

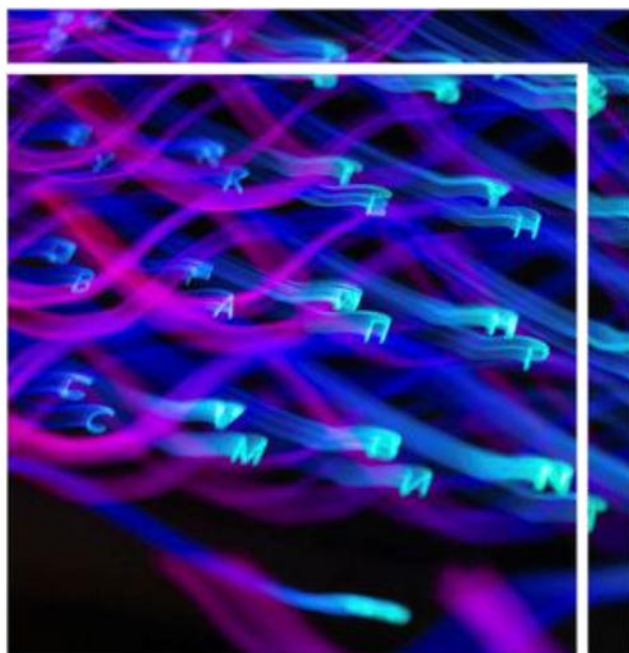
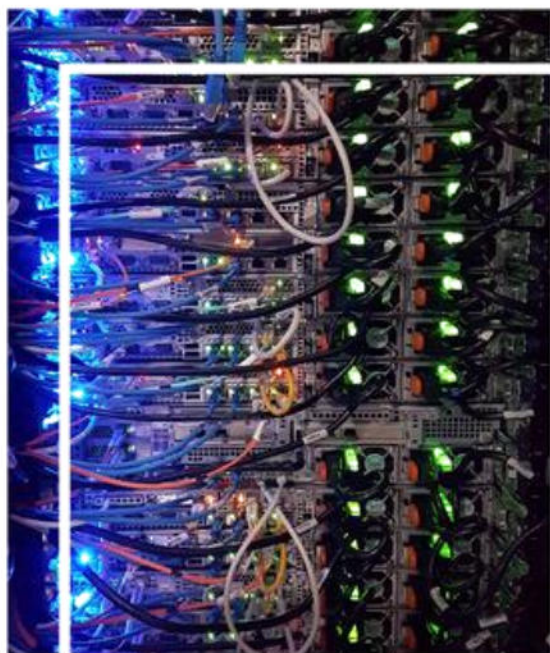


Thames Valley Park Data Centre

Preliminary Ecological Appraisal

Tyréns Hilson Moran | On Behalf of FH Trustees
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P05	21/9/2026	UPDATED SITE AREA

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Executive Summary

Tyréns Hilson Moran has been commissioned by BCS to undertake a Preliminary Ecological Appraisal (PEA) and associated report for the proposed data centre at Thames Valley Business Park. The Site comprises three office buildings with associated parking, vehicle access, pedestrian paths, landscaping and an area of woodland around the west and south perimeter of the Site. The existing Site covers approximately 5.4 hectares; however, the site walkover and BNG baseline assessment were undertaken using a larger study area of 5.9 hectares.

Based on the habitats characterised during the extended UKHab Survey, the Site consists primarily of developed land, introduced shrub, mixed scrub, modified grassland, hedgerows, individual trees and semi-natural woodland, and currently supports 22.65 biodiversity units and 2.69 Hedgerow units.

The Site supports limited ecological value overall due to its largely developed nature. Most habitats offer only low suitability for protected or notable species. However, the perimeter woodland and pockets of scrub and grassland provide suitable terrestrial habitat for amphibians, nesting habitat for birds, and low to moderate potential roost features for bats.

The Site offers limited nesting and foraging opportunities for most birds due to the extent of hardstanding and buildings. However, the woodland around the perimeter provides suitable nesting sites and was observed supporting species including red kite, great tit, jay, jackdaw, pheasant, European greenfinch, robin, wood pigeon, dunnoek, chaffinch and redwing. Woodland specialist species in the area include great tit, jay, chaffinch, crossbill and firecrest. While common urban species predominate, the presence of active nests could pose a constraint during construction.

Most habitats present on the Site offer only limited opportunities for protected or notable species. However, the surrounding landscape contains a network of greenspace, woodland belts and numerous waterbodies, which collectively increase the likelihood of occasional use of the Site by wildlife moving through the area. Incidental use by nesting birds, amphibians, reptiles and hedgehogs cannot therefore be discounted.

Amphibians are of particular relevance due to the presence of six waterbodies within 500 m, with the most suitable pond returning a Habitat Suitability Index (HSI) score of 0.81 (Excellent) for great crested newt habitat suitability. While the Site lacks breeding habitat, the pockets of scrub, woodland edge and unmanaged ground provide potential terrestrial refuge. The Site is therefore considered to be of Moderate ecological value for amphibians, and eDNA surveys are recommended.

The buildings on the Site were assessed as having negligible bat roost potential, with no evidence of roosting identified. Trees within the woodland margins offer low to moderate potential for roosting bats and should be subject to a Ground Level Tree Assessment (GLTA), with potential emergence or climbing surveys thereafter. If a resting place is proposed to be disturbed or destroyed, a European Protected Species (EPS) licence must be acquired before works commence.

Recommendations include the preparation of a Construction Environmental Management Plan (CEMP) and Lighting Strategy to protect adjacent habitats and species. A Reasonable Avoidance Method Statement (RAMS) will also be required for nesting birds, bats and amphibians.

Further enhancement opportunities include the incorporation of habitat enhancement to the landscape design, native planting, bird nesting features, and invertebrate enhancements such as log piles. A Landscape and Ecological Management Plan (LEMP) is recommended to ensure long-term habitat success.

The Site has been surveyed by a suitably qualified ecologist who has been involved with the scheme from an early stage in order to provide relevant advice and inform the development design, in order to reach optimal ecological outcomes given the nature and scale of the scheme. Consequently, the Proposed Development is deemed eligible for the credits available under LE 02, provided the credit criteria are met following assessment by the BREEAM Assessor.

The Site currently supports 22.65 biodiversity units. To avoid, protect, reduce, limit, control or compensate for any impacts on ecological receptors, recommendations are outlined in this report. It is expected that, if all of the recommendations to protect the ecological value of the Site are implemented, the Proposed Development is deemed eligible for the credits available under LE 03, provided the credit criteria are met following assessment by the BREEAM Assessor.

A number of recommendations have been made that would enhance the ecology of the Site. It is expected that, if all of the recommendations to enhance the ecological value of the Site are implemented, the Proposed Development will be eligible for the credits available under LE 04, provided the BREEAM Assessor is satisfied that all of the credit criteria are met.

A number of recommendations have been made that would manage and maintain ecology throughout the project. It is expected that, if all of the recommendations to protect and maintain the ecological value of the Site are implemented, including the preparation of an LEMP to ensure long-term habitat success, the Proposed Development will be eligible for the credits available under LE 05, provided the BREEAM Assessor is satisfied that all of the credit criteria are met.

The desk study and Site walkover indicate that the Site is likely to be of Low Level importance for nature conservation. By following the recommendations outlined in this report, the Proposed Development is likely to conform with relevant planning policy and legislation, and deemed eligible for the BREEAM credits available under LE 02, LE 03, LE 04, and LE 05.

1. Introduction

1.1. Background

Tyréns Hilson Moran has been appointed by BCS Consultancy Ltd, on behalf of FH Trustees ('the applicant') to undertake a Preliminary Ecological Appraisal (PEA) and associated report for Thames Valley Park Data Centre, located at Microsoft Campus, Thames Valley Park, Reading, RG6 1WG, National Grid Reference SU 74711 74134 ('the Site').

The Site location is identified in Figure 1-1.

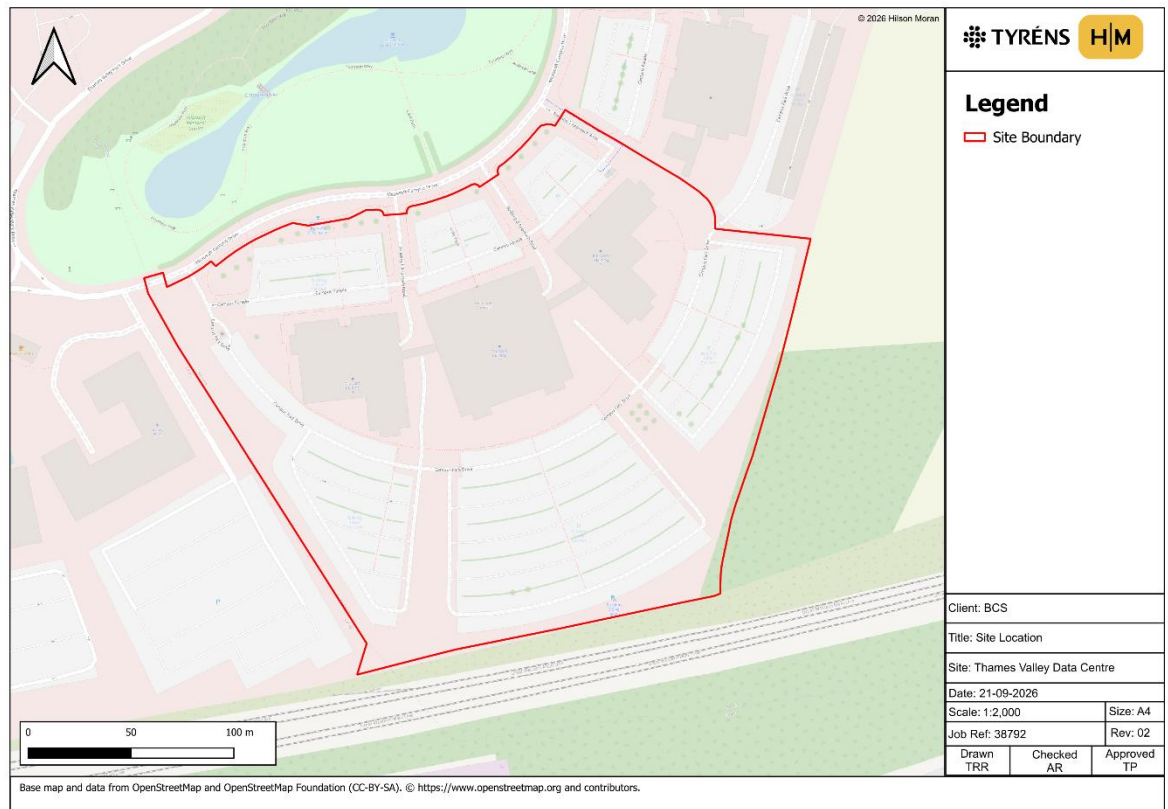


Figure 1-1 Site Location

The Site currently contains three office buildings formerly occupied by Microsoft as part of their long-established presence at Thames Valley Park. Microsoft have already vacated two of the three buildings, and while they retain a lease on the remaining building, they are not fully occupying it. Microsoft has confirmed that they do not intend to remain on the campus and will vacate entirely at the expiry of their lease in December 2027.

The Proposed Development comprises an *“outline planning application (all matters reserved except for Access) for demolition of existing buildings and the construction of a data centre (Use Class B8), fuel cells for energy generation,*

ancillary office space and associated plant, drainage, backup power generation, sub-station, car parking, landscaping, engineering works and formation of and alterations to access roads” (‘the Proposed Development’).

The Site comprises approximately 5.4 hectares (ha) of land.

1.2. Purpose

The PEA has been undertaken as an assessment of the ecological features present or potentially present within the Site and wider study area. The wider study area describes the area over which ecological features may be affected by the biophysical changes caused by the Proposed Development and its associated activities. The structure and content of the report is based on current ecological report writing guidance^{i, ii}.

This report was informed by:

- a desk study;
- an extended UK Habitat Classification (UKHab) survey;
- a Habitat Suitability Index (HSI) assessment for ponds within 500 m of the Site; and
- a daytime external and internal inspection of buildings and a ground level assessment of trees for suitability to support roosting bats.

1.3. BREEAM Certification

BREEAM is an assessment system that allows the sustainability of a development to be established against a number of criteria, including energy and water efficiency, sustainable resource use, re-use of land, pollution prevention and impacts on biodiversity and ecology. Buildings are graded from ‘Pass’ to ‘Outstanding’ depending on their overall sustainability performance.

The aim of LE 02 – Managing impacts on ecology is to determine the existing ecological value associated with the Site, including surrounding areas, and the risks and opportunities for ecological protection and enhancement as part of the project. Credits are rewarded based on the completion of a comprehensive site survey and assessment to evaluate the ecological baseline, identification of potential risks, and outlining opportunities for improvement.

The aim of LE 03 – Ecological risks and opportunities is to avoid, or limit as far as possible, negative ecological impacts associated with the Site and surrounding areas resulting from the project. Credits are rewarded based on measures taken to minimise the negative effects of site preparation and construction on existing ecological features and biodiversity.

The aim of LE 04 – Ecological change and enhancement is to enhance ecological value of the area associated with the Site in support of local, regional and national

priorities. Credits are rewarded based on implementing actions that increase the Site's ecological value beyond its baseline.

The aim of LE 05 – Long term ecological management and maintenance is to secure ongoing monitoring, management and maintenance of the Site and its habitats and ecological features, to ensure intended outcomes are realised for the long term. Credits are rewarded based on implementing measures for the long-term management and maintenance of ecological features and enhancements on the development site.

1.4. Scope

This PEA report aims to:

- identify designated nature conservation Sites located either within the Site or the wider study area of the Proposed Development;
- assess the potential for the Site and the wider study area of the Proposed Development to support populations of protected or notable species and habitats or species and habitats of nature conservation importance;
- record the main habitats and features of ecological interest on the Site;
- assess the overall ecological importance of the Site;
- provide recommendations for any additional further surveys; and
- provide preliminary recommendations for the protection and enhancement of the Site's ecological features.

1.5. Legislation and Policy Context

This report has been prepared with due regard and consideration to applicable legislation and national and local planning policy relating to ecological features.

Legislation relevant to this assessment includes:

- Environment Act 2021^{xvii};
- Conservation of Habitats and Species Regulations 2017 (as amended)^{xviii};
- Wildlife and Countryside Act 1981 (as amended)^{ix};
- Countryside and Rights of Way (CROW) Act 2000^{xix};
- Natural Environment and Rural Communities (NERC) Act 2006^{xxi};
- National Planning Policy Framework (NPPF)^{xxii};
- Wokingham Borough Council Local Plan 2010^{xxiii}.

