



Tim Pearce

**Land at Oxford Road, Tilehurst,
RG31 6TH**

Preliminary Ecological Appraisal

January 2026

Leigh-Ann Barran Ecology

Notes

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Field investigations and site assessments, where required, were conducted with the level of detail necessary to meet the objectives of the work. However, due to the temporal nature of ecological data, the findings of this report should not be relied upon after a significant period, as defined by the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines.

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Executive Summary

1. This report presents the findings and recommendations of a Preliminary Ecological Appraisal (PEA) undertaken of the application boundary at Land at Oxford Road, Tilehurst, RG31 6TH (the Site). The survey was carried out to inform a planning application for the proposed erection of a detached dwelling with associated access and parking.
2. The Site (c.0.114ha) comprised lowland mixed deciduous woodland and a non-native ornamental hedgerow. Habitats present were considered to be of up to moderate ecological value. The Site was situated within an urban context, with immediate surroundings that include roads, pavements, residential dwellings and gardens, amenity grassland, a railway line with a station, and the River Thames.
3. A review of statutory designated sites identified one European designated site within 13 km, and six nationally designated sites within 5 km. Given the nature, scale, and distance of the proposed development, direct and indirect impacts on designated sites are considered highly unlikely, and effects are anticipated to be neutral.
4. The Site provides suitable habitat for a range of protected and notable species, including Badger, bats, breeding birds, Hazel Dormouse, invertebrates, reptiles, and other notable species. The majority of key habitat features, including woodland and hedgerows, will be retained, and where minor losses occur, appropriate mitigation and ecological enhancement measures have been identified.
5. Recommended measures include:
 - Retention, buffering, and enhancement of habitats.
 - Production of a Construction Environmental Management Plan (CEMP: Biodiversity) to ensure effective habitat protection during construction.
 - Implementation of precautionary working methods and sensitive construction practices to protect retained habitats and species.
 - Sensitive lighting strategy to reduce disturbance to nocturnal species, particularly bats, badgers, and invertebrates.
 - Targeted surveys where required, including: Badger walkover if >12 months old; pre-felling aerial inspections; nesting bird checks or timing vegetation clearance outside the breeding season; precautionary clearance under PWMS for dormice; and directional vegetation clearance under ECoW supervision for reptiles.
 - Optional biodiversity enhancements, including replacement native trees, hedgerow planting, bird and bat boxes, log piles, hibernacula, and hedgehog highways.
6. Overall, with implementation of the recommended mitigation, compensation, and enhancement measures, the residual ecological effects of the development are expected to be neutral to positive. The proposals align with the mitigation hierarchy—avoid, mitigate, compensate, and enhance—while adhering to local and national ecological guidance and planning policy.

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1.0 Introduction

Purpose of this Report

- 1.1** Leigh-Ann Barran Ecology was commissioned by Tim Pearce to undertake a Preliminary Ecological Appraisal (PEA) of Land at Oxford Road, Tilehurst, RG31 6TH (application boundary given in Appendix 1, hence referred to as 'the Site'). The Site is located at Ordnance Survey Grid Reference SU 67442 75174 and is approximately 0.114 ha in extent.
- 1.2** The survey was carried out to inform a planning application for the proposed erection of a detached dwelling with associated access and parking.

Context

- 1.3** The Site comprised lowland mixed deciduous woodland and a hedgerow. It was bounded to the north and east by the Tilehurst Ambulance cover point, to the south by Oxford Road, and to the west by additional lowland mixed deciduous woodland. The Site was situated within an urban context, with immediate surroundings that include roads, pavements and footpaths, residential dwellings and gardens, amenity grassland, a railway line with a small station on its northern side, and the River Thames, located approximately 77 m from the Site boundary beyond the railway line.
- 1.4** The Site formed part of a broader urban–semi-natural mosaic. South of the River Thames, the landscape comprised small woodland patches, hedgerows, parkland, and linear green corridors interspersed with residential and transport infrastructure. North of the River Thames, the area was predominantly arable and grazing land, interspersed with additional woodland parcels.

