. Where suitable habitat is present, the species outlined is considered further and mitigation may apply depending on seasonality. This is not considered a significant limiting factor.

As there are three individual 2 km data searches covering the route, it is possible that there is an overlap of data records. This is not considered a significant limiting factor.

Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that important habitats or protected species not identified during the data search do in fact occur within the vicinity of the site. Interpretation of maps and aerial photography has been conducted in good faith, using recent imagery, but it has not been possible to verify the accuracy of any statements relating to land use and habitat context outside of the field study area.

2.2.3.2 Field Surveys

Areas of private landholdings within the 20 m buffer zone were not freely accessible, therefore observations of habitat types and species composition were at time limited to that which could be seen from adjacent habitats. Due to the methods to be applied for construction this was not seen as a limiting factor.

GLTA were undertaken in suboptimal seasons when trees were in leaf and views may be obstructed. All trees of suitable maturity to contain PRFs were however surveyed fully and roost features readily identifiable. The proposed works will not impact any trees and as such this was not seen as a significant limitation.

2.3 Assessment Approach

The ecological evaluation and impact assessment approach used in this report is based on Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (“CIEEM guidelines”) (CIEEM, 2018).

2.3.1 Important Ecological Features

Ecological features can be important for a variety of reasons and the rationale used to identify them is explained in the text. Importance may relate, for example, to the quality or extent of the site or habitats therein; habitat and/ or species rarity; the extent to which such habitats and/ or species are threatened throughout their range, or to their rate of decline.

2.3.1.1 Determining Importance

The importance of an ecological feature should be considered within a defined geographical context. The following frame of reference has been used in this case, relying on known/ published accounts of distribution and rarity where available, and professional experience:

- International;
- National (i.e. UK/ England etc.);
- Regional (i.e. South East England);
- County (i.e. Surrey / Greater London); and
- Local (i.e. within circa 5km).

The above frame of reference is applied to the ecological features identified during the desk study and surveys to inform this report.

The value of habitats has been measured against published selection criteria where available. Examples of relevant criteria include; descriptions of habitats listed on Annex 1 of the Habitats Directive; descriptions of habitats of principal importance for biodiversity under Section 41 of Natural Environment and Rural Communities (NERC) Act 2006; and Local Wildlife Site Selection Criteria.

In assigning a level of value to a species, it is necessary to consider its distribution and status, including a consideration of trends based on available historical records. Reference has therefore been made to published lists and criteria where available. Examples of relevant lists and criteria include: species of European conservation importance (as listed on Annexes II, IV and V of the Habitats Directive or Annex 1 of the Birds Directive); species of principal importance for biodiversity under Section 41 of the NERC Act 2006 and Birds of Conservation Concern[7].

For the purposes of this report ecological features of local importance or greater and/or subject to legal protection have been subject to detailed assessment. Effects on other ecological features are considered unlikely to be significant in legal or policy terms.

2.3.2 Impact Assessment

The impact assessment process involves the following steps:

- identifying and characterising potential impacts;
- incorporating measures to avoid and mitigate (reduce) these impacts;
- assessing the significance of any residual effects after mitigation;
- identifying appropriate compensation measures to offset significant residual effects (if required); and
- identifying opportunities for ecological enhancement.

When describing impacts, reference has been made to the following characteristics, as appropriate:

- Positive or negative;
- Extent;
- Magnitude;
- Duration;
- Timing;
- Frequency; and
- Reversibility.

The impact assessment process considers both direct and indirect impacts: direct ecological impacts are changes that are directly attributable to a defined action, e.g. the physical loss of habitat occupied by a species during the construction process. Indirect ecological impacts are attributable to an action, but which affect ecological resources through effects on an intermediary ecosystem, process or feature, e.g. the installation of ducting which cause

[7] Eaton, M.A., Aebischer, N.J., Brown, A., Hearn, R.D., Lock, L., Musgrove, A.J., Noble, D.G., Stroud, D.A., & Gregory, R.D. (2015). Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds, 108: 708-746.

hydrological changes, which, in the absence of mitigation, could lead to the drying out of wetland habitat.

Consideration of conservation status is important for evaluating the effects of impacts on individual habitats and species and assessing their significance:

- Habitats – conservation status is determined by the sum of the influences acting on the habitat that may affect its extent, structure and functions as well as its distribution and its typical species within a given geographical area.
- Species – conservation status is determined by the sum of influences acting on the species concerned that may affect its abundance and distribution within a given geographical area.

2.3.3 Significant Effects

The concept of ecological significance is addressed in paragraphs 5.24 through to 5.28 of CIEEM guidelines. Significance is a concept related to the weight that should be attached to effects when decisions are made. For the purpose of EcIA, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general.

Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local and the scale of significance of an effect may or may not be the same as the geographic context in which the feature is considered important.

2.3.4 Cumulative Effects

Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. Cumulative effects can occur where a proposed development results in individually insignificant impacts that, when considered in-combination with impacts of other proposed or permitted plans and projects, can result in significant effects.

For the Proposed Development, consideration was given to major applications and consented projects where construction periods could overlap. No operational impacts will occur as the Proposed Development is a buried cable, so consideration was construction period only.

2.3.5 Avoidance, Mitigation, Compensation and Enhancement

Where potentially significant effects have been identified, the mitigation hierarchy has been applied, as recommended in the CIEEM Guidelines. The mitigation hierarchy sets out a sequential approach beginning with the avoidance of impacts where possible, the application of mitigation measures to minimise unavoidable impacts and then compensation for any remaining impacts. Once avoidance and mitigation measures have been applied residual effects are then identified along with any necessary compensation measures, and incorporation of opportunities for enhancement.