Detailed information regarding these documents is provided in Appendix A.

1.6. Declaration of Conformity

The PEA been prepared by Toby Ryder Richardson who holds a BSc Environmental Science from the University of Manchester and is a student member of CIEEM.

This report has been prepared with the support of Amina Reeb, who holds an MSci Biodiversity and Conservation from University College London and is an associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM) (ACIEEM). Amina is covered by CIEEM's professional CIEEM Code of Conduct and is subject to peer review.

This report has been reviewed by Tom Reade who is a full member of the Institute of Environmental Sciences (IES), and a Chartered Environmentalist (CEnv). As such, Tom is considered to be suitably qualified to review this document.

The field survey and reporting have been completed in accordance with best practice principles outlined by CIEEM and is an accurate and realistic assessment of Site conditions and potential enhancement works. The report complies with the CIEEM Code of Conductⁱⁱⁱ and British Standard 42020ⁱⁱ.

1.7. Disclaimer

This report has been prepared on behalf of and for the exclusive use of the client for whom the services were undertaken and is subject to and issued in connection with the provisions of the agreement set out by Hilson Moran Partnership Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party. Furthermore, this report is subject to the following limitations:

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2. Assessment Methodology

2.1. BSI Guidance 42020: Biodiversity- Code of Practice for Planning and Development

The British Standard Institute's (BSI) 42020: Biodiversity- Code of Practice for Planning and Developmentⁱⁱ, (known as BS 42020) was developed to bridge the gap between specific best practice guidelines and professional Codes of Conduct and build upon relevant legislation and policy relating to biodiversity.

In addition, BS 42020 provides a framework for the assessment of biodiversity and recommendations for the content and detail of reporting on biodiversity features with the aim of improving standards within the profession. This ecological appraisal, including reporting, has been produced in consideration of and compliance with BS 42020.

2.2. Desk Study

The desk study for the assessment has considered the following:

- Statutory designated sites up to 2 km from the Site, including Special Areas of Conservation (SAC), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Non-statutory designated sites, including Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWS), up to 2 km from the Site;
- International and national statutory designated sites with bats as a qualifying feature for designation, up to 10 km from the Site;
- Records of protected and notable species up to 2 km from the Site; and
- Ponds potentially suitable for amphibians within 500 m of the Site.

The Thames Valley Environmental Records Centre (TVERC) was contacted to provide details of locally designated sites and protected species within 2 km of the Site.

In addition, the Multi Agency Geographic Information for the Countryside (MAGIC) website^{iv} was searched for supplementary information on statutory sites. This included a search for European Protected Species (EPS) licences issued within 2 km of the Site. Supplementary information on the Site and its surroundings was obtained from aerial images available from GoogleTM Earth Pro.

2.3. Extended UKHab Survey

An extended UKHab survey of the Site was undertaken by Amina Reeb and Toby Ryder Richardson on 16th March 2026. The weather during the survey was 10 to 11°C, wind at Beaufort Scale 4 and 50% Cloud Cover.

The survey consisted of a Site walkover and preliminary assessment of habitats, land use and ecological features. The main habitats present were recorded using standard UKHab survey methodology as described in the UKHab v2 Documentation^v. In addition to general habitat classification, a list was compiled of observed plant species, using the nomenclature of Stace, 2010^{vi}, with common and Latin names referred to in the first instance after which only the common names are used. The abundance of each species was estimated for each habitat respectively using standard 'DAFOR' codes:

- D = Dominant
- A = Abundant
- F = Frequent
- O = Occasional
- R = Rare

The Site was assessed for its potential to support protected and notable species such as reptiles, amphibians, bats and [REDACTED] and was inspected for signs of any invasive plant species subject to legal controls in order to identify potential ecological constraints and to inform recommendations for further survey requirements for these species.

2.4. Habitat Suitability Index

Ponds and ditches within 500 m of the Site were assessed using the HSI. Ponds on the far side of major barriers, such as main roads, were not considered in this assessment, in line with best practice guidance^{vii}. The ponds and ditches were examined with reference to the ten HSI scoring criteria, which are: SI1: Geographical location; SI2: Pond area; SI3: Pond drying; SI4: Water quality (as indicated by the diversity of aquatic plants and invertebrates); SI5: Shade; SI6: Waterfowl; SI7: Fish; SI8: Abundance of other ponds within a one kilometre radius; SI9: Quality of terrestrial habitat; and SI10: Macrophyte cover (such as aquatic and emergent plants).

The assessment followed guidance in relation to interpreting HSI scores, following the categorical scale shown in Table 2-1.

Table 2-1 Pond Habitat Suitability Index Categories

HSI Score	Pond Suitability for Great Crested Newt
< 0.5	Poor
0.5 – 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good

HSI Score	Pond Suitability for Great Crested Newt
> 0.8	Excellent

2.5. Daytime Bat Walkover and Preliminary Roost Assessments

A Daytime Bat Walkover (DBW) was undertaken by Amina Reeb and Toby Ryder Richardson. All suitable habitats for bats to roost, commute, and forage were recorded in line with the Bat Surveys for Professional Ecologists Good Practice Guidelines^{viii}.

For structures and buildings, external Preliminary Roost Assessments (PRA) were undertaken. Buildings were examined for evidence of bats such as droppings, urine staining, feeding remains, and potential roosting features. The following building features are considered suitable for supporting roosting bats:

- Buildings constructed pre-20th to early 20th century;
- Agricultural buildings of brick, stone or timber construction;
- Large roof void(s) with unobstructed flying spaces;
- Large roof timbers with mortise joints, cracks and holes;
- Entrances into buildings for bats to fly through;
- Poorly maintained buildings with access points into roofs, walls, bridges, without being too cool or draughty;
- Roof warmed by the sun e.g. South facing;
- Weatherboarding and/or hanging tiles with gaps;
- Undisturbed building roofs and structures;
- Buildings and built structures in proximity to each other providing a variety of roosting opportunities throughout the year; and
- Buildings and built structures close to good foraging habitat e.g. Mature trees, parkland, woodland or wetland.

All assessed buildings were classified based on the presence of suitable bat roosting features.

For individual trees not part of a larger cluster of woodland, a full Ground Level Tree Assessment (GLTA) was undertaken, and individual trees were classified based on their potential to support bat roosts. For trees part of a larger cluster, a high-level assessment was undertaken instead.

Tree features considered suitable for supporting roosting bats include:

- Woodpecker, squirrel, knot, or rot holes;
- Pruning cuts;
- Wounds;
- Cankers;

- Compressions;
- Cracks, splits, or snaps;
- Fissures;
- Forks;
- Desiccation;
- Loose Bark; and
- Dense Ivy Cover.

The bat roost potential classifications are detailed in Table 2-2.

Table 2-2 Building Bat Roost Potential Classification

Bat Roost Potential	Description
Confirmed	Confirmed to support a bat roost.
High	One or more potential roost site that is obviously suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	One or more potential roost site that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
Low	One or more potential roost site that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection and/or suitable surrounding habitat to be used on a regular basis or by a large number of bats (i.e. unlikely to be suitable for hibernation or maternity).
Negligible	No obvious features likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
None	No features likely to be used by roosting bats at any time of the year (i.e. because of a complete absence of crevices/suitable shelter at all ground and underground levels).

2.6. Limitations

The availability and comprehensives of data used in the desk study relies on third party responses and can vary dependent on region and local species. Tyréns Hilson Moran assume that the data used for this report was accurate and complete at the time of the assessment.

The extended UKHab survey provides a snapshot of ecological conditions and does not record plants or animals that may be present at the Site at different times of the year. Whilst the UKHab survey can be undertaken at any time of year, the optimal time period during which most plant species are identifiable is between April and October. The species list provided is not exhaustive and reflects the conditions and timing of the survey, which was undertaken in March and therefore outside the optimal April to October window for plant identification.

3. Baseline

3.1. Site Context

The Site occupies an area of approximately 5.4 ha located at Thames Valley Park, Thames Valley Park Drive, Sonning, Reading RG6 1RB, centred on National Grid Reference SU 74531 74068. The ecological survey covered a wider 5.9 ha area based on the Site boundary available at the time of survey, whereas the current application Site extends to approximately 5.4 ha.

The Site is bound to the north by Thames Valley Park Drive, to the south by a national railway line, to the east by agricultural land and to the west by an access road for the wider Thames Valley Park site.

The surrounding area is characterised by commercial, residential, and transport infrastructure uses, including rail and road corridors.

Office buildings are located immediately north and west of the Site. Further north are the River Thames and Thames Valley Park Nature Reserve.

East of the Site is an open, unvegetated area used for agricultural purposes (Sonning Meadows) and residential areas further afield. Immediately south of the Site is a railway line, and beyond the railway is a residential area and the Reading substation.

3.2. Habitats

3.2.1. Buildings

The Site is currently occupied by three buildings all comprising of basement, ground and three upper levels. Building 1 is an occupied office building, building 2 and 3 are unoccupied office buildings. Building 2 is in the process of strip out whereas building 3 has already been stripped back to shell.

The three buildings share a similar layout, form and structure. All areas of importance of building 1 and 2 were accessed during the walk over including the roof top plant (internal and external), atrium, an office floor plate, and the basement and ancillary plant room. The rooftop area and basement of building 3 were inaccessible at the time of the walkover but are assumed similar to buildings 1 and 2 due to their structural and typological similarity.

3.2.2. Developed Land, Sealed Surface

The buildings are encompassed by the wider Site which includes large areas of pedestrian walkways, vehicular access and parking. Vehicular access is via four access roads to the north of the Site. These connect Thames Valley Park Drive to the Site. Parking is both to the front and rear of the Site with the majority of

parking to the rear (south) of the buildings. To the rear of all three buildings is a sealed surface for amenity use. Between the buildings is a sealed surface which appears to be associated with goods delivery.

3.2.3. Mixed and Introduced Scrub

Landscaping to the north side of the Site consists largely of introduced shrub. These run between parking spaces, around the northern Site boundary and between the buildings to the south. These consist primarily of the following species: *Amelanchier spp.* (Juneberry), *Grevillea rosmarinifolia* (Redclaws), *Rubus fruticosus agg.* (Bramble), *Corylus avellana* (Hazel), *Cistus spp.* (Rockrose), *Potentilla spp.* (Cinquefoil), *Symphoricarpos doorenbosii* (Clusterberry), *Abelia grandiflora* (Glossy Abelia), *Photinia fraseri* (Japanese Photinia), *Lavandula angustifolia* (Lavender), *Viburnum opulus* (Guelder-rose), *Buddleja davidii* (Butterfly Bush), and *Urtica dioica* (Stinging Nettle).

Some of the inter-carpark landscaping is made up from mostly native species as opposed to the more introduced mix above. These patches are made primarily from the dominant species rockrose, bramble, *Betula pendula* (Silver Birch), redclaws, and cinquefoil. This occurs to the front and rear of building 3 between rows of parking.

3.2.4. Modified Grassland

Four main areas of modified grassland exist on the Site. The first includes patches of modified grassland to the front of building 1, the second and third are to the rear of buildings 1 and 2 and separate the three buildings' parking areas. These areas of grassland primarily consist of the species *Senecio aureus* (Golden Ragwort), *Bellis perennis* (Common Daisy), *Myosotis sylvatica* (Forget-me-not), *Saxifraga tridactylites* (Break-stone), *Stellaria media* (Chickweed), *Bryophyta spp.* (Mosses), and *Poa pratensis* (Meadow-grass).

The fourth patch is to the east of the Site and connects to front and rear of building 3 around the east side of the building. This patch consists of the aforementioned species plus *Entaglottis sempervirens* (Alkanet), *Taraxacum officinale* (Dandelion), and *Galium aparine* (Cleavers)

3.2.5. Artificial Unvegetated, Unsealed Surface.

There are two small patches of unsealed unvegetated ground to the front of building 1, to either side of the pedestrian access from the road. These consist of loose gravel.

3.2.6. Sparsely Vegetated Land

A patch of sparsely vegetated land exists next to the building 1 approach road. This consist of bare ground with scattered introduced species.

3.2.7. Woodland

An area of semi-natural woodland is present along the eastern, western and southern boundaries of the Site. The woodland supports a mixed species composition and a varied age structure, including hazel, oak, *Ligustrum vulgare* (European Privet), *Prunus cerasus* (Dwarf Cherry), butterfly bush, *Ilex aquifolium* (Holly), *Quercus ilex* (Holm Oak), *Cornus sanguinea* (Dogwood), junberry, bramble, *Prunus spinosa* (Blackthorn), *Pinus sylvestris* (Scots Pine), *Cotoneaster franchetii* (Franchet's Cotoneaster) and *Prunus avium* (Wild Cherry).

The woodland provides suitable habitat for a range of fauna. Several trees support features with potential to offer roosting opportunities for bats (e.g., cavities, lifted bark and pruning wounds), and multiple bird nests were observed within the understorey and shrub layer. A fence line forms the boundary between the woodland and the Site, limiting direct access but not reducing its ecological value or connectivity to surrounding habitats.

3.2.8. Hedgerow

Parking rows both to the front and rear of the Site are separated by a series of hedgerows. These are primarily native hedgerows made up of *Carpinus betulus* (Hornbeam), hazel, *Crataegus monogyna* (Hawthorn) with sparse amounts of junberry. In the hedgerows to the south of the Site, the species assemblage of hedgerows near the pedestrian paths that dissect them consist of introduced species such as butterfly bush and *Pyracantha coccinea* (Firethorn).

3.2.9. Individual Trees

Several mature trees make up the wider landscaping of the Site. To the north side of the Site runs a series of 14 English oak trees. To the east side of building 3 is a row of seven silver birch. To the west of building 1 there is a group of trees made up of one *Ulmus spp.* (Elm), and three *Prunus spp.* (Cherry). The hedgerows and landscaping between the rear Site parking have individual trees at the ends of the hedgerow. The parcel of grassland between the rear parking of building 2 and 3 has 27 individual *Prunus spp.* (Cherry) trees.

Habitats and buildings on Site are shown in Figure 3-1.