Objectives

- 1.5** This report outlines the methods and results of the ecological survey conducted to assess the existing ecological value of the Site and evaluate potential ecological constraints and opportunities related to the proposed development. The appraisal aims to map primary ecological features, compile a plant species list for each habitat type, and make an initial assessment of the presence or likely absence of species of conservation concern. It aims to evaluate the relative importance of the habitats at local, regional, and national levels. Any legal and planning policy constraints relevant to nature conservation will be identified, along with potential ecological issues. Based on these findings, recommendations for avoidance, mitigation, and enhancement measures will be provided to safeguard significant ecological interests, minimize impacts, and deliver net biodiversity gains in accordance with Chapter 15 of the National Planning Policy Framework (NPPF)¹, and relevant local policies. Where applicable, further surveys and mitigation needs will also be identified.
- 1.6** Details of relevant wildlife legislation and planning policies are included in Appendix 2.

¹Ministry of Housing, Communities and Local Government (MHCLG), 2023. *National Planning Policy Framework*. Chapter 15: Conserving and enhancing the natural environment. London: MHCLG. Available at: <https://www.gov.uk/guidance/national-planning-policy-framework>

2.0 Methodology

- 2.1** The following PEA follows guidance and methods as prescribed by the Chartered Institute for Ecology and Environmental Management (CIEEM) Guidelines for Ecological Appraisal², Preliminary Ecological Appraisal³, and Ecological Impact Assessment⁴. Following these methodologies, a baseline of rare and notable ecological receptors (species and habitats) was established and appropriately valued. Significant predicted impacts upon these receptors have been identified, along with associated constraints and opportunities. This stepwise assessment process has informed likely mitigation and enhancement measures. Where necessary, Phase 2 ecological surveys have been recommended, along with a proposed implementation schedule. These surveys will comprehensively address the predicted impacts of the scheme in accordance with the NPPF⁵, local planning policy and relevant wildlife legislation.
- 2.2** CIEEM guidelines for Ecological Impact Assessment have been utilised to assess the impacts upon habitats within the zone of influence (ZoI) of the Site. CIEEM suggests that it is best to use the geographical scale (i.e. international, national, regional etc.) at which a feature (i.e. a habitat, species or other ecological resource) may or may not be important as the appropriate measure of value. As such, data from the data search and survey have been reviewed, and the likely occurrence of protected and notable species/species groups assessed. This has allowed predictions of impacts to be made along with recommendations for mitigation, compensation and enhancement.
- 2.3** All ecological features are assigned to a value relating to their geographic frame of reference, using the following scale:
- International;
 - National (England);
 - Regional (South-East)
 - County (Berkshire);
 - District (West Berkshire District);
 - Local or Parish/Borough (Tilehurst Parish); and
 - Site (Site and surrounding area).
- 2.4** This report focuses on protected and notable species relevant to the Site and project, to ensure the content remains clear, concise, and directly applicable to the works. The assessment also identifies opportunities for ecological enhancement, with the aim of achieving a net positive biodiversity outcome. This will be based on enhancing existing ecological resources and creating new habitats to mitigate any losses incurred by the development.

Desk Study

- 2.5** Records of protected and notable species from the past 20 years within 2 km of the Site boundary were obtained on 08 December 2025 from the National Biodiversity Network (NBN) Atlas (www.nbnatlas.org), which includes data from the People's Trust for Endangered Species (PTES).

² Chartered Institute for Ecology and Environmental Management (CIEEM), 2017. *Guidelines for Ecological Appraisal*. 2nd ed. Winchester: CIEEM. Available at: <https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf>

³ Chartered Institute of Ecology and Environmental Management (CIEEM), 2018. *Guidelines for Preliminary Ecological Appraisal*. Available at: <https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf>

⁴ Chartered Institute for Ecology and Environmental Management (CIEEM), 2019. *Guidelines for Ecological Impact Assessment in the UK and Ireland*. [online] Available at: <https://cieem.net/wp-content/uploads/2019/02/Combined-EcIA-guidelines-2018-compressed.pdf>

⁵ MHCLG, 2023. *National Planning Policy Framework*.