Within this EcIA the avoidance, mitigation, compensation and enhancement are defined here as follows:

- Avoidance is used where an impact has been avoided, e.g. through changes in scheme design;
- Mitigation is used to refer to measures to reduce or remedy a specific negative impact *in situ;*

- Compensation describes measures taken to offset residual effects, i.e. where mitigation *in situ* is not possible; and
- Enhancement is the provision of new benefits for biodiversity that are additional to those provided as part of mitigation or compensation measures, although they can be complementary.

3.0 Baseline Ecological Conditions

The following sub-sections briefly describe the baseline conditions for all ecological features considered. These descriptions are based on the conditions at the time of the supporting survey work. Further information can be found in the HRA and PEA reports.

3.1 Designated Sites

3.1.1 Internationally Statutory Designated Sites

A total of five internationally designated sites are present within 10 km of the Proposed Development. These are summarised in **Table 3-1** below. All these sites are of **international value** based on their level of designation.

Table 3-1 Internationally Designated Sites within 10km

Site Name	Designation	Distance (m)	Reason for Designation
South West London Waterbodies	Special Protection Area (SPA)	Adjacent	Qualifying individual species listed in Annex I of the Wild Birds Directive (Article 4.2) include: • A051 Gadwall, *Mareca strepera*, (non-breeding) • A056 Northern Shoveler, *Spatula clypeata*, (non-breeding)
South West London Waterbodies	Ramsar site	Adjacent	The site qualifies under Ramsar criterion 6 due to the presence of internationally important numbers of the following qualifying species: • A051 Gadwall, *Mareca strepera*, (non-breeding) • A056 Northern Shoveler, *Spatula clypeata*, (non-breeding)
Windsor Forest and Great Park	Special Area of Conservation (SAC)	5400	Annex I habitats that are a primary reason for selection of this site: 9190 Old acidophilous oak woods with *Quercus robur* on sandy plains Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrub layer (Quercion robori-petraeae or Ilici-Fagenion) Annex II species that are a primary reason for selection of this site: Violet click beetle *Limoniscus violaceous*.
Thursley, Ash, Pirbright and Chobham	SAC	8900	Annex I habitats that are a primary reason for selection of this site: H4010. Northern Atlantic wet heaths with *Erica tetralix;* Wet heathland with cross-leaved heath H4030. European dry heaths H7150. Depressions on peat substrates of the Rhynchosporion
Thames Basin Heaths	SPA	8900	Qualifying individual species listed in Annex I of the Wild Birds Directive (Article 4.1) include:

			• A224 European nightjar, *Caprimulgus europaeus (*Breeding) • A246 Woodlark, *Lullula arborea* (Breeding) • A302 Dartford warbler, *Sylvia undata* (Breeding)

The location of designated sites is shown on Appendix B **Figure 1**.

3.1.2 Other Statutory Designated Sites

A total of four other statutory designated sites are present within 2km of the Proposed Development. These are summarised in **Table 3-2** below.

Sites of Special Scientific Interest (SSSIs) are of **national value**. Local Nature Reserves are of **local value**.

Table 3-2 Other Statutory Designated Sites within 2km

Site Name	Designation	Distance (m)	Feature
Staines Moor	Site of Special Scientific Interest (SSSI)	Adjacent	Nationally important populations of wintering wildfowl and rare aquatic flora.
Wraysbury Reservoir	SSSI	Adjacent	Nationally important numbers of wintering cormorant *Phalacrocorax carbo*, great crested grebe *Podiceps cristatus* and shoveler *Anas clypeata.*
Arthur Jacob Nature Reserve	Local Nature Reserve (LNR)	480	Wetland habitats featuring dragonflies and butterflies.
Bedfont Lakes	LNR	1907	Over 350 plant species recorded including 156 species of birds, 24 species of butterfly, 124 species of moth, 20 species of dragonflies and damselflies, 58 species of spider, 97 species of fungi, 4 species of amphibians and 20 species of mammal.

The location of designated sites is shown in Appendix B **Figure 1**.

3.1.3 Non-statutory Designated Sites

A total of 18 non-statutory sites are present within 2 km of the cable route. These are detailed in full within the PEA report[4] and are listed in **Table 3-3**. All are of **local value**.

Table 3-3 Non-statutory sites within 2km

Site Name	Designation	Area (ha)	Distance from Route (m)
Stanwell II	SNCI	5.7	Adjacent
Shortwood Common North	SNCI	5.2	Adjacent
Queen Mary Reservoir	SNCI	320.2	Adjacent
River Colne (from County Boundary to Staines Moor). Stanwell Moor	SNCI	5.5	Adjacent
East of Poyle Meadows	SNCI	2.9	Adjacent
Greenham's Fishing Pond	SNCI	0.5	20
Wraysbury Reservoir	SNCI	48.5	30
West of Queen Mary Reservoir	SNCI	40.1	100
West of Poyle Meadows	SNCI	1.2	175
Birch Green by River Ash	SNCI	5.3	410
River Thames - Spelthorne	SNCI	69.6	950
River Thames - Runnymede	SNCI	49.3	988
Old Slade Lake	LWS	28.3	1702
Church Lammas	SNCI	8.7	1427
Princes Lake	SNCI	47.9	1115
Hilda May Lake	SNCI	5.8	1849
Moor Lane Nature Reserve	SNCI	4.27	1850
Chandos Road	Conservation Road Verge	0.25	1910

3.1.4 Priority habitats and ancient woodland

The PEA report[4] details the various priority habitat types present within 2 km. Areas mapped as wood pasture and parkland, deciduous woodland and lowland meadows are present within the 20 m buffer of the route corridor. Based on the information available, these are considered to be of at least **local value** (and potentially of county value).