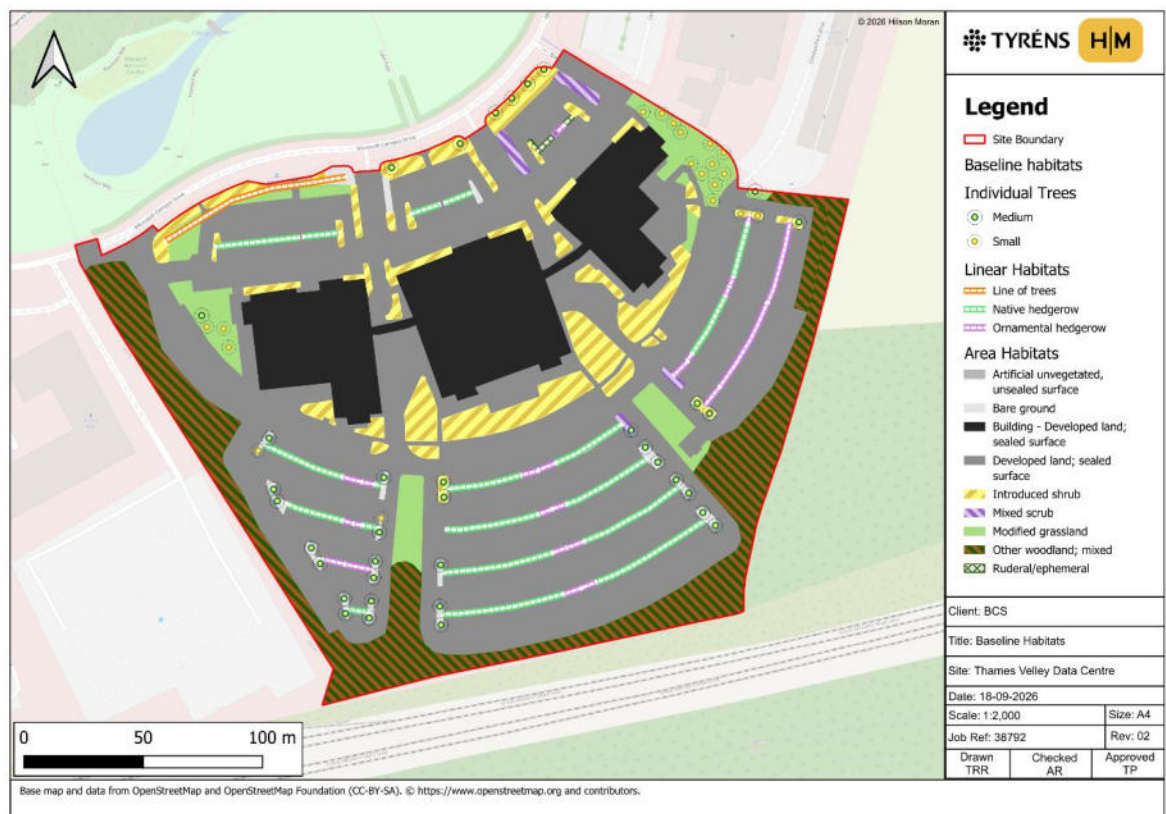


Figure 3-1 Habitats and Buildings on Site

3.3. Designated Sites

3.3.1. Statutory Sites

There are two statutory sites within 2 km of the Site boundary.

Within 5 km of the Site in the wider study area, there are nine statutory sites.

The statutory sites within the wider study area are detailed in Table 3-1 and shown in Figure 3-2.

Table 3-1 Statutory Sites within 5km of the Site Boundary

Site	Designation	Reason for Designation	Site Area (ha)	Distance from Site
Ali's Pond	LNR	Designated following the discovery of a breeding pollution of great crested newts	0.4	1.2 km Northeast
Highwood	LNR	Designated for its mixed lowland woodland and heathland habitats,	15.2	1.3 km South

Site	Designation	Reason for Designation	Site Area (ha)	Distance from Site
		including exotic species and supports a high amount of bird diversity		
Alder Moors	LNR	Designated for its wet marshland and fen habitats, supporting a rich assemblage of wetland species. Alder-dominated carr, swamp communities, and marsh vegetation contribute to its biodiversity value	8.6	2.4 km East
Maiden Erigh Park	LNR	Designated due to its ancient woodland, wetland habitats, wildflower meadow and large lake, supporting a large number of butterflies, moth, bird, fungi and ancient woodland species	10.2	2.8 km South
Lodge Wood and Sandford Mill (2)	SSSI	As above	1.0	3.3 km East
Lavells Lake	LNR	Declared for its important wetland and open-water habitats supporting wetland birds and numerous dragonfly, butterfly, and mammal species.	12.5	3.4 km East
Lodge Wood and Sanford Mill (1)	SSSI	Designated for its wet woodland next to the River Loddon, supporting alder and willow carr with rare and notable wetland plants including Loddon Lily (<i>Leucojum aestivum</i>), primrose, wood anemone, marsh marigold, and others.	1.3	3.5 km East
Clayfield Copse	LNR	Reading's first LNR (1991), recognised for its ancient woodland, wildflower meadows, and hazel coppice management.	8.7	3.5 km Northwest
Pearman's Copse	LNR	Protected as an example of ancient woodland with	6.8	4.7 km South

Site	Designation	Reason for Designation	Site Area (ha)	Distance from Site
		traditional coppiced areas, containing mature oak, ash, and hazel.		

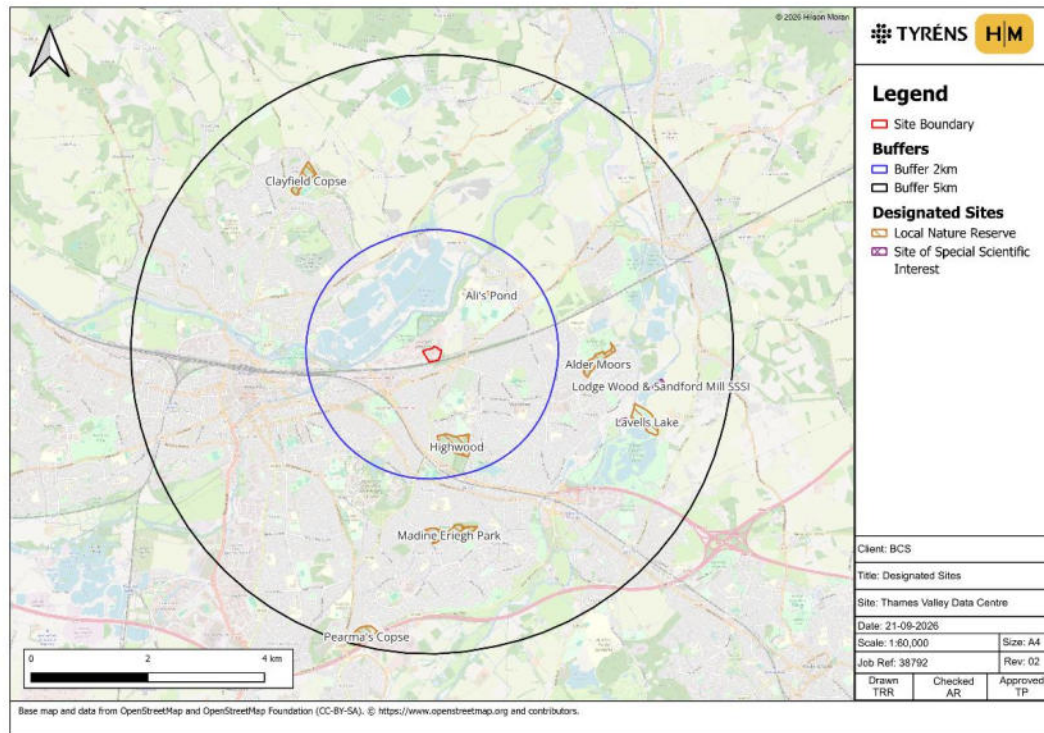


Figure 3-2 Designated Sites within 5km of the Site Boundary

3.3.2. Non-Statutory Sites

There are six Sites of Importance for Nature Conservation (SINC) and two proposed SINC's within 2 km of the Site boundary.

The non-statutory sites are detailed in Table 3-2.

Table 3-2 Non-Statutory Sites within the Wider Study Area

Site	Grade	Reason for Designation	Site Area (ha)
The Coal, Kennet Mouth and Kings Meadow East	Berkshire Local Wildlife Site	Designated for its mature trees, willow beds, floodplain and as a wildlife corridor	3.4

Site	Grade	Reason for Designation	Site Area (ha)
Reading Cemetery	Berkshire Local Wildlife Site	Designated for its semi-natural woodland supporting veteran trees and wildlife typical of a historic cemetery	4.7
High Wood, Bulmershe	Berkshire Local Wildlife Site	No data available	15.5
Thames Valley Park East	Berkshire Local Wildlife Site	No data available	10.6
Bluecot School Woodland	Berkshire Local Wildlife Site	No data available	4.7
Henely Road Gravel Pit	Oxfordshire local wildlife Site	No data available	56.6
Dingley Dell	Proposed Berkshire Local Wildlife Site	No data available	5.8
Extension to Henly Road Gravel Pit	Proposed Oxfordshire local wildlife Site	No data available	29.0

It is noted that Thames Valley Park Nature Reserve, which was raised during stakeholder consultation, does not comprise a separate statutory designated site. The biodiversity value of the reserve is represented through the inclusion of Thames Valley Park East Berkshire Local Wildlife Site within the non-statutory designated site baseline and has therefore been considered within this assessment.

Given the separation distances between the Site and the identified statutory designated sites, together with the urban and commercial nature of the surrounding area, no direct impacts on statutory designated sites are anticipated. The Proposed Development is not expected to result in habitat loss within any designated site, nor is it anticipated to adversely affect the features for which these sites are designated. Indirect effects are also considered unlikely and will be managed through standard good practice measures during construction and operation.

3.3.3. Ancient Woodland

There are ten Ancient Woodland (AW) sites within 2 km of the Site boundary.

The closest is Great Bramleys Park, approximately 500 m south of the Site.

No Ancient Woodland is present within the Site boundary and none will be directly affected by the Proposed Development. The nearest Ancient Woodland is located approximately 500 m from the Site and is separated by existing development, infrastructure and intervening habitats. Consequently, significant direct or indirect effects on Ancient Woodland are not anticipated.

The locations of AW sites are shown in Figure 3-3.

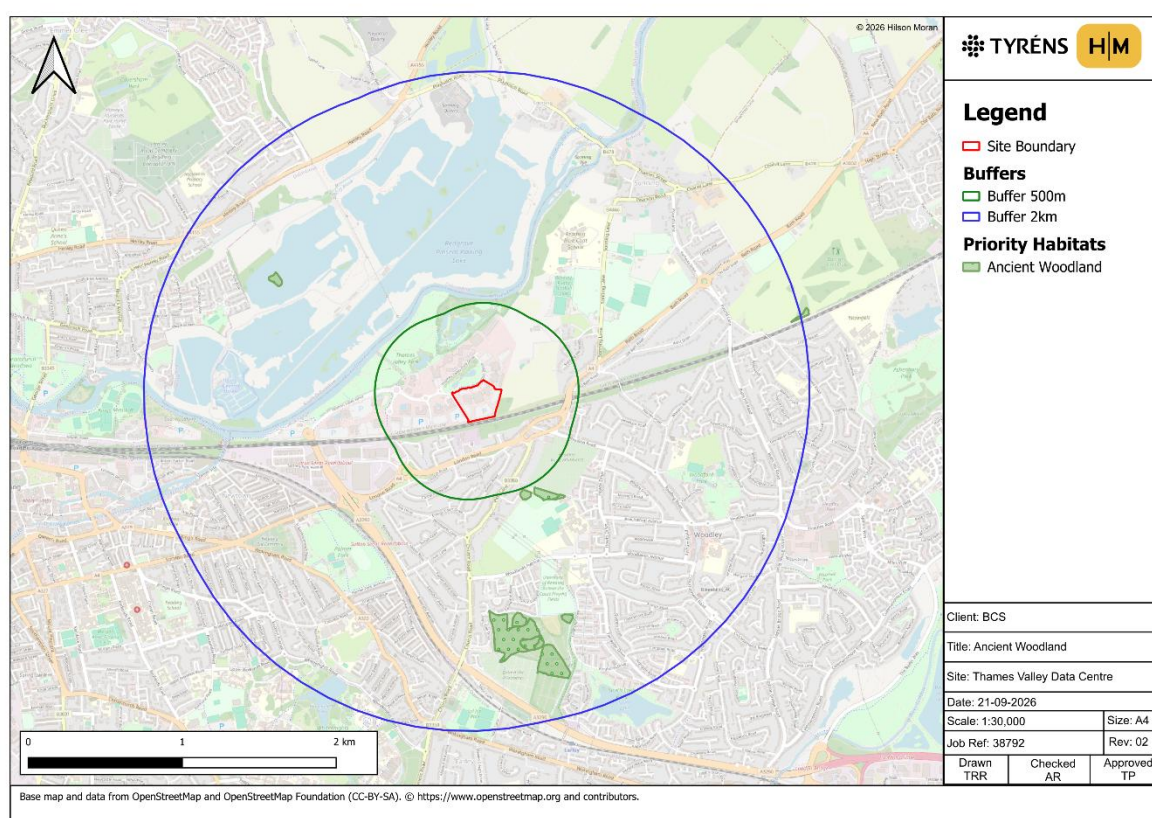


Figure 3-3 AW Sites within 2 km of the Site

3.3.4. Priority Habitats

3.3.4.1. Deciduous Woodland

There are 124 parcels of deciduous woodland within 2 km of the Site, with the nearest located within the Site boundary.

3.3.4.2. Traditional Orchard

There are eight parcels of traditional orchard within 2 km of the Site, with the nearest located approximately 1.4 km east of the Site.

3.3.4.3. No main habitat but additional habitat present

There are five parcels of priority habitat with no main habitat within 2 km of the Site, with the nearest located approximately 600 m northeast of the Site.

3.3.4.4. Lowland Fens

There are two parcels of lowland fens within 2 km of the Site, with the nearest located approximately 450 m north of the Site.

3.3.4.5. Lowland Heathland

There is one parcel of lowland heathland within 2 km of the Site, located approximately 1.3 km south of the Site.

3.3.4.6. Coastal Floodplain Grazing Marsh

There is one parcel of coastal floodplain grazing marsh within 2 km of the Site, located approximately 1.9 km north of the Site.

While a number of priority habitats occur within 2 km of the Site, these habitats are located outside the Site boundary and will not be directly affected by the Proposed Development. Although deciduous woodland is present within the Site boundary, this habitat is associated with the retained perimeter woodland. Subject to the implementation of appropriate protection measures during construction, significant adverse effects on priority habitats are not anticipated.

The locations of priority habitats are shown in Figure 3-4.