Raw data is available upon request. Species included in the search parameters are:

- European protected species (EPS) (listed on Schedules 2 and 5 of The Conservation of Habitats and Species (Amendment) Regulations 2012);
- Nationally protected species under Schedules 1, 5 and 8 of The Wildlife & Countryside Act 1981 and The Protection of Badgers Act 1992;
- Species listed as Critically Endangered, Endangered or Vulnerable on the IUCN 2001 Red List;
- All species listed on the RSPB Birds of Conservation Concern 4 as Red or Amber;
- Nationally Rare or Nationally Scarce species;
- Notable invertebrates; and
- Species of Principal Importance under The Natural Environment and Rural Communities (NERC) Act⁶ or are Priority Species under the Local Biodiversity Action Plan.

- 2.6 Given that records of Hazel Dormouse (*Muscardinus avellanarius*) are known to be under-represented, the data search for this species covered an area of up to 10 km from the Site boundary.
- 2.7 A web-based search for statutory designated sites via the Multi Agency Geographic Information for the Countryside (MAGIC) spatial data resource (www.magic.gov.uk) was undertaken in December 2025 for the following designations: European (up to 10 km); national (5 km) and local (2 km).
- 2.8 Maps of the Site and the surrounding area were examined using the MAGIC online spatial data resource and aerial photographs from Google Earth⁷. This examination aimed to identify potential notable habitats on and adjacent to the Site and within the broader landscape. The assessment included water bodies within 250 m of the Site boundary, watercourses, and other landscape features that may hold ecological significance for protected species, particularly Great Crested Newt (*Triturus cristatus*), as well as mobile species such as bats and birds.

Habitat Survey

- 2.9 A UK Habitat Classification (UKHab)⁸ survey was conducted on 1 November 2025 under appropriate weather conditions by Consultant Ecologist Leigh-Ann Barran BSc (Hons). Leigh-Ann has over 5 years of experience in ecological consultancy and is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM). This standard survey method is used to gather baseline ecological data for land areas, including potential development sites, and is intended for use by ecologists to identify and map habitats to provide outputs that are suitable for ecological impact assessment. UKHab provides a comprehensive framework for identifying and mapping habitats across the UK, supporting outputs suitable for ecological impact assessments. Habitat mapping was conducted using UKHab classifications, incorporating primary habitat types and secondary codes where applicable. Key ecological features of interest were identified through the use of target notes.
- 2.10 Vascular plant nomenclature in this report follows Stace⁹. Plant names in text are given with English name first, followed by the scientific name in brackets.

⁶ UK Parliament. (2006). *Natural Environment and Rural Communities Act 2006*. [online] Available at: www.legislation.gov.uk

⁷ Google (2024) *Google Earth imagery of Asheridge, UK*, [online]. Available at: <https://earth.google.com>

⁸ UKHab Ltd (2023). *UK Habitat Classification Version 2.0*. July 2023. [Online]. Available at: <https://ukhab.org/>

⁹ Stace, C.A. (2010) *New Flora of the British Isles*. 3rd edn. Cambridge: Cambridge University Press.

Habitat Assessment for Protected and Notable Species

- 2.11** The surveyed area was evaluated during the survey to assess its suitability for supporting protected and notable species potentially present within the area.

Badger

- 2.12** An initial assessment was conducted to identify potential Badger (*Meles meles*) activity within 30 meters of areas potentially impacted by works, where access was feasible. This assessment followed standard guidelines for classifying badger setts¹⁰ and categorizing entrance holes¹¹. The survey involved a systematic search for signs of Badger presence, including setts, foraging signs, mammal paths (runs), footprints, hairs, and latrines. The assessment aimed to identify habitats with potential utility for Badger, such as earth banks, woodland, hedgerows, and rough grassland, relevant for foraging, commuting, and sett creation.

Bats

Roosting

- 2.13** The Site was evaluated for its potential to support roosting bats. All existing habitats were assessed for their suitability based on guidelines from the Bat Conservation Trust¹², with guidance detailed in Table 1. Trees, buildings, and structures were initially assessed from ground level, with the use of binoculars, when necessary, to identify potential roosting features, bat access points, and any evidence of bat activity. This evidence included the presence of droppings, urine staining, and mammalian fur oil markings, which are indicative of bat occupation.