It should be noted that while the priority habitats noted are found within the 20 m buffer of the site, the majority of each habitat is encompassed within the boundary for the Staines Moor SSSI. Subsequent sections cover these habitats within the SSSI assessments.

3.2 Habitats

Habitats within the Proposed Development area primarily fall within the highway boundaries and are therefore dominated by sealed road carriageway and pedestrian footpaths. There are car parks, gardens, buildings, including industrial buildings, development sites, fences, and tracks within 20m of the proposed cable route.

Grassland habitat within the Proposed Development area is dominated by modified grassland in verges and central reservations, which is regularly cut and species-poor. Two areas of mixed scrub were also identified.

These habitats are of **less than local value** based on their species composition and condition.

A number of rivers and streams are also present, though in all but one case these will be crossed using no-dig methods and will thus not be affected.

The one watercourse that may be crossed using open-cutting method is the Wraysbury River near Horton Road. The Wraysbury River is a non-priority tributary of the Colne River, the riverbanks are steep with a vertical profile and contain concrete reinforcement. Both banks contain dense marginal vegetation with a high abundance of INNS across the width of the bank. The river has a gravel bed with minimal vegetative cover and extensive siltation.

Based on habitat conditions at the time of survey, the Wraysbury River riparian corridor is assessed to be of **local value**.

Other habitats adjacent and within 20 m of the route include various types of woodland, hedgerows, along with areas of hawthorn and mixed scrub. Collectively, habitats adjacent to the route are assessed to be of **local value**.

3.3 Species

The following sections provide brief summaries of desk study and field survey results for relevant species/groups of flora and fauna that may occur within the Proposed Development area and adjacent habitats. A geographic scale of value is attributed to each.

3.3.1 Plants

The desk study returned only one record of native bluebell *Hyacinthoides non-scripta* around 900m from the Proposed Development area. No other records of protected or threatened plants were returned.

The field survey did not identify any protected or threatened plant species within the survey area. No other notable plant species were identified within the surveyed area, and only plants typical of grassland, scrub and woodland communities were recorded during the survey. INNS of plant included on Schedule 9 of the Wildlife and Countryside Act (WCA), included wall cotoneaster *Cotoneaster horizontalis*, with Japanese knotweed *Reynoutria japonica* and Himalayan balsam *Impatiens glandulifera* along the Wraysbury River.

Plants are therefore of **less than local value** within the Proposed Development area. Measures are included later around biosecurity and control to avoid spread of INNS.

3.3.2 Invertebrates

The data search returned limited numbers of records of species listed on Schedule 5 of theWCA and Section 41 of the NERC Act. These included records of white-letter hairstreak *Satyrium w-album*, small heath *Coenonympha pamphilus* and stag beetle *Lucanus cervus*.

No notable invertebrates were identified during the field surveys, and habitats within 20 m of the cable route are not largely optimal for any notable invertebrates. Tightly mown modified verges were species-poor and unlikely to support important assemblages of invertebrates, including those mentioned above.

Habitats in the project area are considered to be of **less than local value** for invertebrates.

3.3.3 Fish

The single watercourse that my be crossed using open-cut techniques is the Wraysbury River. A typical range of coarse fish are likely to occur, but in the very small section that could be impacted (around a 10m maximum working width, 1m wide trench), no significant populations are expected to occur.

Habitats in the project area are considered to be of **less than local value** for fish. Construction phase good practice methods covered later will reduce risks of accidental harm to fish.

3.3.4 Amphibians

A single record of great crested newt was returned in the desk study, though a precise location was not available.

No amphibians were identified during the field survey. The desk study identified two ponds within 500 m of the cable route, a ditch which is only seasonally dry was identified within 20 m of the cable route, and suitable terrestrial habitat such as the scrub, woodland, hedgerows, and lines of trees is present within 20 m of the proposed works area.

The Proposed Development area is of poor quality for amphibians, comprising predominantly regularly cut verges and sealed surfaces. These habitats are considered be of **less than local value** for amphibians.

3.3.5 Reptiles

The desk study returned records of grass snake *Natrix helvetica* and slow-worm *Anguis fragilis* within 2 km (though all records were in the 1.5-2 km zone from the Proposed Development area).

No reptiles were identified during the survey, and the majority of the Proposed Development area does not provide suitable habitat for reptiles. Adjacent edges of the woodland and scrub, as well as the seasonally wet ditch could potentially provide some suitable habitat for reptiles, but these will not be directly impacted by the works.

Habitats in the Proposed Development area are considered to be of **less than local value** for reptiles.

3.3.6 Birds

The desk study returned records of numerous bird species within 2 km, though many of these came from the Southwest London waterbodies and other larger wetlands in the area.

Habitats for birds within the Proposed Development area are very limited, though commoner passerines may nest in the small areas of scrub in and adjacent to the Proposed Development area and within neighbouring habitats, notably woodland and mature trees.

Whilst the Project area is of **less than local value** for populations of birds, given their legal protection when nesting construction phase mitigation is covered later in this report.