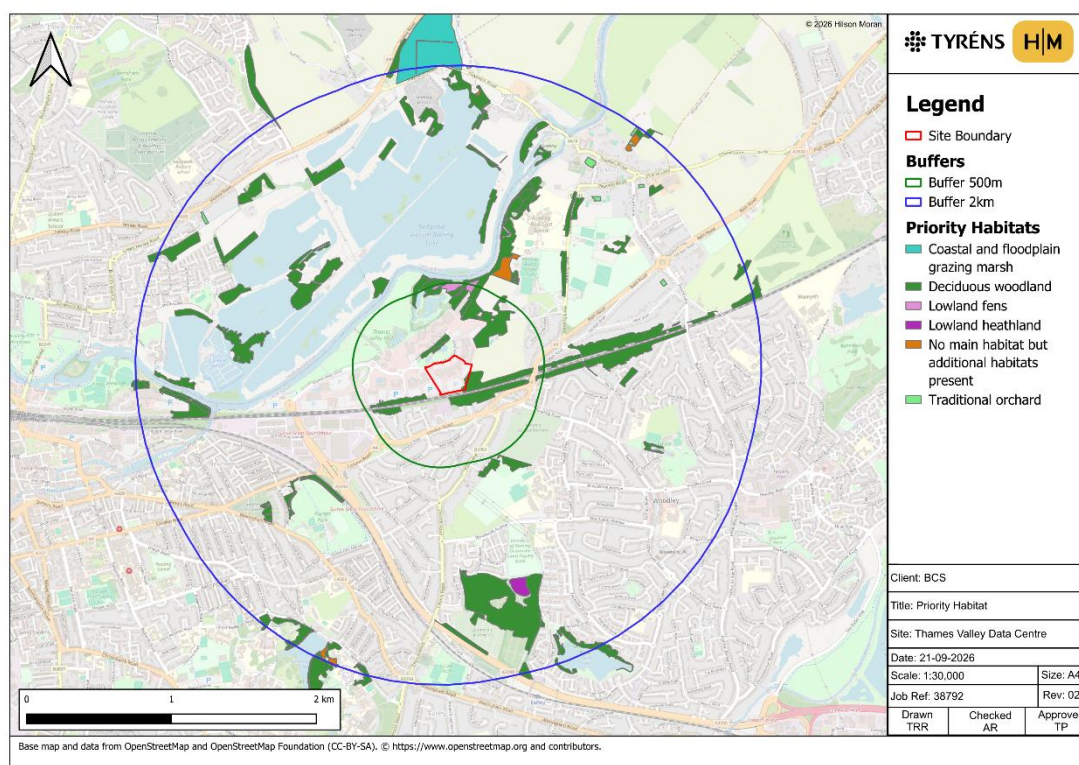


Figure 3-4 Priority Habitats Within 2 km of the Site

3.3.5. Waterbodies

There are seven waterbodies within 500 m of the Site. The nearest waterbody is located approximately 20 m north of the Site boundary. This has been determined from different online sources including MAGIC and Streetmap.

3.4. Species

3.4.1. Plants

3.4.1.1. Desk Study

The TVERC returned 62 records of 25 species of protected flowering plants within 2 km of the Site. The closest record was of *Althaea officinalis* (Marsh Mallow), found 318 m north of the Site.

The TVERC returned one record of protected ferns within 2 km of the Site. The closest record was of *Adiantum capillus-veneris* (Maidenhair Fern), found 1.7 km north of the Site.

3.4.1.2. Site Survey

A large proportion of the Site is covered by the buildings or by sealed developed land. Floral species mainly occupy landscaped areas such as the hedgerows, scrub,

and grassland between parking areas or patches around the perimeter of the Site. Areas close to the buildings frontage mainly consist of ornamental plant species with native species occupying the perimeter and making up the hedgerows and some of the scrub and grassland species. Around the perimeter of the Site is a woodland consisting mostly of native trees and vegetation such as *Quercus robur* (English Oak), *Betula pendula* (Silver Birch), *Corylus avellana* (Hazel), *Cornus sanguinea* (Dogwood), *Fraxinus excelsior* (Ash), *Ulex europaeus* (Common Gorse), *Vaccinium oxycoccos* (Cranberry), *Rosa arvensis* (Fieldbriar), and *Viburnum opulus* (Snowball Viburnum).

Since the Site is mainly developed land and areas of soil are already colonised by common or introduced species it is unlikely that the Site is of high value of plants. The most significant habitat on Site for plant species is the perimeter woodland.

The Site is assessed to have Low ecological value for plant species.

3.4.2. Invertebrates

3.4.2.1. Desk Study

Ants, Bees, Sawflies and Wasps

The TVERC returned 19 records of 13 species of protected ants, bees, sawflies and wasps. Species recorded include:

Nysson trimaculatus (no common name), *Auplopus carbonarius* (no common name), *Chrysis illigeri* (no common name), *Hedychrum niemelai subsp. Niemelai* (no common name), *Andrena Bucephala* (Big-headed Mining Bee), *Formica pratensis* (Black-backed Meadow Ant), *Andrena florea* (Bryony Mining Bee), *Andrena fulvago* (Hawksbeard Mining Bee), *Lasioglossum pauxillum* (Lobe-spurred Furrow Bee), *Andrena labiate* (Red-girdled Mining Bee), *Heriades truncorum* (Ridge-saddled Carpenter Bee), *Nysson dimidiatus* (Small Spurred Digger Wasp), and *Sphecodes crassus* (Swollen-thighed Blood Bee).

The closest record was that of a big-headed mining bee, located 780 m west of the Site.

Beetles

The TVERC returned 684 records of eight species of protected beetles. Species recorded include:

Anthribus fasciatus (no common name), *Hippodamia variegata* (Adonis' Ladybird), *Agelastica alni* (Alder Leaf Beetle), *Xyleborus dryographus* (Ambrosia Beetle), *Platyrhinus resinosus* (Cramp-Ball Fungus Weevil), *Noterus crassicornis* (Smaller Noterus), *Lucanus cervus* (Stag Beetle), and *Prionus coriarius* (Tanner Beetle).

The closest record was that of a stag beetle, located 156 m north of the Site.

Butterflies

The TVERC returned eight records of three species of protected butterflies. Species recorded include:

Coenonympha pamphilus (Small Heath), *Limenitis camilla* (White Admiral), and *Satyrrium w-album* (White-letter Hairstreak).

The closest record was that of a white-letter hairstreak, located 1.25 km northwest of the Site.

Dragonflies and Damselflies

The TVERC returned 92 records of two species of protected dragonflies and damselflies. Species recorded include:

Gomphus vulgatissimus (Common Club-tail), and *Sympetrum striolatum* (Common Darter).

The closest record was that of a common darter, located 270 m north of the Site.

Molluscs

The TVERC returned four records of three species of protected molluscs. Species recorded include:

Pseudanodonta complanata (Depressed River Mussel), *Stagnicola palustris/fuscus/corvus* (Marsh Pond Snail), and *Gyraulus acronicus* (Thames Ramshorn).

The closest record was that of a depressed river mussel, located 640 m east of the Site.

Moths

The TVERC returned 78 records of 35 species of protected moths. Species recorded include:

Ennomos quercinaria (August Thorn), *Xanthorhoe biriviata* (Balsam Carpet), *Agrochola lychnidis* (Beaded Chestnut), *Timandra comae* (Blood-vein), *Lycia hirtaria* (Brindled Beauty), *Anchoscelis litura* (Brown-spot Pinion), *Spilosoma lutea* (Buff Ermine), *Atethmia centrago* (Centre-barred Sallow), *Tyria jacobaeae* (Cinnabar), *Apamea remissa* (Dusky Brocade), *Ennomos fuscantaria* (Dusky Thorn), *Cirrhia gilvago* (Dusky-lemon Sallow), *Amphipoea oculatea* (Ear Moth), *Tholera decimalis* (Feathered Gothic), *Hepialus humuli* (Ghost Moth), *Allophyas oxyacanthae* (Green-brindled Crescent), *Euplagia quadripunctaria* (Jersey Tiger), *Acronicta rumicis* (Knot Grass), *Malacosoma neustria* (Lackey), *Apamea anceps* (Large Nutmeg), *Rhizedra lutosa* (Large Wainscot), *Caradrina morpheus* (Mottled Rustic), *Amphipyra tragopoginis* (Mouse Moth), *Watsonalla binaria* (Oak Hook-tip), *Orthosia gracilis* (Powdered Quaker), *Hydraecia micacea* (Rosy Rustic),

Hoplodrina blanda (Rustic), *Cirrhia icteritia* (Sallow), *Ennomos erosaria* (September Thorn), *Leucania comma* (Shoulder-striped Wainscot), *Hecatera dysodea* (Small Ranunculus), *Diarsia rubi* (Small Square-spot), *Asteroscopus sphinx* (Sprawler), *Chesias legatella* (Streak), and *Spilosoma lubricipeda* (White Ermine).

The closest record was that of a cinnabar, located 410 m north of the Site.

True Bugs

The TVERC returned two records of *Cosmotettix Caudatus* (no common name), a protected true bug.

The closest record was located 1.17 km north of the Site.

True Flies

The TVERC returned two records of two species of protected true flies. Species recorded include:

Tephritis praecox (No common name) and *Asilus crabroniformis* (Hornet Robberfly).

The closest record was that of a *Tephritis praecox* located 1.52 km northeast of the Site.

3.4.2.2. Site Survey

Most terrestrial invertebrates require vegetation, soil, deadwood, or leaf litter for nesting and shelter. The Site contains a low amount of these features, offering limited habitat opportunities. While the presence of floral species may provide limited nectar or pollen, the overall floral diversity and abundance are insufficient to support a diverse or significant invertebrate assemblage. The perimeter woodland may offer some suitable habitat for invertebrates since it may support niches such as deadwood, leaf litter, trees, and floral species which support invertebrates.

The Site is considered likely to be of low importance for invertebrates with the perimeter woodland having increased potential.

3.4.3. Amphibians

3.4.3.1. Desk Study

The TVERC returned 70 records of four species of protected amphibians (excluding great crested newts). Species records include:

Rana temporaria (Common Frog), *Bufo bufo* (Common Toad), and *Lissotriton vulgaris* (Smooth Newt).

The closest record was of a Smooth Newt located 40 m north of the Site.

The TVERC returned 28 records of *Triturus cristatus* (Great Crested Newt) within 2 km of the Site. The closest record was found 1.8 km northeast of the Site boundary.

3.4.3.2. Magic

A search of the MAGIC database identified one Great Crested Newt Class Survey Licence in the study area:

- Grid Reference SU756751, located approximately 1.3 km east of the Site boundary, surveyed in 2015 with great crested newt confirmed present.

3.4.3.3. Site Survey

No waterbodies such as ponds or ditches were recorded within the Site boundary. Within 500 m of the Site, six waterbodies were surveyed.

The Site itself does not have any waterbodies, but the surrounding waterbodies may offer suitable habitat for amphibians. The surrounding waterbodies vary in quality with some appearing to be managed for wildlife and other managed as aesthetic features with clear evidence of dye and artificial features like water fountains.

While there are some major barriers for amphibians between most ponds and the Site, some have only minor barriers between them such as Pond 1. There is suitable terrestrial habitat on Site such as scrub, grassland and woodland which may be suitable habitat for amphibians for foraging and hibernation use.

There are a series of ponds within 500 m of the Site which were not surveyed due to significant major barriers, such as major roads and other buildings, between them and the Site. These are labelled on Figure 3-5 as Ponds 8 to 10.

The pond in which the search of MAGIC database returned a Great Crested Newt Class Survey License is both beyond 500m and has several significant barriers such as major roads, other buildings, and open agricultural land between it and the Site. For these reasons this pond was not included in the Site survey.

The Site is considered likely to be of Moderate importance for amphibians.

The results of the HSI assessment are given in Table 3-3. Waterbody locations are shown in Figure 3-5.

Table 3-3 Habitat Suitability Index Assessment

Criteria	Description	Pond 1	Pond 2	Pond 3	Pond 4	Pond 5	Pond 6
SI 1	Location	1	1	1	1	1	1
SI 2	Pond Area	N/A*	1	0.9	1	0.8	0.95

Criteria	Description	Pond 1	Pond 2	Pond 3	Pond 4	Pond 5	Pond 6
SI 3	Pond Permanence	0.9	0.9	0.9	0.9	0.9	0.9
SI 4	Water Quality	1	1	0.33	0.33	0.33	0.01
SI 5	Shade	1	1	1	1	1	1
SI 6	Waterfowl Effect	1	1	1	1	1	1
SI 7	Fish Presence	1	1	1	1	1	1
SI 8	Pond Density	1	1	1	1	1	1
SI 9	Terrestrial Habitat	0.33	0.33	0.01	0.01	0.01	0.01
SI 10	Macrophyte Cover	0.4	0.3	0.3	0.3	0.3	0.3
TOTAL score		0.81	0.5	0.49	0.5	0.48	0.35
Assessment results		Excellent	Poor	Poor	Poor	Poor	poor

*Pond area too large to have scoring metric

The closest pond to the Site is approx. 25 m to the north of the site. It is characterised by clear water, adequate shade and macrophyte cover, an absence of waterfowl and fish, reasonable access to terrestrial habitat and only minor barrier between the pond and the Site. Since the HSI score predicts it is of excellent suitability for great crested newts, this water body is of moderate significance. All other ponds have a very poor HSI, mainly due to poor terrestrial habitat, water quality, and macrophyte cover, and therefore are of low significance.