Table 1: Categorisation of Roosting Habitats in Structures, and Foraging and Commuting Habitats.

Potential Suitability	Description	
	Roosting Habitats in Structures	Potential Flightpaths and Foraging Habitats
None	No habitat features on-site likely to be used by any roosting bats at any time of the year (i.e., a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on-site likely to be used by any commuting or foraging bats at any time of the year (i.e., no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on-site 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.	No obvious habitat features on-site likely to be used as flight-paths or foraging habitats by bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that may be used by individual bats occasionally throughout the year. However, these sites lack the space, shelter, protection, and suitable surrounding habitat for regular use or support by larger numbers of bats, making them unsuitable for maternity or classic hibernation but usable by individual hibernating bats.	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e., not very well connected to the surrounding landscape or other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.

¹⁰ Harris, S., Morris, P., Wray, S. and Yalden, D. (1995) *A review of British mammals: population estimates and conservation status of British mammals other than cetaceans*. Peterborough: Joint Nature Conservation Committee.

¹¹ Natural England, 2009. *Interpretation of criteria used in defining the term 'current use' in relation to badger setts*. Natural England Technical Information Note TIN104.

¹² Collins, J. (. (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn). Bat Conservation Trust, London.

Potential Suitability	Description	
	Roosting Habitats in Structures	Potential Flightpaths and Foraging Habitats
Moderate	A structure with one or more potential roost sites that could be used by bats due to its size, shelter, protection, and surrounding habitat, but is unlikely to support a high-conservation roost type (e.g., maternity or hibernation roost). This categorization is independent of species conservation status, which is confirmed after presence is established.	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.
High	A structure with one or more suitable roosting sites for larger bat populations, used more frequently and for extended periods, due to its size, shelter, protection, and surrounding habitat. These sites can support high conservation value roosts, such as maternity or hibernation sites.	High-quality habitat, well connected to the wider landscape, is likely to be regularly used by bats for flight paths along river valleys, streams, hedgerows, tree lines, and woodland edges. Such habitats, including broadleaved woodland, tree-lined watercourses, and grazed parkland, are also ideal for foraging. The site is near and connected to known bat roosts.

Foraging/Commuting

- 2.14** The Site was assigned a level of suitability for foraging/commuting bats according to the guidance outlined in Table 1. Good foraging habitats include sheltered areas rich in insects, such as woodland, scrub, ponds, lakes, and species-rich or rough grassland. High-value features for commuting consist of well-connected linear elements such as hedgerows, woodland edges, and watercourses.

Birds

Breeding

- 2.15** The Site was evaluated for its capacity to support breeding birds, with suitable habitats typically including scrub, trees, hedgerows, buildings, open grassland, and debris piles. The assessment of breeding birds focuses on habitat suitability and includes incidental sightings of birds and old nests.

Wintering

- 2.16** The Site was assessed for its potential to accommodate significant wintering and migratory bird populations. Suitable features for wintering/migratory bird species include large bodies of water, extensive open fields, minimal cover for predators, and proximity to bird-designated sites.

Great Crested Newt

- 2.17** A comprehensive assessment of terrestrial and aquatic habitats was conducted to evaluate their suitability for supporting Great Crested Newt (GCN). Terrestrial habitats such as rough grassland and woodland, which provide essential foraging and hibernation areas for GCN, were considered suitable if they had good connectivity to breeding ponds and sufficient cover from predators during the terrestrial phase. The suitability of aquatic habitats, including any within 250 m of the Site, was also evaluated to determine their potential for supporting breeding GCN and other amphibians.
- 2.18** Where present, aquatic habitats were assessed for their suitability to support breeding GCN (as well as other amphibians) using the Habitat Suitability Index (HSI). The HSI, developed by Oldham et

al.¹³ and adapted from a system by the US Fish and Wildlife Service, assigns a numerical value between 0 and 1, with 0 indicating unsuitable habitat and 1 representing optimal habitat. This method considers ten factors, including geographic location, surface area, hydrology, water quality, shading, presence of waterfowl and fish, nearby water features, terrestrial habitat, and macrophyte cover. Each factor is scored based on both field and desk-based surveys, and the final HSI score is calculated using a specific formula.