3.3.7 Mammals

3.3.7.1 Bats

The desk study returned records of seven bat species within 2 km. Species recorded included common, soprano and Nathusius' pipistrelle *Pipistrellus pipistrellus, P. pygmaeus, P. nathusii*, Daubenton's and Natterer's bats *Myotis daubentonii, M. nattereri*, brown-long-eared bat *Plecotus auritus* and noctule *Nyctalus noctula*.

Additionally, three granted European Protected Species Licence (EPSL) applications for bats within 2 km, the closest around 250 m from the Proposed Development area.

Overall habitat quality for foraging bats in the Proposed Development area is poor, largely comprising lit highway verges that are regularly cut.

No potential roosts are present, though mature trees are present close to the Proposed Development area. Those identified as being potentially suitable for roosts were given extra survey effort via the GLTA survey. This identified a total of 13 individual trees with PRFs. This roosting resource is considered to be of **local value to bats.** Bats are therefore considered further in subsequent sections of this report.

3.3.7.2 Badger

No records of badger *Meles meles* were identified within the data search. No signs of badger, their setts or resting places were identified during the survey, however the woodland and grassland adjacent the Proposed Development area could provide opportunities for foraging badger.

Badgers can also establish setts in new areas, and taking a precautionary approach, a new sett could establish ahead of construction within 30 m. Whilst the Proposed Development area is currently **less than local value for badger**, given their legal protection pre-construction mitigation is covered later in this report.

3.3.7.3 Otter and Water Vole

The desk study returned a single record of otter *Lutra lutra* just over 1 km from the Proposed Development area. No records of water vole *Arvicola amphibius* were returned.

Surveys for otter and water vole were undertaken during summer 2025 for the project. A total of 11 watercourses were surveyed, including the Wraysbury River, the only crossing that may include open cut construction.

No evidence of either species was found, though in some cases watercourses offer potentially suitable habitat for water vole and otter. Populations could also occur further downstream.

Taking a precautionary approach therefore, it is assumed that the single watercourses that may be impacted by the works (the Wraysbury River) is of **local value** for otter and water vole.

3.3.7.4 Other Mammals

The desk study returned records of other mammals, including West European hedgehog *Erinaceus europaeus* that is a priority species under Section 41 of the NERC Act.

Considering the nature of habitats in the Proposed Development area, significant populations of hedgehog are unlikely to occur and is assessed as being of **less than local**

value for this species. Construction phase good practice methods covered later will reduce risks of accidental harm to hedgehog.

3.4 Summary of Important Ecological Features

The following receptors are taken forward for assessment, based on their geographic value (local and above) and/or their legal protection:

Table 3-4: Summary of Important Ecological Features Subject to Detailed Assessment

Ecological Feature	Scale at which Feature is Important	Comments on Legal Status and/or Importance
Internationally designated sites (South West London Reservoirs SPA & Ramsar)	International	Conservation of Habitats and Species Regulations 2010
SSSIs (Staines Moor and Wraysbury Reservoir)	National	Section 28G of the WCA
LNRs (Arthur Jacob Nature Reserve)	Local	Material consideration in local planning policy
SNCIs	Local	Material consideration in local planning policy
Deciduous woodland priority habitat	Local	Material consideration in local planning policy
Wraysbury River riparian corridor	Local	-
Nesting birds	Less than local	Section 1 of the WCA
Otter and water vole	Local	Conservation of Habitats and Species Regulations 2010 (otter) and Section 5 of the WCA (both species).
Badger	Less than local	Protection of Badgers Act
Bats	Local	Conservation of Habitats and Species Regulations 2010 and Section 5 of the WCA
INNS plants	Not applicable	Not protected, Section 9 of WCA controls spread of INNS

The following receptors are not taken forward for further assessment, based on the value of habitats and quality within the Proposed Development area, and in consideration of construction methods:

- All habitats within the Proposed Development area.

- Habitats in adjacent areas unaffected by the Proposed Development.
- Plants
- Invertebrates
- Fish
- Amphibians
- Reptiles
- Other mammals

4.0 Assessment of Effects and Mitigation Measures

4.1 Potential Impacts

Potential impacts of the works during the construction phase to the receptors brought forward for assessment are categorised as follows:

• Temporary habitat disturbance and/or degradation including pollution (to air and water).

• Disturbance to species during construction (noise, vibration and lighting).

• Species mortalities and injuries – e.g. through collisions with construction vehicles and direct contact through excavation works, falling and trapping in open excavations during construction.

No operational impacts are likely to occur, given the nature of the Proposed Development (buried cable).

4.2 Embedded mitigation

This Section describes some established and uncontroversial standard best practice construction techniques and methods which will be employed to avoid or minimise the risk of potential impacts, in particular habitat damage or degradation, and species mortality.

If any protected species or signs of protected species such as a badger sett, or other ecological features including new occurrences or increase in extent of INNS are encountered during the works, all work in the vicinity is to stop immediately and a suitably experienced ecologist contacted as soon as possible.

A detailed Construction Environmental Management Plan (CEMP) will be developed and issued in the pre-construction phase.

Standard best practice construction measures will likely include:

- Ensuring that all site activities in proximity to watercourses are controlled and are in accordance with relevant legislation and undertaken in compliance with the relevant Guidance for Pollution Prevention (e.g. GPP5[8],) and industry best practice (CIRIA C532[9], CIRIA C741[10]).
- Additional measures such as silt fencing, silt busters or bales may be necessary to prevent silt or contaminants from being released into watercourses connected to the site via drainage measures or as surface run off.
- Works will be undertaken in-line with BS 5228 ‘Code of practice for noise and vibration control on construction and open sites’.
- This will include the use of noise control equipment such as jackets, hoods and shrouds on equipment such as generators.
- Constant monitoring of dust levels and adopting effective methods of work to prevent dust becoming airborne at the source for example, using wet sweeping methods to prevent accumulation of dust and mud and using effective exhaust ventilation and filtering to minimise potential dust pollution.