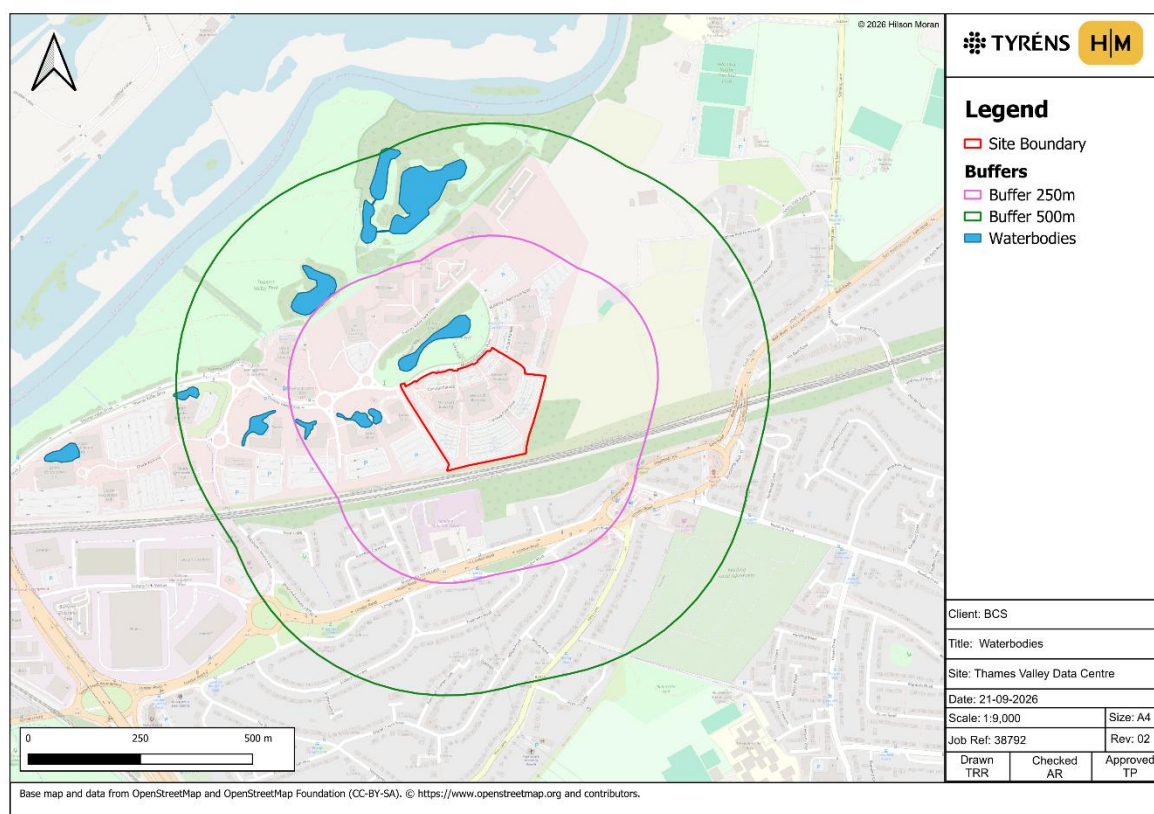


Figure 3-5 Waterbody Locations

3.4.4. Reptiles

3.4.4.1. Desk Study

The TVERC returned 95 records of three species of protected reptiles within 2 km of the Site. Species records include:

Zootoca vivipara (Common Lizard), *Natrix helvetica* (Grass Snake), and *Anguis fragilis* (Slow worm).

The closest record was that of a common lizard located 40 m north of the Site.

3.4.4.2. Site Survey

The Site offers some suitable basking, shelter and foraging habitat for reptiles such as grassland or scrub areas but not in sufficient size or number for this Site to be considered suitable for reptiles. Grassland areas are mown to a short sward whereas reptiles prefer overgrown grassland. Scrub areas are regularly maintained and often feature ornamental species making these areas unsuitable for reptiles. Where scrub areas are denser and feature mostly native species these have very poor connectivity to wider nature and can be discounted as suitable habitat. Furthermore, there is a lack of edge habitat and connectivity between the habitats on Site.

The Site is assessed to have negligible suitability for reptiles.

3.4.5. Birds – Breeding, Wintering and Migratory

3.4.5.1. Desk Study

The TVERC returned 4,597 records of 104 different protected bird species recorded within 2 km of the Site. Of those, 25 species are listed under Schedule 1 of the Wildlife and Countryside Act^{ix} and include:

Phoenicurus ochruros (Black Redstart), *Limosa limosa* (Black-tailed Godwit), *Fringilla montifringilla* (Brambling), *Cettia cetti* (Cetti's Warbler), *Melanitta nigra* (Common Scoter), *Loxia curvirostra* (Crossbill), *Turdus pilaris* (Fieldfare), *Regulus ignicapilla* (Firecrest), *Spatula querquedula* (Garganey), *Accipiter gentilis* (Goshawk), *Gavia immer* (Great Northern Diver), *Tringa ochropus* (Green Sandpiper), *Tringa nebularia* (Greenshank), *Falco subbuteo* (Hobby), *Upupa epops* (Hoopoe), *Alcedo atthis* (Kingfisher), *Charadrius dubius* (Little Ringed Plover), *Ichthyaeetus melanocephalus* (Mediterranean Gull), *Pandion haliaetus* (Osprey), *Falco peregrinus* (Peregrine), *Milvus milvus* (Red Kite), *Turdus iliacus* (Redwing), *Aythya marila* (Scaup), *Numenius phaeopus* (Whimbrel), and *Cygnus cygnus* (Whooper Swan).

Other species recorded include:

Sterna paradisaea (Arctic Tern), *Branta leucopsis* (Barnacle Goose), *Chroicocephalus ridibundus* (Black-headed Gull), *Pyrrhula pyrrhula* (Bullfinch), *Hydroprogne caspia* (Caspian Tern), *Bubulcus ibis* (Cattle Egret), *Larus canus* (Common Gull), *Acanthis flammea* (Common Redpoll), *Actitis hypoleucos* (Common Sandpiper), *Sterna hirundo* (Common Tern), *Emberiza calandra* (Corn Bunting), *Cuculus canorus* (Cuckoo), *Calidris alpina* (Dunlin), *Prunella modularis* (Dunnock), *Mareca strepera* (Gadwall), *Pluvialis apricaria* (Golden Plover), *Bucephala clangula* (Goldeneye), *Larus marinus* (Great Black-backed Gull), *Ardea alba* (Great White Egret), *Chloris chloris* (Greenfinch), *Motacilla cinerea* (Grey Wagtail), *Anser anser* (Greylag Goose), *Larus argentatus* (Herring Gull), *Delichon urbicum* (House Martin), *Passer domesticus* (House Sparrow), *Falco tinnunculus* (Kestrel), *Calidris canutus* (Knot), *Vanellus vanellus* (Lapwing), *Larus fuscus* (Lesser Black-backed Gull), *Acanthis cabaret* (Lesser Redpoll), *Dryobates minor* (Lesser Spotted Woodpecker), *Linaria cannabina* (Linnet), *Egretta garzetta* (Little Egret), *Anas platyrhynchos* (Mallard), *Poecile palustris* (Marsh Tit), *Anthus pratensis* (Meadow Pipit), *Turdus viscivorus* (Mistle Thrush), *Gallinula chloropus* (Moorhen), *Luscinia megarhynchos* (Nightingale), *Haematopus ostralegus* (Oystercatcher), *Ficedula hypoleuca* (Pied Flycatcher), *Anas acuta* (Pintail), *Aythya ferina* (Pochard), *Mergus serrator* (Red-breasted Merganser), *Podiceps grisegena* (Red-necked Grebe), *Tringa totanus* (Redshank), *Phoenicurus phoenicurus* (Redstart), *Emberiza schoeniclus* (Reed Bunting), *Charadrius hiaticula* (Ringed Plover), *Corvus frugilegus*

(Rook), *Tadorna ferruginea* (Ruddy Shelduck), *Thalasseus sandvicensis* (Sandwich Tern), *Acrocephalus schoenobaenus* (Sedge Warbler), *Gulosus aristotelis* (Shag), *Tadorna tadorna* (Shelduck), *Spatula clypeata* (Shoveler), *Alauda arvensis* (Skylark), *Mergellus albellus* (Smew), *Gallinago gallinago* (Snipe), *Turdus philomelos* (Song Thrush), *Accipiter nisus* (Sparrowhawk), *Muscicapa striata* (Spotted Flycatcher), *Sturnus vulgaris* (Starling), *Columba oenas* (Stock Dove), *Apus apus* (Swift), *Strix aluco* (Tawny Owl), *Anas crecca* (Teal), *Streptopelia turtur* (Turtle Dove), *Oenanthe oenanthe* (Wheatear), *Saxicola rubetra* (Whinchat), *Curruca communis* (Whitethroat), *Mareca penelope* (Wigeon), *Phylloscopus trochilus* (Willow Warbler), *Columba palumbus* (Woodpigeon), *Troglodytes troglodytes* (Wren), *Motacilla flava* (Yellow Wagtail), *Phylloscopus inornatus* (Yellow-browed Warbler), *Larus michahellis* (Yellow-legged Gull), and *Emberiza citrinella* (Yellowhammer).

The closest record was that of fieldfare located 157 m southeast of the Site.

3.4.5.2. Site Survey

The roofs of the buildings showed no sign of nesting or other use by birds other than perching since roof plant areas were effectively netted.

The wider Site has trees, shrubs and other vegetated areas which may be used by birds for nesting. Bird's nests were observed on trees to the front of building 1 as well as around the woodland to the perimeter of the Site. Species recorded using the Site were: *Milvus milvus* (Red Kite), *Parus major* (Great Tit), *Branta canadensis* (Canada Goose), *Garrulus glandarius* (Jay), *Corvus monedula* (Jackdaw), *Phasianus colchicus* (Pheasant), *Chloris chloris* (European Greenfinch), *Erithacus rubecula* (Robin), *Columba palumbus* (Wood Pigeon), *Prunella modularis* (Dunnock), *Fringilla coelebs* (Chaffinch), and *Turdus iliacus* (Redwing).

The most valuable bird habitat on the Site is the perimeter woodland. Evidence from the desk study and the Site visit indicates the presence of woodland specialist species, including great tit, jay, chaffinch, crossbill and firecrest.

The woodlands on Site are therefore considered to be of value to bird species and the presence of a nesting bird of any species could be a constraint to the development. The rest of the Site is likely to be of low value other than the individual trees which may offer suitable nesting opportunities.

3.4.6. Bats

3.4.6.1. Desk Study

The TVERC returned 1,221 records of bats within 2 km of the Site. Recorded bat species include:

Pipistrellus pygmaeus (Soprano Pipistrelle), *Eptesicus serotinus* (Serotine), *Pipistrellus sp.* (Pipistrelle species), *Nyctalus noctula* (Noctule bat), *Myotis nattereri* (Natterer's Bat), *Pipistrellus nathusii* (Nathusius's Pipistrelle), *Myotis sp.* (Myotis species), *Plecotus sp.* (Long-eared Bat species), *Nyctalus leisleri* (Leisler's Bat), *Myotis daubentonii* (Daubenton's Bat), *Pipistrellus pipistrellus* (Common Pipistrelle), *Plecotus auritus* (Brown Long-eared Bat), *Vespertilionidae sp.* (Unidentified Bats), *Chiroptera* (Unidentified Bats), *Barbastella barbastellus* (Barbastelle), and *Myotis alcathoe* (Alcathoe Bat).

The closest records were that of an unidentified *Chiroptera* found 150 m East of the Site boundary.

3.4.6.2. MAGIC

A search of the MAGIC database identified no inactive European Protected Species (EPS) development licences in the study area.

3.4.6.3. Site Survey

Buildings

The buildings on Site were externally and internally assessed for their potential to support roosting bats.

The buildings are multistorey office buildings which include a basement level car park and plant rooms, above ground office floors, and a roof top with plant. The façades include large rectangular, metal-framed windows, with external fixtures such as wall-mounted lighting, service conduits, and security equipment present. At ground level, the elevation features a recessed entrance area supported by columns, allowing access to the internal reception.

Building 1 is currently occupied and fully functioning as an office building, with the internal layout and fittings reflecting this use. During the Site walkover, the internal office areas were observed to be consistently noisy, brightly illuminated, and frequently used by staff, conditions that are generally unsuitable for roosting bats. The interior spaces comprise modern construction with smooth finishes, sealed surfaces, and minimal gaps, offering very limited internal structures, cavities, or crevices that could provide potential perching, sheltering, or roosting opportunities.

At roof level, the building contains plant rooms and associated servicing infrastructure. These areas were also found to be noisy due to mechanical plant operation, and lighting was controlled by presence-detection sensors, resulting in regular illumination when accessed. The combination of mechanical disturbance, variable lighting, and the predominantly hard, uninterrupted structural surfaces means these plant areas also provide negligible suitability for bats. No meaningful

voids, sheltered recesses, or features typically associated with roosting (such as exposed beams, lifted flashings, or boarded soffits) were noted.

The external roof surfaces themselves offered very limited features of interest, comprising mostly exposed fabric with no observable lifted tiles, cracks, or sheltered ledges. The roof is also highly exposed to weather conditions, including wind, rainfall, and temperature fluctuations. Such exposure makes these areas unsuitable for sustaining stable microclimates, which are critical for bat roosting, further reducing their potential ecological value.

The basement car park, while sheltered from the weather, was constructed in a manner that lacked structural complexity. The walls and ceilings were smooth and uninterrupted, and no crevices, expansion gaps, or service penetrations suitable for exploitation by bats were identified. Although quieter than the upper floors, the basement is regularly accessed by vehicles and pedestrians, resulting in intermittent disturbance that would further discourage bat use. Overall, the combination of low structural heterogeneity, regular human activity, and absence of roost-forming features indicates that the basement also offers very low suitability for bat roosting or perching.

Building 2 is in the process of being stripped out and, similar to building 1, has very limited internal structures suitable for bats.

Building 3 is currently unoccupied. The interior of the building is a large, open, concrete space with exposed structural columns. The floor is bare concrete with scattered debris, and the ceiling features exposed beams. While not all areas of building 3 were accessible during the Site walkover the suitability of access area can be assumed equal to buildings 1 and 2 due to their similar design.

For all three buildings, the external inspection revealed no obvious gaps, cracks, lifted materials, or cavities that could provide access or shelter for bats. The façades of all buildings were constructed from engineered panel systems, designed with tight tolerances and very shallow joints between panels. These joints are narrow, uniform, and lack depth, offering no meaningful enclosed voids or protected recesses that bats could exploit for roosting or perching. As engineered systems, the panels are fitted flush and are generally sealed to prevent moisture ingress, further reducing the availability of any microhabitats that might otherwise form in traditional masonry or timber-clad structures. Taken together, the façade construction, absence of suitable structural features, and lack of any internal or external field signs indicate that all three buildings offer negligible potential for bat roosting.

The buildings are considered likely to be of negligible potential for bats.

Trees

Several individual trees with potential to support individual roosting bats were identified on Site. Within the woodland around the perimeter, numerous trees exhibited features commonly associated with Potential Roost Features, including knots, cracks, fissures, flaking bark, extensive ivy cover, and areas of deadwood. These features can create stable, sheltered microclimates and enclosed cavities that may be suitable for a range of bat species using the Site opportunistically.

In addition to supporting potential roosting features, the woodland surrounding the Site forms part of a well-connected habitat corridor. Tree lines and woodland edges extend beyond the Site boundary and link directly into the nearby nature reserve and wider green infrastructure network. Such connectivity is highly valuable for bats, enabling them to commute along sheltered linear features while minimising exposure to predators and artificial lighting. This network also provides high-quality foraging opportunities, with the surrounding nature areas known to support diverse invertebrate assemblages. As a result, the surrounding woodland not only offers potential roosting structures but also serves as an important ecological corridor, enhancing the Site's connectivity to suitable and likely well-used foraging habitat in the wider landscape.