- 2.19 HSI scores are used to categorize ponds as having poor (<0.5), below average (0.5-0.59), average (0.6-0.69), good (0.7-0.79), or excellent (>0.8) suitability for GCN. Higher HSI scores generally correlate with a greater likelihood of GCN presence and larger populations, although the relationship is not exact, and some ponds with lower scores may still support newt populations.

Hazel Dormouse

- 2.20 Habitats on-site were evaluated for their suitability for Hazel Dormouse, a species that typically inhabits areas with dense woody vegetation. The assessment considered factors such as the presence of a complex three-dimensional habitat structure composed of diverse woody species, availability of multiple food sources, suitable plants for nest-building materials, and connectivity to areas of appropriate habitat¹⁴.

Invertebrates

- 2.21 The Site was assessed for its potential to support protected and notable invertebrates. Suitable habitats include a variety of terrestrial and aquatic environments such as rivers, lakes, ponds, canals, estuaries, coasts, wetlands, marshes, woodlands, small streams, and ditches. Additionally, potential microhabitats such as leaf litter, decaying wood, and reedbeds were evaluated for their suitability for supporting diverse invertebrate species. This assessment was based on the habitats present and their structural complexity and diversity, with particular attention given to rare and notable species documented in the local area.

Reptiles

- 2.22 The Site was assessed for its suitability to support Common Lizard (*Zootoca vivipara*), Slow-worm (*Anguis fragilis*), Grass Snake (*Natrix helvetica*), and Adder (*Vipera berus*), Sand Lizard (*Lacerta agilis*), and Smooth Snake (*Coronella austriaca*). The assessment focused on identifying features that provide key reptile habitats, including basking areas (e.g., south-facing slopes, open ground), hibernation sites (e.g., banks, wall cavities, piles of rotting vegetation, and log stacks), and foraging opportunities (e.g., rough grassland, scrub, woodland edges, and heathland). Specific habitat preferences differ between species: Common Lizard occupy a range of habitats from rough grassland to woodland glades, walls, and pastures; Slow-worm share similar habitats and are often found in rank grassland, gardens, and derelict land; Grass Snake utilize similar habitats but rely on ponds and wetlands where they prey primarily on amphibians, such as Common Frog (*Rana temporaria*); Adder typically inhabit rough, open countryside and woodland edges, often favouring dry heath environments; Sand Lizard require open, sandy heath or grassland with sparse vegetation for basking and egg-laying; and Smooth Snake occupy mature heathland and woodland with dense ground cover for shelter and hunting small reptiles.

¹³ Oldham, R.S., Keeble, J., Swan, M.J.S. & Jeffcote, M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal*, 10(4), 143-155.

¹⁴ Bright, P.W., Morris, P.A., and Mitchell-Jones, A.J. (2006) *The Dormouse Conservation Handbook*. 2nd ed. English Nature, Peterborough.

Riparian Species

- 2.23** An initial assessment was conducted to identify suitable habitat for riparian species, including Otter (*Lutra lutra*), Water Vole (*Arvicola amphibius*), and White-clawed Crayfish (*Austropotamobius pallipes*). Specific habitat preferences differ between species. Suitable habitats for Otter include rivers, lakes, ponds, canals, estuaries, coasts, wetlands, marshes, woodlands, small streams, and ditches. Additionally, potential holt sites were considered, such as riverbanks, tree roots, shrubby thickets, and rocky crevices. Water Vole generally occupy rivers, streams, ditches, wetlands, reedbeds, wet moorland, marshes, around ponds and lakes, with particular focus on well-vegetated riverbanks that provide opportunities for burrowing and foraging. Suitable habitat for White-clawed Crayfish generally includes clean, well-oxygenated freshwater environments such as rivers, streams, and lakes, with ample shelter provided by submerged rocks, tree roots, and aquatic vegetation.