[8] Guidance for Pollution Prevention: Works or maintenance in or near water (v1.2, 2018).

[9] CIRIA 532 ‘Control of water pollution from construction sites: guidance for consultants and contractors’ (2001).

[10] CIRIA 741 ‘Environmental Good Practice on Site’, Fourth Edition (2015).

- Spill kits deployed in the event of a spillage. In the event of a pollution incident, work should cease in the vicinity of the incident and contaminants must be cleaned up immediately.
- Plant will be regularly serviced and maintained.
- Plant will be located as far as reasonably practicable away from ecological receptors and will be shut down when not in use.
- Trenches and holes will be covered when not being worked on to prevent entry by mammals and where this is not possible exits and escape routes such as ramps or mammal ladders will be provided.
- An Ecological Clerk of Works (EcoW) will be employed as part of the Proposed Development, to carry out duties including:
    - The ECoW will be employed to oversee management of ecological issues as they arise, and oversee specific avoidance and mitigation required for ecological features.
    - The ECoW will deliver Toolbox Talks prior to the commencement of construction works to all site personnel to inform them of important ecological features at the site including INNS, protected and notable species. An associated register of attendance will be signed and kept as a record; and a copy of the toolbox talk left at the site office for reference.
    - Prior to taller vegetation clearance (noting this is very limited, small areas of scrub only), the ECoW will undertake the following inspections:
        - A nesting bird check will be undertaken by the ECoW, should the construction works be undertaken during the breeding bird season (March to August inclusive), within 24 hours prior to vegetation clearance or construction to identify any nesting birds within the site or within 20 m of the site. Should nests be found, the ECoW will advise a suitable buffer zone. No works will be able to continue within the buffer zone until the chicks have fully fledged as advised by the ecologist;
        - Immediately prior to vegetation clearance the ECoW will check the site for any potential hedgehog nests. If found the nest will be moved by the ECoW by hand to suitable habitat off site to safeguard the species;
        - Prior to construction the ECoW will check the site for any plant INNS. The one stand of cotoneaster identified to date is outside likely work area but spread could occur. A check prior to construction will be undertaken to ensure no INNS have become established on site, that could be spread during construction which would be an offence under the WCA and/or the Invasive Alien Species (Enforcement and Permitting) Order 2019. If any INNS are found an Invasive Species Management Plan will be written and provided as part of the CEMP.
- **Crossing of the Wraysbury River:** Installation works will span a 3-week period inclusive of additional surveying to identify additional environmental constraints to inform the appropriate control measures prior to commencing works. Water levels and weather conditions upstream are continuously monitored to determine whether conditions are suitable to commence works. Upon commencement, work is done to secure the access and egress points on either side of the crossing before plant and machinery is introduced to the site. A temporary dam is established by competent operators and submersible pumps are used to dewater the crossing area. Once conditions are sufficiently dry and safe, a trench is excavated using conventional open cut means, with cables and ducted installed prior to reinstatement. The process

is repeated for the other section of the crossing after which the temporary is removed and the watercourse returned to its natural state.

- **Habitat Reinstatement:** Installation works are temporary and as soon as sections are completed, associated soils and stored turves will be replaced. Should turves not be suitable for reinstatement, a suitable seed mix will be used to recreate habitat. Full details of soil and turf storage, seed mix details and aftercare will be specified within the CEMP.

4.3 Assessment of Effects

Taking the above into account, the principal potential impacts of the Proposed Development are outlined in the following sections.

4.3.1 International Designed Sites

Full details of the screening of effects on international sites are included in the separate shadow HRA report for the project. All pathways for effect were screened out, except for potential disturbance effects.

However, it is noted that:

- The installation of the cable between the two Staines Reservoirs and King George VI Reservoir along the A3044 highway will be undertaken in a relatively short period (estimated at 8-10 weeks).
- Works will typically occur during daylight hours only. Any work in the hours of darkness will include minimum necessary task lighting that will be directional and not impacting the reservoirs.
- The works will not include methods that generate significant levels of noise and vibration (percussive piling for example), being undertaken in-line with BS 5228.
- This work area is within the highway boundary, that already experiences high background levels of disturbance from traffic including freight. Additionally, the works are close to Heathrow airport with associated overflying aircraft that contribute to background noise levels.
- The two Staines Reservoirs and King George VI Reservoirs are raised significantly above the highway. No open water is visible from the highway and any waterfowl on the reservoir will not have a line of sight to the works.

As a result, disturbance factors at the Proposed Development Site will result in **no effect** on these features of international value.

4.3.2 All other protected sites and deciduous woodland priority habitat

There are a range of other valued ecological receptors close to the Proposed Development work area, including the Staines Moor SSSI, Wraysbury Reservoir SSSI, Arthur Jacob Nature Reserve LNR and various SNCIs. Areas of deciduous woodland priority habitat are also present within 20 m. Whilst no direct habitat loss will occur as works are outside the respective site boundaries and woodland extents, it is relevant to consider temporary disturbance and degradation effects.

The embedded mitigation measures included within the Proposed Development design will ensure that impacts are avoided. Notably these include:

- Making site staff aware of the location and value of sites (via ECoW toolbox talks and measures within the CEMP) and ensuring no entry by staff or plant.
- Careful control of potential sources of pollution, including protecting sites from surface water flows from the construction area.