The trees are considered likely to be of Low potential for bats and could be used by individual bats opportunistically.

3.4.7. Hazel Dormouse

The TVERC returned no records of *Muscardinus avellanarius* (Hazel Dormouse) within 2 km of the Site.

While some suitable habitat for dormouse exists, the absence of local records and lack of large well-connected habitat observed during the Site walkover means that the Site is unsuitable for supporting dormouse populations. There are substantial hedgerows within the Site, but these remain poorly connected with the wider habitat and therefore are not considered suitable habitat for dormouse.

The Site is considered likely to be of negligible importance for dormice.

3.4.8. Water Vole

The TVERC returned three records of *Arvicola amphibius* (Water Vole) within 2 km of the Site. The closest record was found 420 m north of the Site boundary.

There is no suitable habitat for water voles on Site. The absence of water features, soft ground, and appropriate vegetation, combined with the urban context, make the Site unsuitable for supporting water vole populations.

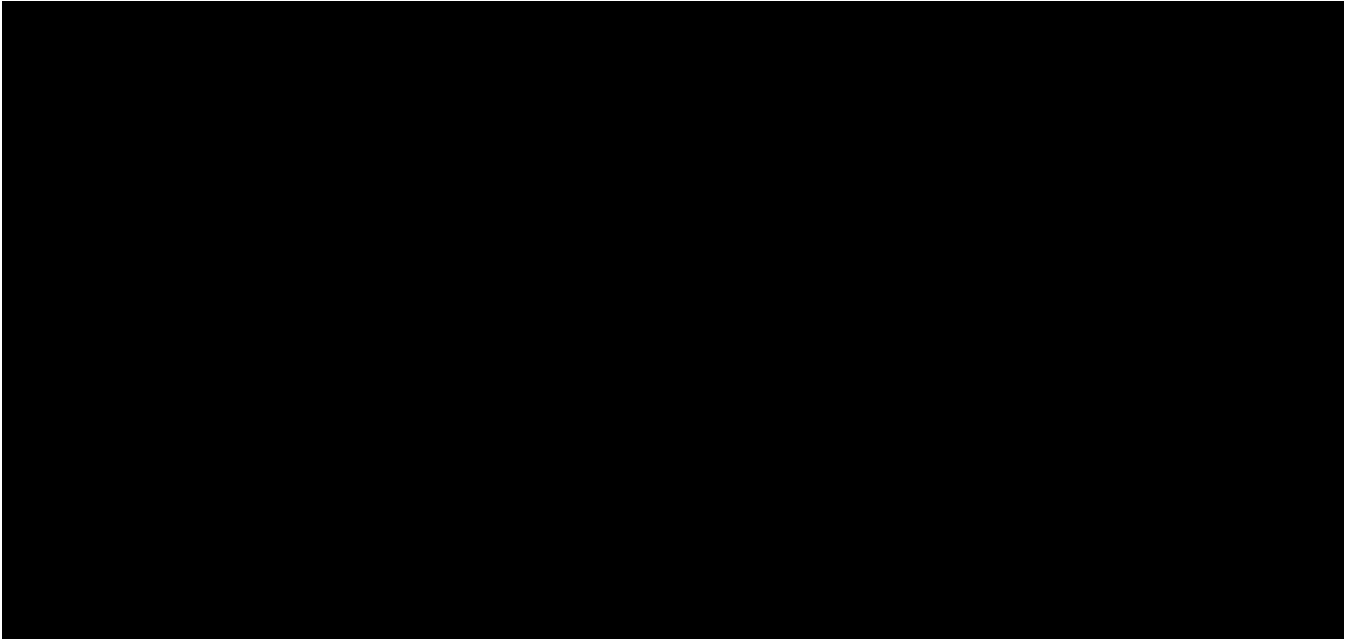
The Site is considered likely to be of negligible importance for water vole.

3.4.9. Otter

The TVERC returned 14 record of *Lutra lutra* (Otter) within 2 km of the Site. The closest record was found 470 m north of the Site boundary.

There is no suitable habitat for otters on Site. The absence of water features, natural banks, and prey availability, combined with the dense urban setting, make the Site unsuitable for otters.

The Site is considered likely to be of negligible importance for otter.



3.4.11. Other Mammals

The TVERC returned records of 49 hedgehogs within 2 km of the Site. The closest record was found 480 m south of the Site boundary.

It is understood that concerns have been raised regarding the presence of rabbits *Oryctolagus cuniculus* within Building 3. No evidence of rabbits was recorded within any of the buildings during the survey. As such, rabbits are not considered to represent a constraint to the Proposed Development. Nevertheless, should rabbits be encountered during construction, they would be managed through the standard ecological protection and reasonable avoidance measures outlined in this report.

3.4.12. Invasive non-native species

The TVERC returned 112 records of 18 invasive non-native species (INNS) within 2 km of the Site.

3.4.12.1. Invasive Animal Species

INNS recorded include: *Oxyura jamaicensis* (Ruddy Duck), *Crangonyx pseudogracilis/floridanus* (A Crustacean), *Dikerogammarus haemobaphes* (Demon Shrimp), *Pacifastacus leniusculus* (Signal Crayfish), *Dreissena polymorpha* (Zebra Mussel), *Hypania invalida* (A Segmented Worm), and *Neovison vison* (American Mink).

3.4.12.2. Invasive Plants

INNS recorded include: *Buddleja davidii* (Butterfly-bush), *Elodea canadensis* (Canadian Waterweed), *Hydrocotyle ranunculoides* (Floating Pennywort), *Impatiens glandulifera* (Himalayan Balsam), *Alnus cordata* (Italian Alder), *Reynoutria japonica* (Japanese Knotweed), *Crassula helmsii* (New Zealand Pigmyweed), *Elodea nuttallii* (Nuttall's Waterweed), *Impatiens capensis* (Orange Balsam), *Rhododendron ponticum* (Rhododendron), and *Fallopia baldschuanica* (Russian-vine).

During the Site walkover, butterfly bush was recorded across the Site.

3.5. Summary of Ecological Importance of Features

Table 3-4 contains a summary of the ecological importance of the beforementioned features within the Site and within the wider study area.

Table 3-4 Summary of Ecological Importance of Features

Feature	Ecological Importance	Comments
Buildings	Negligible	Unsuitable and unlikely to be used by nesting birds or bats
Developed Land; Sealed Surface	Negligible	Hardstanding such as parking and walkways with minimal ecological value.
Mixed Scrub	Moderate	May offer some suitable habitat but has very low connectivity.
Introduced Shrub	Low	Low ecological value.
Modified grassland	Low	Managed and of low diversity.
Hedgerow	Moderate	May offer some suitable habitat but has very low connectivity.
Individual trees	Moderate	May offer some suitable habitat for birds and bats.

Feature	Ecological Importance	Comments
Woodland	High	Likely to offer suitable habitat for birds and bats.
Plants	Low	The Site consists of a mix of introduced and native species. The perimeter woodland offers the most valuable habitat for plants.
Invertebrates	Low	Limited floral diversity. The perimeter woodland offers the most valuable habitat for invertebrates.
Amphibians (both breeding and terrestrial habitat)	Moderate	Pond with excellent habitat suitability index close to the Site. Terrestrial habitats on the Site may offer suitable foraging and/or hibernation habitat.
Reptiles	Negligible	Limited suitable basking, foraging, or sheltering habitat. The Site lacks connectivity and suitable edge habitat for reptiles.
Birds (breeding, wintering and migratory birds)	High	The surrounding woodland and individual trees on the site may offer suitable habitat for nesting birds and bird nests were observed during the site walkover.
Bats (potential roost Sites, foraging and commuting habitats/features)	High	The surrounding woodland and individual trees offer suitable habitat for bats for roosting as well as offering a valuable ecological corridor to wider nature areas.
Hazel Dormouse	Negligible	No suitable habitat or connectivity. No records or evidence.
Water Vole	Negligible	No water features or riparian habitat. No records or evidence.

Feature	Ecological Importance	Comments
Otter	Negligible	No aquatic habitat or connectivity. No records or evidence.
Invasive non-native species	Low	Many of the habitats on the Site have the presence butterfly bush.

4. Ecological Impacts

4.1. Potentially Damaging Activities

4.1.1. Construction

The main potential for impacts associated with the Proposed Development would occur during the construction phase, with the undertaking of construction activities. Efforts should be made to not disrupt the surrounding ecological features and connectivity.

4.1.2. Operation

Considering the urban nature of the Site and the high level of existing disturbance within the surrounding area, significant adverse effects on biodiversity during operation are considered unlikely. Furthermore, the proposed change in use to a data centre is likely to reduce Site footfall and operational traffic movements compared to the existing use, which may provide a minor benefit to local biodiversity.

It is recognised that concerns were raised regarding the generation of heat and noise from operational data centres. However, data centres are typically designed to maximise energy efficiency and minimise heat loss, as wasted heat represents a loss of usable energy. In some cases, waste heat can be captured and utilised within district heating networks to provide heat to surrounding communities^x.

In relation to noise, a separate operational noise assessment will be undertaken as part of the Environmental Statement for the Proposed Development, with input provided by the ecology team where required. In addition, data centres are subject to industry best practice and applicable noise assessment standards to ensure that operational noise is appropriately controlled^{xi}.

There are currently no recognised ecological thresholds against which operational heat emissions or noise levels can be quantitatively assessed for the habitats and species associated with the Site. As such, the assessment of potential ecological effects arising from operational heat and noise will be qualitative in nature and based on professional judgement, taking account of the characteristics of the Site and the surrounding environment. A noise assessment will be prepared as part of the Environmental Statement. Significant effects arising from operational heat emissions are considered unlikely, as any heat generated would be highly localised within an already heavily modified urban environment and is not anticipated to measurably alter the conditions of habitats supporting ecological receptors.

4.1.3. Protection of Biodiversity

The development baseline primarily comprises low-moderate value habitats, including introduced shrub, amenity grassland, hardstanding, and buildings. As such, the extent of biodiversity that could be directly affected within these areas is limited. However, the perimeter woodland supports higher ecological value and contains features that may be used by a range of species, including birds, bats, and terrestrial mammals. The presence of trees with suitable roosting features and the wider woodland connectivity indicates that the area may be utilised by commuting and foraging bats, meaning that future site alteration could potentially affect local bat activity or roosting opportunities.

A nearby waterbody, assessed as having an excellent suitability index for great crested newts, together with the presence of terrestrial habitat within parts of the Site, indicates that the area may also be used by amphibians, including great crested newts. Any changes to habitats within or adjacent to these areas therefore have the potential to impact amphibian populations should they occur within the wider landscape.

4.2. Biodiversity Net Gain

Biodiversity Net Gain (BNG) is a process whereby development leaves biodiversity in a measurably better state than before and is a policy requirement under the National Planning Policy Framework^{xii}. BNG became a legal requirement in England in February 2024 and was updated in December 2024 with further minor updates in February 2025, with the Environment Act^{xvii} setting out a mandatory 10% net gain in biodiversity for new development.

The key principle is the application of a mitigation hierarchy, which sets out that development should first avoid biodiverse habitats, then mitigate or minimise impacts upon habitats, then restore or reinstate habitats. As a last resort, once the mitigation hierarchy has been maximised on-site, the project may use biodiversity offsetting to compensate for any residual biodiversity impacts due to the project.

The principles require use of a Metric (e.g. Defra Statutory Biodiversity Metric), to assess and quantify net biodiversity change.

The Biodiversity Units (BU) score per area-based habitat was calculated via the metric using the quality factors (distinctiveness, condition, and strategic significance) and their assigned values. The sum of all the BU's provided the area-based habitat biodiversity baseline.

Note that the ecological survey covered a wider 5.9 ha area based on the Site boundary available at the time of survey, whereas the current application Site extends to approximately 5.4 ha. Therefore, the results given below do not align

with the results presented in the BNG Assessment Report^{xiii} which is based on the revised, smaller Site boundary.

The Site has been calculated to have a baseline biodiversity value of 22.65 BU and 2.69 HU. The total BU for area-based habitats are presented in Table 4-1 and the total HU for hedgerows are presented in Table 4-2.

Table 4-1 Biodiversity Net Gain Calculations

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	BU
Modified grassland	0.20	Low	Poor	Not in local strategy	0.39
Modified grassland	0.09	Low	Good	Not in local strategy	0.52
Bare ground	0.24	Low	Poor	Not in local strategy	0.48
Developed land; sealed surface	0.79	V.Low	N/A	Not in local strategy	0.00
Developed land; sealed surface	3.07	V.Low	N/A	Not in local strategy	0.00
Ruderal/Ephemeral	0.01	Low	Poor	Not in local strategy	0.01
Other woodland; mixed	0.44	Medium	Good	Not in local strategy	6.04
Other woodland; mixed	0.68	Medium	Good	Not in local strategy	9.03
Introduced shrub	0.38	Low	N/A	Not in local strategy	0.76
Mixed scrub	0.03	Medium	Moderate	Not in local strategy	0.21
Artificial unvegetated, unsealed surface	0.01	V.Low	N/A	Not in local strategy	0.00
Individual trees	0.004	Medium	Good	Not in local strategy	0.05

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	BU
Individual trees	0.63	Medium	Moderate	Not in local strategy	5.05
Individual trees	0.03	Medium	Poor	Not in local strategy	0.12
Total	5.92*				22.65

*Excluding individual trees

Table 4-2 Biodiversity Net Gain Calculations (Hedgerows)

Habitat Type	Length (km)	Distinctiveness	Condition	Strategic Significance	HU
Native hedgerow	0.547	Low	Moderate	Not in local strategy	2.19
Non-native and ornamental hedgerow	0.186	V.Low	Poor	Not in local strategy	0.19
Line of trees	0.08	Low	Moderate	Not in local strategy	0.32
Total	0.81				2.69

BNG calculations are provided in Appendix C.

5. Recommendations

The following recommendations for mitigation and further ecological surveys in relation to the Proposed Development have been made based on information gathered during the desk study and Site walkover.

5.1. Further Ecological Surveys

5.1.1. Great Crested Newt eDNA Surveys

eDNA surveys to detect the presence/absence of great crested newts should be carried out for ponds 1-6 which all have potential to support the species. Should the eDNA surveys return positive or inconclusive results, further surveys such as torchlight, bottle trapping or egg searches should be carried out.