Other Notable Species

- 2.24** The Site was assessed for its likelihood of supporting Species of Principal Importance (SoPI), as listed on Local and National Biodiversity Action Plans (BAPs), particularly for species for which there are records in the immediate vicinity. Species include European Hedgehog (*Erinaceus europaeus*), Brown Hare (*Lepus europaeus*), Common Toad (*Bufo bufo*), Harvest Mouse (*Micromys minutus*), and European Polecat (*Mustela putorius*).

Limitations

- 2.25** Although UKHab surveys can be undertaken throughout the year, the optimal period for botanical identification is between April and October, when deciduous and annual plant species are most readily identifiable and phenologically active. The survey was not undertaken during this optimal period. However, given the widespread and common nature of the habitats recorded, this is not considered to have significantly affected the survey results or conclusions. Assessments were precautionary and may be conservative. Any limitations arising from survey timing are highlighted where relevant within the report.
- 2.26** Where data provided by the client or external sources have been used, it has been assumed to be accurate. Leigh-Ann Barran Ecology cannot accept responsibility for any inaccuracies in third-party data. The conclusions and recommendations presented in this report are based on the assumption that all relevant information requested from these sources has been supplied accurately and comprehensively.
- 2.27** Desktop data searches are a valuable resource for assessing a site's potential to support rare and protected species. However, they are not definitive in determining the presence or absence of such species, due to the inherent limitations in how records are gathered and the spatial and temporal gaps in the data.

3.0 Results

Designated Sites

Statutory Designated Sites

European Designated Sites

3.1 One European designated site was identified within 13 km of the Site boundary: Hartslock Wood Special Area of Conservation (SAC), c. 6.04km northwest of the Site. Covering approximately 34.16 ha, Hartslock Wood SAC is designated for its semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*), which include important orchid-rich areas. The site supports one of only three UK populations of monkey orchid (*Orchis simia*), a nationally rare Red Data Book species. The SAC is also designated for its Yew (*Taxus baccata*) woods of the British Isles. These woodlands exhibit a diverse age structure within the yew population and support a rich flora, including locally notable species such as southern wood-rush (*Luzula forsteri*), wood barley (*Hordelymus europaeus*), and narrow-lipped helleborine (*Epipactis leptochila*).

3.2 European designated sites are considered to be of **International** importance.

Nationally Designated Sites

3.3 Given the small scale and non-intensive nature of the proposed development, a 5 km zone of influence (Zol) is considered precautionary and appropriate.

3.4 Six nationally designated sites were identified within a 5 km radius of the Site boundary. These are listed in Table 2 in order of proximity to the Site, along with brief descriptions. All six designations are considered to be of **National** importance.

Table 2: Statutory Designated Sites within 5 km of the Site.

Key: SSSI = Site of Special Scientific Interest; LNR = Local Nature Reserve; NNR = National Nature Reserve

Site Name	Approximate Distance and Direction	Reason for Designation
Sulham and Tidmarsh Woods and Meadows SSSI	1.03 km NW	Habitats: Mosaic of semi-natural habitats, including wet valley alderwoods, coppiced woodland, seasonally flooded meadows, acid and neutral grasslands, and marshy areas, with a rich assemblage of characteristic flora, including orchids, sedges, rushes, and dwarf shrubs, maintained through traditional management and creating a rare and diverse ecosystem in southern England. Species: Supports over 300 species of moth, notable butterflies such as White Admiral (<i>Ladoga camilla</i>), Purple Hairstreak (<i>Quercusia quercus</i>), and White-letter Hairstreak (<i>Strymonidium w-album</i>), as well as a variety of other invertebrates, molluscs, and rare fly species, providing important habitat for nationally and locally notable species.
Pincen's Kiln SSSI	1.30 km NE	Habitats: Disused quarry
Blundells Copse LNR	1.43 km W	Habitats: Ancient woodland with stream Species: Bats, European Hedgehog.
Lousehill Copse LNR	2.89 km N	Habitats: Semi-ancient woodland, open meadow
Round Copse LNR	3.23 km NE	Habitats: Woodland Species: Birds, including Nuthatch (<i>Sitta europaea</i>), Treecreeper (<i>Certhia familiaris</i>), thrushes, Blackbird (<i>Turdus merula</i>), and all three species of woodpecker: Great Spotted (<i>Dendrocopos major</i>), Lesser Spotted (<i>Dryobates minor</i>), and Green Woodpecker (<i>Picus viridis</i>).