- Mitigation measures included to control air borne effects (dust and air quality) and controls over noise.
- Avoiding the spread of INNS to the sites.

As a result, temporary disturbance and degradation will not occur and **no effect** on these protected sites and woodland habitat will occur.

4.3.3 Wraysbury River riparian corridor

As described in Section 4.2, if the Wraysbury River is open cut, this will be a short-term impact over a very limited section of the channel and riparian zone (approximately 10m total width, with the trench around 1m wide). This will immediately be reinstated.

Throughout the installation, standard good practice working methods will be in place to control potential pollution and sedimentation, so no downstream impacts will occur.

Considering the limited duration and extent of impacts to the channel and riparian zone, **no significant effect** on this feature of local value is predicted.

4.3.4 Nesting Birds

As outlined in Section 4.2, to ensure legal compliance, if vegetation that could support nesting birds requires removal, this will either be undertaken outside the breeding period or checked in advance by the ECoW.

With these mitigation measures in place, **no significant effect** on the local nesting bird population (valued as less than local value) will occur.

4.3.5 Bats

The GLTA identified a total of 13 individual trees with PRFs. The Proposed Development has been designed to avoid these trees. Any works that are required within the root protection areas of these specimens will be hand dug, though these will be avoided wherever possible by siting the cable trench further from the trees.

There are no significant noise or vibration effects associated with the Proposed Development and baseline levels are substantial. As such, should any bats be using the trees at the time of construction, disturbance effects will be avoided. **No significant effect** on bats, a feature of local value, will occur.

4.3.6 Otter and Water Vole

Although no signs of otter or water vole have been identified, in-line with good practice methods a pre-construction check will be undertaken before the commencement of works to confirm the absence of these species from the work area and appropriate buffer. This will include checks for otter holts and water vole burrows.

In the event such resting places are identified, work areas will either be adjusted to avoid impacts or a suitable package of mitigation measures, potentially including a licence application to Natural England, will be devised and implemented.

Additionally, with standard good practice working methods in place to control potential pollution and sedimentation, no downstream impacts will occur.

With these mitigation measures in place, **no effect** on otter or water vole (precautionarily valued local value) will occur.

4.3.7 Badger

Although no badger setts have been identified, in-line with good practice methods a pre-construction check will be undertaken before the commencement of works to confirm the absence of setts from the work area and appropriate buffer.

In the event a sett is identified, work areas will either be adjusted to avoid impacts or a suitable package of mitigation measures, potentially including a licence application to Natural England, will be devised and implemented.

With these mitigation measures in place, **no significant effect** on badgers (valued as less than local value) will occur.

4.3.8 Invasive Non-Native Plants

The embedded mitigation measures include for a pre-construction check for INNS of plants ahead of construction. Should these be found, notably at the precise crossing of the Wraysbury River, they will either be avoided or safely removed, with measures detailed in the CEMP and included in an invasive species management plan as appropriate.

Where relevant, the CEMP will also include details of biosecurity measures to be employed during construction to avoid accidental spread of INNS during the works.

4.4 Cumulative Effects

Consideration has been given to other plans and projects that could have overlapping construction phases with the Proposed Development. At the time of writing, the most relevant project is the main data centre / BESS application and associated new cable projects to Iver substation.

However, considering embedded mitigation measures for the Proposed Development and control measures that will be built into the CEMP, no impacts have been identified that would raise predicted effects on ecological receptors to levels that would be significant.

The only additional project identified is the following (as identified in the EIA screening report for the Proposed Development):

Jupiter House, Horton Road (ref: P/09811/001) – Demolition of the existing buildings (Valerie House and Jupiter House) and the development of 7,320m² GEA of flexible light industrial, general industrial and storage and distribution employment floor space, with associated service yards, car parking and landscaping. – approximately 140 metres west - Approved April 2022.

Even if this were to happen at the same time as the Proposed Development's construction, no impacts have been identified that would raise predicted effects on ecological receptors to levels that would be significant.

As such, **no significant cumulative impacts are predicted**.

4.5 Summary of Effects

A summary of potential impacts, proposed mitigation and residual is provided for each important ecological feature included in the assessment in **Table 4-1**.

Table 4-1: Summary of Potential Impacts, Proposed Mitigation and Residual Effects.

Ecological Feature	Potential Impacts	Proposed Mitigation	Means of Delivering Mitigation	Residual Effects
South West London Reservoirs SPA & Ramsar site	Disturbance to qualifying features	▪ Site staff briefings by ECoW ▪ Limited construction duration ▪ Controls on noise and vibration	CMP and CEMP	None (No effect).
SSSIs (Staines Moor, Wraysbury Reservoir), Arthur Jacob Nature Reserve LNR, SNCIs, Deciduous woodland priority habitat	Habitat degradation	▪ Site staff briefings by ECoW ▪ Pollution prevention controls ▪ Controls on air quality and dust ▪ Biosecurity controls on INNS	CMP and CEMP	None (No effect).
Wraysbury River riparian corridor	Habitat loss and degradation	▪ Site staff briefings by ECoW ▪ Pollution prevention controls ▪ Controls on air quality and dust ▪ Reinstatement of bed and bankside habitat ▪ Biosecurity controls on INNS	CMP and CEMP	None (No effect).
Nesting birds	Destruction of nests	▪ Site staff briefings by ECoW ▪ Timing of clearance ▪ Checks in advance	CMP and CEMP	No Significant Effect at Less than Local Level.
Otter and water vole	Disturbance	▪ Site staff briefings by ECoW ▪ Timing of clearance ▪ Checks in advance	CMP and CEMP	None (No effect).