5.1.2. Bat Surveys

A ground level tree assessment (GLTA) should be undertaken to assess the suitability of trees and woodland within the Site for supporting roosting bats. If features are identified that provide suitable roosting opportunities for bats, further surveys may be required in accordance with current best practice guidance. Subsequent to this recommendation, a GLTA has been undertaken and the findings will be reported separately.

In addition, a night-time bat walkover survey should be undertaken to further inform the assessment of bat activity across the Site and identify any notable bat commuting or foraging behaviour. Subsequent to this recommendation, a night-time bat walkover has been commissioned and the findings will be reported separately. The outcomes of these surveys will inform the need for any additional bat survey effort and mitigation.

5.2. Construction Environmental Management Plan

To protect nearby ecological receptors, designated sites and priority habitats from contaminated Site run-off and/or dust, a Construction Environmental Management Plan (CEMP) should be produced and include preventative measures. A suitable qualified Ecological Clerk of Works (ECoW) should provide input to this CEMP and ensure appropriate mitigation is in place. Furthermore, to prevent light spill, a lighting plan with mitigation measures for the construction and operational phases should be prepared.

The Contractor is expected to appoint a nominated individual (e.g., Environmental Officer) to conduct and log inspections and to take and record any mitigation actions necessary.

5.3. Reasonable Avoidance Method Statement

To protect nesting birds, bats, amphibians and terrestrial mammals throughout the construction phase, it is recommended that a detailed Reasonable Avoidance Method Statement (RAMS) is prepared as part of the CEMP. The RAMS should clearly outline the procedures, responsibilities and precautionary measures required to avoid disturbance, injury or mortality of protected and priority species during site clearance and vegetation removal.

If the removal of the woodland or scrub vegetation is proposed and given the potential presence of fauna using the area for nesting, sheltering or foraging, the appointment of an ECoW is advised. The ECoW should be present during all vegetation removal and any works with the potential to affect habitats used by these species. Their role should include:

- Inspecting the working area prior to vegetation clearance to confirm the absence of active bird nests and identify any refuges used by amphibians, reptiles or small mammals;
- Providing toolbox talks to contractors to ensure site personnel understand legal obligations and best-practice measures for working in areas where protected species may be present;
- Supervising the phased removal of vegetation and directing contractors to ensure clearance progresses in a controlled manner that allows animals the opportunity to disperse naturally; and
- Stopping works immediately if nesting birds, amphibians, reptiles or hedgehogs are encountered, and advising on appropriate next steps in accordance with wildlife legislation and agreed mitigation procedures.

The combined application of a robust RAMS, an effective CEMP and on-Site ecological supervision will significantly reduce the risk of harm to wildlife, ensure compliance with statutory requirements, and support the overall ecological integrity of the Site during the construction period.

5.4. Protection of Existing Ecological Features

Retained trees present on-Site or at the periphery of the Site would be fenced off with root protection zones, in accordance with BS 5837:2012 – ‘Trees in relation to design, demolition and construction. Recommendations’^{xiv}. This would ensure these are not damaged by machinery during the works.

5.5. Habitats

Enhancements to the local environment should be incorporated as part of the development to deliver a range of local benefits, including improved biodiversity and ecosystem services such as surface water management and access to nature.

The Proposed Development will include a landscape proposal which should be reviewed with an ecologist in order to ensure habitat enhancements are appropriate and valuable to the Site in its context.

To ensure protection of retained habitats and the long-term success of newly created habitats, a Landscape and Ecological Management Plan (LEMP) should be produced.

5.6. Species

5.6.1. Invertebrates

Invertebrate species receive legal protection under Schedule 5 of the Wildlife and Countryside Act 1981^{ix}. It is an offence to deliberately kill, injure, disturb, or trade protected invertebrates, or to damage their breeding or resting places.

To increase the potential of the landscaped enhancements to provide improved opportunities for invertebrates, it is recommended that a range of features are incorporated into the landscape plans, with piles and log piles to be provided in appropriate areas ideally placed in a sunny yet sheltered spot to encourage a range of invertebrate species to use the habitats present.

5.6.2. Birds

All wild birds are protected whilst nesting, with disturbance and destruction of active nests constituting an offence under the Wildlife and Countryside Act 1981 (as amended)^{ix}.

The removal of structures and habitats on Site has the potential for loss of suitable habitat for breeding birds. To avoid disturbance of nesting birds, any demolition should be undertaken outside of the breeding season between September and January. If this is not possible, prior to demolition, a nesting bird check must be undertaken by a suitably qualified ecologist. If evidence of nesting birds is identified, work should stop and a suitable no-work buffer zone around the nest area should be installed, until chicks have fledged.

Artificial nesting boxes can make an important contribution to providing alternative wildlife refuges by identifying appropriate nest boxes that target species of conservation concern, where possible and suitable. It is recommended that an annual monitoring check is undertaken to determine whether the boxes have been in use, and where they are unused measures to attract target species should be considered, if appropriate. The monitoring checks are likely to comprise visual assessments for field signs between April and August, although further detailed inspection between November and February may be necessary during routine maintenance.

5.7. Bats

All species of bat are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)^{ix} and Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019^{xviii} from deliberate or reckless killing or injury. Bats are also protected from disturbance whilst in a roost or significant disturbance to their ability to survive or reproduce. Bat roosts, defined as a 'place of rest or shelter', are also protected from destruction, modification, or obstruction.

Further bat surveys are recommended to be undertaken to establish the presence, and use of the Site by bats. The scope and timing of these surveys should follow current Bat Conservation Trust (BCT) guidelines, and any additional guidance or mitigation requirements will be provided once survey results are available.

If the proposed works have the potential to cause the disturbance, obstruction, or destruction of a bat roost, or otherwise impact bats in a way that is prohibited under relevant legislation, a European Protected Species (EPS) licence (or equivalent) would be required prior to works commencing. Appropriate mitigation, compensation, and monitoring measures would need to be developed and implemented as part of the licensing process to ensure that the conservation status of local bat populations is maintained.

Uncontrolled light spill during construction or operational development phases could impact individuals or populations of bats. A lighting strategy in accordance with the guidelines from Bat Conservation Trust (BCT) "*Bats and Artificial Lighting At Night*" guidance note^{xv} should be developed and implemented. Whilst this is focussed on bats, it will have benefits to all nocturnal species and could include the following:

- All luminaires should lack UV elements when manufactured. Metal halide or fluorescent sources should not be used;
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability;
- A warm white spectrum (ideally < 2,700 Kelvin) should be adopted to reduce blue light component;
- Luminaires should feature peak wavelengths higher than 550 nm to avoid the component of light most disturbing to bats;
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill;
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered. However, this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light

component and poor facial recognition, and their use should only be used as directed by a lighting professional;

- Column heights should be carefully considered to minimise light spill;
- Only luminaires with an upward light ration of 0 % and with good optical control should be used;
- Luminaires should always be mounted on the horizontal, i.e. no upward tilt;
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed; and/or,
- Ensure lights are switched off when they are not needed, where appropriate, either through the use of programmable fixtures or by PIR/motion sensor activation.

Inclusion of the above recommendations within the construction phase, in particular ensuring light is directed away from peripheral areas and are switched off overnight, will also ensure impacts in construction are minimised.

5.8. Invasive Species

Invasive plants are listed under schedule 9, Part 2 of the Wildlife and Countryside Act 1981 (as amended)^{ix} whereby it is an offence to plant or otherwise cause such species to grow in the wild. Under the Environmental Protection Act 1990^{ix}, any soil and waste containing propagules of a plant species listed in WCA Schedule 9, Part 2 which are to be disposed of are considered to have the potential to cause ecological harm and hence are classified as controlled waste.

The GB Invasive Non-native Species Strategy^{xvi} and EU Regulation 1143/2014 on Invasive Alien Species (entered into force on 1st January 2015) direct landowners and managers to adopt a proactive biosecurity driven approach to INNS management.

Whilst the butterfly bush stands recorded on Site do not have to be controlled under UK law, as they are not listed on Schedule 9 of the Wildlife and Countryside Act 1981, they are considered invasive as they spreads aggressively and can outcompete native plant species. Furthermore, they are identified by LISI as a Category 3 species. Therefore, it is recommended to ensure they do not spread, and proactive management is advised. This includes cutting them back before they seed, removing them from walls or infrastructure where they may cause structural harm, and ensuring they do not encroach onto adjacent land.

Occurrence of any other invasive plant species should be recorded during both the construction period and during routine maintenance following completion of the project, and a suitably qualified ecologist consulted for advice on its removal, if they are observed or are suspected to be present on-Site or within materials imported to or exported from the Site, this should be reported to the Site manager.

6. Conclusion

The desk study and Site walkover indicate that the Site is likely to be of Low Level importance for nature conservation.

The Site has been surveyed by a suitably qualified ecologist who has been involved with the scheme from an early stage in order to provide relevant advice and inform the development design, in order to reach optimal ecological outcomes given the nature and scale of the scheme. Consequently, the Proposed Development is deemed eligible for the credits available under LE 02, provided the credit criteria are met following assessment by the BREEAM Assessor.

As the Site currently supports 22.65 biodiversity units, the development will require measurable Biodiversity Net Gain, the extent of which will depend on the final landscape design and habitat proposals. To avoid, protect, reduce, limit, control or compensate for any impacts on ecological receptors, recommendations are outlined in this report. It is expected that, if all of the recommendations to protect the ecological value of the Site are implemented, the Proposed Development is deemed eligible for the credits available under LE 03, provided the credit criteria are met following assessment by the BREEAM Assessor.

A number of recommendations have been made that would enhance the ecology of the Site, including native planting, habitat creation, bird nesting provision, invertebrate features, lighting mitigation and the incorporation of green infrastructure. It is expected that, if all of the recommendations to enhance the ecological value of the Site are implemented, the Proposed Development will be eligible for the credits available under LE 04, provided the BREEAM Assessor is satisfied that all of the credit criteria are met.

A number of recommendations have been made that would manage and maintain ecology throughout the project. It is expected that, if all of the recommendations to protect and maintain the ecological value of the Site are implemented, including the preparation of an LEMP to ensure long-term habitat success, the Proposed Development will be eligible for the credits available under LE 05, provided the BREEAM Assessor is satisfied that all of the credit criteria are met.

The desk study and Site walkover indicate that the Site is likely to be of Low Level importance for nature conservation. By following the recommendations outlined in this report, the Proposed Development is likely to conform with relevant planning policy and legislation, and deemed eligible for the BREEAM credits available under LE 02, LE 03, LE 04, and LE 05.

Table 6-1 summarises the recommendations this report identified for the Proposed Development.

Table 6-1 Summary of Recommendations

Receptor	Recommendation
Habitats	Incorporate habitat enhancements into the landscape proposals. Prepare a LEMP to ensure long-term success of newly created habitats. Root protection zones for nearby trees.
Invasive Species	The removal of <i>Buddleja davidii</i> (Butterfly bush) from the Site should be considered within the proposed works. Proactive management is advised if any stands of invasive species are identified.
Invertebrates	Include features such as log piles to encourage invertebrate use.
Amphibians	The Site offers suitable terrestrial habitat for amphibians and the presence of a waterbody with excellent habitat suitability for great crested newts means that further surveys are needed to determine the risk to amphibians.
Reptiles	No suitable habitat present. No further surveys or mitigation required.
Birds	Demolition should occur outside the breeding season (September–January). If not possible, a nesting bird check must be undertaken. Install artificial nesting boxes and monitor annually.
Bats	Further ground level tree surveys are needed to determine the presence of bats on the Site. Develop and implement a lighting strategy to minimise light spill during construction and operation.
Hazel Dormice	No suitable habitat or records. No further surveys or mitigation required.
Water Voles	No suitable habitat or records. No further surveys or mitigation required.
Otters	No suitable habitat or records. No further surveys or mitigation required.

Appendix A – Legislative and Planning Context

A.1 Legislative Framework

A.1.1 Environment Act 2021

The Environment Act 2021^{xvii} makes provision for targets, plans and policies for improving the natural environment. Part 6 of the Act deals with nature and biodiversity, principally setting out the requirement for biodiversity net gain in planning but also including requirements relating to local nature recovery strategies and conservation.

Section 98 of the Act makes provision for biodiversity gain to be a condition of planning permission, with Schedule 14 identifying the objective being at least 10 % when comparing the post-development Site to the pre-development Site. Schedule 14 also identifies the methodology by which this is established and the process by which offsite biodiversity gains can be delivered.

The Act incorporates a transition period for biodiversity net gain of 2 years between its Royal Assent and enforcement of the requirement, bringing the mandatory net gain requirement in place in late 2023.

A.1.2 Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended)^{xviii}, which consolidate the Conservation of Habitats and Species Regulations 2010 and subsequent amending instruments, is the main legislation governing the protection of biodiversity and is derived from European Council Directive 92/43/EEC (otherwise known as the Habitats Directive). These Regulations provide protection for Sites, habitats and species that are of conservation importance at the European or international level. The Regulations provide the framework for the designation and protection of 'European Sites', including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). The Regulations also provide legislative protection to species, identified as 'European Protected Species' (EPS) within Schedule 2 of the Regulations.

The Conservation of Habitats and Species Regulations 2017 are amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which ensures the continuity of the legislation following the departure of the UK from the European Union.

A.1.3 Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended)^{ix} comprises the principal means of protecting wildlife in the UK, including the identification and protection of Sites of Special Scientific Interest (SSSIs), and provides the mechanism by which a number of international directives are implemented in the UK.

A.1.4 Countryside and Rights of Way (CRoW) Act 2000

The Countryside and Rights of Way (CRoW) Act 2000^{xi} primarily extends to England and Wales. It provides a new statutory right of access to the countryside and modernises the rights of way system, bringing into force stronger protection for both wildlife and countryside.

The Act is divided into five distinct sections, Part III is of relevance to ecology:

Part III - Nature Conservation and Wildlife Protection: The Act details a number of measures to promote and enhance wildlife conservation. These measures include improving protection for Sites of Special Scientific Interest (SSSIs) and increasing penalties for deliberate damage to SSSIs. Furthermore, the Act affords statutory protection to Ramsar Sites which are wetlands designated under the International Convention on Wetlands^{xx}.

A.1.5 Natural Environment and Rural Communities (NERC) Act 2000

The Natural Environment and Rural Communities (NERC) Act 2006^{xxi} places an obligation on public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity.