Ecological Feature	Potential Impacts	Proposed Mitigation	Means of Delivering Mitigation	Residual Effects
Bats	Disturbance of tree roosts	▪ Detailed design phase to micro-site alignment away from trees ▪ Site staff briefings by ECoW ▪ Hand digging / low noise and vibration techniques	Detailed design phase CMP and CEMP	No Significant Effect at Local Level.
Badger	Disturbance / sett destruction	▪ Pre-construction check ▪ Site staff briefings by ECoW	CMP and CEMP	No Significant Effect at Less than Local Level.
INNS Plants	Spread of INNS	▪ Pre-construction check / removal ▪ Site staff briefings by ECoW ▪ Biosecurity control measures	CMP and CEMP	None (No effect).

5.0 Conclusion

This ecological impact assessment has assessed potential effects on ecological receptors for the Laleham substation corridor project. Given the nature and location of works, overall ecological impacts are minor, and with the inclusion of embedded mitigation measures effects are either eliminated or reduced to levels that are not significant. Mitigation measures can be secured and delivered by a CMP and CEMP for the Proposed Development.

Appendix A Relevant Legislation and Planning Policy

Ecological Impact Assessment

Manor Farm Cables: Laleham Substation Corridor

Juniper Energy Limited

SLR Project No.: 402.065673.00001

Relevant Legislation and Planning Policy

Legislation

A summary of legislation relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original legislation should be consulted for definitive information.

Environment Act (2021)

The Environment Act has wide ranging provisions including those around:

- Environmental governance;
- Environmental regulation;
- Waste and resource efficiency;
- Air quality and environmental recall;
- Water;
- Nature and biodiversity;
- Conservation covenants.

Of particular relevance is Part 6 of the Act which introduces "biodiversity gain in planning" and will apply in England to planning applications under the Town & Countryside Act and the Planning Act. Schedule 14 now requires that biodiversity gain be a condition of planning permission in England. These changes will be enacted through subsequent secondary legislation or regulations. This part of the Act also changes the responsibilities that Government or public bodies have by strengthening the existing NERC Act biodiversity duty. Public authorities are now required to seek to conserve and enhance biodiversity in the exercise of their functions.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. Under the Habitats Regulations it is an offence to deliberately capture, kill or disturb[1] wild animals listed under Schedule 2 of the Regulations as well as damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time). European Sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), are also protected under the Habitat Regulations, and any proposal that could affect them will require an Habitats Regulations Assessment (HRA).

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Part 3 of the regulations provide for the protection of areas of habitats or species where maintenance of the status of water is an important factor. Under the regulations additional consideration may need to be given to sites in the form of a Water Framework Directive (WFD) assessment where a project lies in proximity to a water body or to linked water bodies which could be affected. This includes consideration

[1] Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.

of whether water bodies are WFD receptors in particular those of high status or have high status morphology.

Natural Environment & Rural Communities (NERC) Act 2006

Section 40 of the NERC Act 2006 places a duty on public authorities to have regard to the purpose of conserving biodiversity in the exercise of their functions. Public authorities include government departments, local authorities and statutory undertakers.

Section 41 of the Act (Section 42 in Wales) requires the publication of a list of habitats and species publish which are of principal importance for the purpose of conserving biodiversity. The Section 41 list is used to guide authorities in implementing their duty to have regard to the conservation of biodiversity.

Note that Sections 40 and 42 were superseded in Wales by the Environment (Wales) Act 2016 (see below).

Protection of Badgers Act 1992

The Protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger or to intentionally or recklessly interfere with a badger sett. Sett interference includes disturbing badgers whilst they are occupying a sett or obstructing access to it.

Wildlife & Countryside Act 1981

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CRoW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act; or
- Plant or cause to grow in the wild any plant species listed under Schedule 9 of the Act.

Planning Policy

A summary of national planning policy relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original policy documents should be consulted for definitive information. For local planning policy relevant to biodiversity the relevant local plans should be consulted.

1.1.1 National Planning Policy (England)

The National Planning Policy Framework (NPPF)[2] sets out guidance for local planning authorities and decision-makers in how to apply planning policies when drawing up plans and making decisions about planning applications. Along with Government Circular 06/05[2], the broad policy objectives in relation to

[2] Ministry of Housing, Communities & Local Government (2025). National Planning Policy Framework.

the protection of biodiversity and geological conservation in England through the planning system are set out. Specific policies relating to habitats and biodiversity are set out in paragraphs 174 and 179-182 of the NPPF.

Paragraph 174 states that:
"Planning policies and decisions should contribute to and enhance the natural and local environment by:
a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
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;
c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development f) should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
F) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate".

Paragraph 179 states that:
"To protect and enhance biodiversity and geodiversity, plans should:
a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

Paragraph 180 states that:
"When determining planning applications, local planning authorities should apply the following principles:
a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

Paragraphs 181-182 relate to European sites (referred to as habitats sites) and state:

“The following should be given the same protection as habitats sites:
a) potential Special Protection Areas and possible Special Areas of Conservation;
b) listed or proposed Ramsar sites; and
c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.”

Appendix B Figures

Ecological Impact Assessment

Manor Farm Cables: Laleham Substation Corridor

Juniper Energy Limited

SLR Project No.: 402.065673.00001

500000 502500 505000 507500 510000

177500

175000

172500

N

LEGEND

- 132kV Site Boundary
- 132kV Site Boundary 2 km Buffer
- Ramsar
- Special Protection Area (SPA)
- Site of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)

Arthur Jacob Nature Reserve LNR

South West London Waterbodies SPA

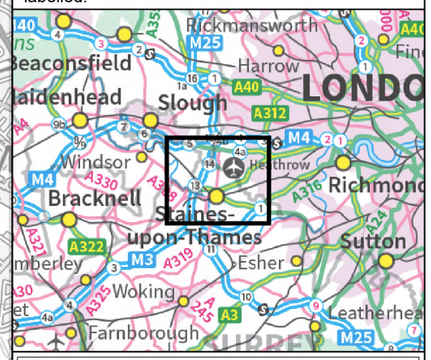
South West London Waterbodies Ramsar

Staines Moor SSSI

Wraysbury Reservoir SSSI

Bedfont Lakes LNR

Note:
Only features that intersect the 2km buffer are labelled.



0 1 2 Kilometres

JUNIPER ENERGY LTD

SLR

MANOR FARM CABLES:
LALEHAM SUBSTATION CORRIDOR

ECOLOGICAL IMPACT ASSESSMENT

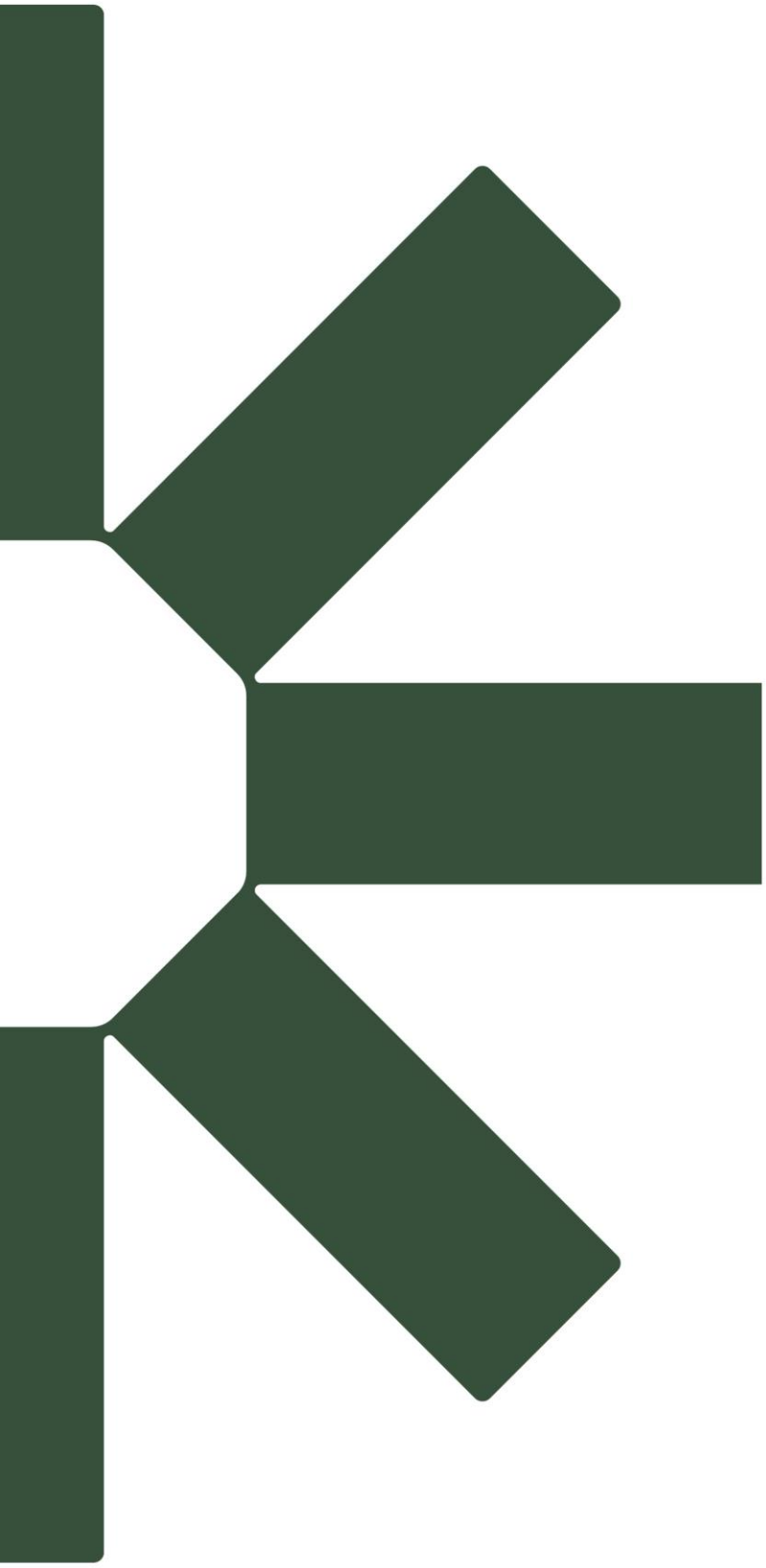
STATUTORY DESIGNATED SITES

FIGURE 1

Scale 1:37,500 @ A3

Date SEPTEMBER 2025

402.065673.00001.0018.0 Statutory Designations



Making Sustainability Happen

Shadow Habitat Regulations Assessment

Manor Farm Cables: Laleham Substation Corridor

Juniper Energy Limited

Prepared by:

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SLR Project No.: 402.065673.00001

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