A.2 Statutory Protected Sites and Species

A.2.1 Sites

Statutory protection for Sites of ecological importance or value has derived from various international conventions, European Directives and national legislation. The designations for protected Sites in the UK include:

- Special Area of Conservation (SAC) – designated under the European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, targeting particulate habitats (listed on Annex I) and/or species (listed on Annex II) identified as being of European Importance;
- Special Protection Area (SPA) – designated under the European Council Directive on the Conservation of Wild Birds for the protection of wild birds and their habitats (including particularly rare and vulnerable species listed in Annex I of the Directive, and migratory species);
- Ramsar – listed under the Convention on Wetlands of International Importance for the protection of internationally important wetland habitat, especially as waterfowl habitat. Although not directly legislated, through the NPPF the government expects them to be given the same level of protection as SACs and SPAs;
- Site of Special Scientific Interest (SSSI) – notified under the Wildlife and Countryside Act 1981 (as amended) or the National Parks and Access to the Countryside Act

1914, as being of special nature conservation interest for its plant or animal communities, habitats, geological or landform features;

- National Nature Reserve (NNR) – designated under the Wildlife and Countryside Act 1981 (as amended) as a nationally important nature reserve on account of its habitat, flora or fauna interest;
- Local Nature Reserve (LNR) – established by Local Authorities under s21 of the National Parks and Access to the Countryside Act 1914 as a locally important nature reserve on account of its habitat, flora or fauna interest.

A.2.2 Species

The following summarises the legislative protection afforded to species identified as potentially present within the field survey area.

Flora

All wild plants are protected under Schedule 13 of the Wildlife and Countryside Act 1981 (as amended)^{ix}, which makes it an offence to uproot a plant, defined as to ‘*dig up or otherwise remove the plant from the land on which it is growing*’, without permission from the land owner or occupier. A number of higher and lower plants receive additional protection under Schedule 8 of the Act, which makes it an offence to intentionally pick, uproot, destroy or trade in these plants.

Schedule 9 of the Act identifies invasive plant species and makes it an offence to plant these species or otherwise cause them to grow in the wild. The protection has been strengthened through the inclusion of a new schedule, as a result of Section 23 of the Infrastructure Act 2015, which enables environmental authorities to require works to be undertaken to remove or prevent their establishment. Any material containing Japanese knotweed (*Fallopia japonica*) or giant hogweed (*Heracleum mantegazzianum*) is identified as ‘controlled waste’ under the Environmental Protection Act 1990 and must be disposed of appropriately.

Birds

All wild birds in England and Wales are protected under Part 1 of the Wildlife and Countryside Act 1981 (as amended)^{ix}, which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs. Additional protection is afforded to species listed in Schedule 1 of the Act from disturbance whilst it is building a nest, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Furthermore, provisions under Section 10, Part 1, of the Conservation of Habitats and Species Regulations 2017^{xviii} require local planning authorities to have regard to ‘*the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat*

for wild birds in the UK in the exercising of their functions. As a result, it is important to consider any habitat loss as a result of development and opportunities for the provision of habitats.

European Protected Species

All European Protected Species (EPS) in England and Wales are fully protected through inclusion within the Conservation of Habitats and Species Regulations 2017 (as amended)^{xviii}. Under this legislation it is an offence to deliberately capture, injure or kill individuals of any native EPS. It is also a strict liability offence to damage or destroy Sites or places which EPS use as a breeding Site or resting place. EPS are also protected under the Regulations from deliberate disturbance which is likely to:

- a) impair its ability:
 - i. to survive, breed or reproduce, or to rear or nurture their young; or,
 - ii. in the case of animals of a hibernating or migratory species to hibernate or migrate; or,
- b) to affect significantly the local distribution or abundance of the species to which they belong.

It may be possible to apply for a licence from Natural England to allow activities that would otherwise be an offence under these Regulations. However, it is an offence to breach a condition imposed by any such licence.

All EPS are also partially protected in England and Wales through their inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)^{ix}. Under this legislation, it is an offence to intentionally or recklessly disturb a bat whilst it is using a place of rest or shelter.

EPS potentially present within the masterplan Site and immediately surrounding areas include all species of bats.

A.3 Planning Policy

A.3.1 National Planning Policy

National planning policy guidance in relation to ecology and nature conservation is provided through the National Planning Policy Framework (NPPF)^{xxii}, with planning practice guidance provided by the Ministry of Housing, Communities and Local Government. Chapter 19: Conserving and Enhancing the Natural Environment states that the objective of national policy is “to influence the design and location of new development to help drive nature's recovery and contribute to wider environmental outcomes, safeguarding our most important habitats, species and landscapes and recognising the centrality of natural capital to delivering sustainable growth.”

Policy N1: Identifying Environmental Opportunities and Safeguards requires development plans to safeguard and enhance the natural environment and reflect the wider benefits of natural capital and ecosystem services. This includes:

- setting out the hierarchy of international, national and locally designated sites and areas of importance for landscape, geodiversity or biodiversity value;
- identifying opportunities for the conservation, enhancement and recovery of landscapes, waterbodies, habitats and priority or threatened species, including through habitat restoration, nature-based solutions and strengthening ecological networks;
- steering development towards land of least environmental value where consistent with other Framework policies, whilst avoiding and minimising harm to important designated sites; and
- establishing standards for green infrastructure provision.

Policy N2: Improving the Natural Environment states that development proposals should contribute positively to the natural environment and support nature recovery by:

- considering the environmental qualities of land and identifying opportunities for enhancement, including through biodiversity net gain;
- taking account of agricultural land quality and using poorer quality land where significant development of agricultural land is necessary;
- strengthening ecological networks beyond the site boundary;
- conserving and enhancing existing natural features such as trees and hedgerows;
- incorporating green infrastructure and nature-based solutions to deliver multiple environmental benefits; and
- minimising adverse impacts on biodiversity and incorporating features that support priority and threatened species.

Policy N2 further states that “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 the development should be refused.”

Policy N6: Areas of Particular Importance for Biodiversity and Geodiversity provides protection for internationally, nationally and locally designated sites. It states that development affecting a Site of Special Scientific Interest (SSSI) should be refused unless either:

- there would not be a significant adverse effect on the integrity of the site; or

- the benefits of the development in the proposed location clearly outweigh the likely impact on the features that make the site valuable for nature conservation.

Policy N6 also states that development proposals 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 is in place.

A.3.2 Local Planning Policy – Wokingham Borough Council

Local planning policy for Wokingham is derived from a suite of adopted and emerging planning documents, including the Wokingham Borough Adopted Core Strategy (2010)^{xxiii}, the Managing Development Delivery (MDD) Local Plan, and the Wokingham Local Plan Update 2023–2040 (2025 draft). Together these documents establish the framework for managing development and delivering the Council’s strategic objectives for a well-designed, sustainable, and biodiverse borough. They sit alongside the Wokingham Borough Biodiversity Action Plan (2012–2024), which guides habitat protection and enhancement across the district.

The Local Plan and associated documents contain a number of policies relevant to ecological assessment. Key policies are summarised below.

NE1 Biodiversity and Geodiversity (Local Plan Update 2023–2040)

- a. Development must protect and, where possible, enhance biodiversity and geodiversity across the Borough. Planning proposals should identify, conserve and strengthen ecological networks and avoid hard to designated and non-designated habitats.
- b. Proposals are expected to minimise ecological impacts, deliver appropriate mitigation, and demonstrate meaningful opportunities for habitat enhancement in line with local and national biodiversity objectives.
- c. Development adjacent to sensitive sites, such as watercourses, wetlands or conservation areas, must ensure that adverse effects on ecological integrity are avoided or adequately mitigated.

CP7 Biodiversity (Adopted Core Strategy)

- a. All developments must take account of biodiversity and contribute to the enhancement of the Borough’s ecological resource where possible. Proposals must respond to the aims and targets of the Wokingham Biodiversity Action Plan, particularly in relation to priority habitats and species.

- b. Development should support the protection, management and enhancement of habitats, including woodlands, grasslands, hedgerows, wetlands and heathlands, as identified within the Habitat Action Plans of the BAP.

CP8 Thames Basin Heaths Special Protection Area (SPA) (Adopted Core Strategy)

- a. Development that may affect the Thames Basin Heaths SPA must provide appropriate avoidance and mitigation measures to ensure no likely significant effect. The Core Strategy embeds the requirement to safeguard the SPA through strategic mitigation and Suitable Alternative Natural Greenspace (SANG) provision.

A.4 Biodiversity Action Plans

A.4.1 UK Biodiversity Action Plan

The UK BAP^{xxiv} has been replaced by the Post-2010 Biodiversity Framework^{xxv}, which addresses the changes in the strategic thinking of the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011-2020. The new Framework includes new priorities for UK-level work for the Convention on Biological Diversity and provides a broad structure to enable action across the UK. Whilst the UK BAP has been replaced, the UK BAP priority habitats and species continue to be regarded as conservation priorities in the UK Post-2010 Biodiversity Framework.

The UK BAP identifies 65 habitats and 1,150 species that are considered to be of conservation concern.

Although a number of the species present within the study area are included in the UK BAP, only common pipistrelle and song thrush have been included in a Species Action Plan.

Common Pipistrelle

Although it remains the most abundant and widespread bat species in the UK, the pipistrelle is thought to have undergone a significant decline in numbers. Estimates from the National Bat Colony Survey suggest a population decline of approximately 70% between 1978 and 1993. Factors identified as causing loss or decline of the species population include:

- A reduction in insect prey abundance, due to high intensity farming practice and inappropriate riparian management;
- Loss of insect-rich feeding habitats and flyways, due to loss of wetlands, hedgerows and other suitable prey habitats;
- Loss of winter roosting Sites in buildings and old trees;
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

The Species Action Plan identifies the objectives and targets as the maintenance of existing populations and range of pipistrelle, and restoration of populations to pre-1970 numbers.

Song Thrush

Although a common and widespread species, song thrush are declining throughout the UK as a result of changes in food supply and availability of nest Sites as a result of changes in farming practice, predation by corvids and foxes and competition with blackbirds. The aims of the Species Action Plan are to halt the decline in numbers by 2000, maintain the range and population levels of the species and, where possible, restore them to that of the 1970 estimate, and identify and implement priority research in order to formulate future conservation action.

A.4.2 Wokingham Borough Biodiversity Action Plan (2012–2024)

The Wokingham borough BAP provides a strategic ecological framework comprising Habitat Action Plans for Woodlands, Grassland and Hedgerows, Wetlands, Heathland, and Urban/Town landscapes. It sets targets for habitat protection, enhancement and creation, including the objective for 60% of Local Wildlife Sites to be in appropriate management by 2024. Finally it reinforces statutory duties under the Natural Environment and Rural Communities Act (NERC) 2006, requiring all public bodies to conserve biodiversity.

Appendix B – Site Photographs

Photo 1



Mixed scrub area to front of building 3

Photo 2



Mixed scrub area to front of building 3

Photo 3



Introduced shrub to building front

Photo 4



Introduced shrub to building front

Photo 5



Introduced shrub to building front

Photo 6



Introduced shrub to rear of buildings

Photo 7



Introduced shrub to rear of buildings

Photo 8



Sample photo of tree to front of buildings

Photo 9



Sample of trees to front of buildings

Photo 10



Young trees to side of building 1

Photo 11



Sample of trees to ends of hedgerows to rear of buildings

Photo 12



Sample of trees to ends of hedgerows to rear of buildings

Photo 13



Tree to the rear of building 3

Photo 14



Tree to the rear of building 3

Photo 15



Silver birch trees to side of building 3

Photo 16



Native hedgerow to front of buildings

Photo 17



Native hedgerow to front of buildings

Photo 18



Native hedgerows to rear parking of the Site

Photo 19



Ornamental non-native hedgerow to rear of building 3

Photo 20



Portion of perimeter woodland behind temporary fence

Photo 21



Individual trees to rear of site and perimeter woodland in background

Photo 22



Building 1 atrium

Photo 23



Sample photo of building 1 office areas

Photo 24



Building 1 basement car park

Photo 25



Building exterior

Photo 26



Sample of external plant areas

Photo 27



Building 2 office floors in process of strip out

Photo 28



Building 3 office floors (unoccupied)

Photo 29



Building 1 rooftop areas

Photo 30



Building 1 rooftop areas

Photo 31



Building 1 rooftop areas

Photo 32



Building 1 rooftop areas

Photo 33



Pond 1 (nearest to site with excellent HIS score)

Photo 34



Pond 1 (nearest to site with excellent HIS score)

Photo 35



Pond 1 (nearest to site with excellent HIS score)

Photo 36



Pond 2 (Poor HIS score)

Photo 36



Pond 3 (Poor HIS score)

Photo 37



Pond 4 (Poor HIS score)

Appendix C – Biodiversity Net Gain Calculations

Project Name: Thames Valley Data Centre

Map Reference:

A-1 On-Site Habitat Baseline

Area habitat summary	
Total Net Unit Change	-22.66
Total Net % Change	-100.00%
Trading Rules Satisfied	No - check trading summaries ▲

Condense / Show Columns

Condense / Show Rows

Main Menu

Existing area habitats					Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier		Total habitat units
1	Grassland	Modified grassland	No	0.196	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.39
2	Grassland	Modified grassland	No	0.067	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.52
3	Urban	Bare ground	No	0.238	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.48
4	Urban	Developed land; sealed surface	No	0.786	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
5	Urban	Developed land; sealed surface	No	3.07	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
6	Sparsely vegetated land	Ruderal/Ephemeral	No	0.005	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.01
7	Woodland and forest	Other woodland; mixed	No	0.584	Medium	4	Good	3	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same broad habitat or a higher distinctiveness habitat required (≥)	9.03
8	Urban	Introduced shrub	No	0.38	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.76
9	Heathland and shrub	Mixed scrub	No	0.026	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	0.21
10	Urban	Artificial unvegetated, unsealed surface	No	0.009	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
11	Woodland and forest	Other woodland; mixed	No	0.438	Medium	4	Good	3	Formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required (≥)	6.04
12	Individual trees	Urban tree	No	0.004	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	0.05
13	Individual trees	Urban tree	No	0.531	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	5.05
14	Individual trees	Urban tree	No	0.029	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	0.12
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Project Name: Thames Valley Data Centre Map Reference:

B-1 On-Site Hedge Baseline

Condense / Show Columns

Condense / Show Rows

Main Menu

Hedgerow summary	
Total Net Unit Change	-2.69
Total Net % Change	-100.00%
Trading Rules Satisfied	No - check trading summary ▲

Existing hedgerow habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline
Ref	Hedge number	Habitat type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier		Total hedgerow units
1	20	Native hedgerow	0.547	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	2.19
2	23	Non-native and ornamental hedgerow	0.186	V.Low	1	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.19
3	1	Line of trees	0.08	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.32
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