Site Name	Approximate Distance and Direction	Reason for Designation
Mcilroy Park LNR	3.48 km SW	Habitats: Semi-ancient woodland, grassland, sunken ancient track, chalk pits

- 3.5 The Site intersects the SSSI Impact Risk Zone for Sulham and Tidmarsh Woods and Meadows SSSI. The IRZ relates to infrastructure developments, air pollution associated with livestock and poultry, and industrial combustion processes.

Non-Statutory Designated Sites

- 3.6 There were four non-statutory designated sites within 2 km of the site. These are listed in Table 3 in order of proximity to the Site. Non-statutory designated sites are considered important at a **County** Level.

Table 3: Non-statutory Designated Sites within 5 km of the Site.

Key: LWS = Local Wildlife Site

Site Name	Approximate Distance and Direction
SU67S01 Mcilroy Park, Tilehurst	0.50 km S
SU67R04 Blundells Copse + The Moor	1.53 km S
SU67W02 Lousehill Copse	1.50 km SW
SU67X02 The Warren Woodlands complex	1.62 km NE

Habitat Survey

- 3.7 The habitats within the Site were:

- Lowland mixed deciduous woodland
- Non-native and ornamental hedgerow

- 3.8 A map of the habitats on-site is provided within Appendix 3. Site photographs are illustrated in Appendix 4.

Lowland mixed deciduous woodland

- 3.9 Woodland with a mixed canopy comprising both planted and naturalised tree species, including Oak (*Quercus robur*), Ash (*Fraxinus excelsior*), Sycamore (*Acer pseudoplatanus*), Norway Maple (*Acer platanoides*), Horse Chestnut (*Aesculus hippocastanum*), and English Elm (*Ulmus minor*). The woodland exhibited limited vertical and structural diversity, with a closed canopy and a poorly developed understorey. The ground layer was heavily shaded and largely dominated by Ivy (*Hedera helix*), with little evidence of shrub or herbaceous layers.
- 3.10 The woodland formed an isolated block of habitat, surrounded by hard landscaping roads and car parking areas. It was connected to an additional woodland parcel along its western boundary, which itself was bordered by roads on three sides. This isolation limited habitat connectivity and reduced overall ecological value.

Non-native and ornamental hedgerow

- 3.11 A managed hedgerow comprising >20% canopy cover of the non-native Common Snowberry (*Symphoricarpos albus*). Other species present included Sycamore, Bramble (*Rubus fruticosus*)

agg.), Hazel (*Corylus avellana*), Elder (*Sambucus nigra*), and Cherry Laurel (*Prunus laurocerasus*).

Priority Habitats

- 3.12** The dominant habitat within the Site, lowland mixed deciduous woodland, is listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as a Habitat of Principal Importance. It is therefore also recognised as a Priority Habitat in the Berkshire Biodiversity Strategy and the Reading Biodiversity Action Plan.
- 3.13** No Priority Habitats were present immediately adjacent to the Site boundary. Within 1 km of the Site, there was one parcel of wood-pasture and parkland, 27 parcels of deciduous woodland, and one parcel of ancient woodland (Kentwood Grove). The closest Priority Habitat was a parcel of deciduous woodland located approximately 44 m northeast of the Site, on the opposite side of the railway line.

Summary

- 3.14** The woodland and hedgerow on site were considered to be of moderate ecological value, and were common and widespread within the local landscape. Habitats on site were considered to have potential to support protected species, including those of conservation concern. Habitats present are considered to be of **Site** importance, Confidence in this assessment is **high**.

Protected and Notable Species

Badger

- 3.15** The data search returned right records of Badger within 2 km of the Site. The closest and most recent record (2023) was 0.8 km southwest of the Site.
- 3.16** No badger setts were found within the site or within 30 m of the Site. Mammal foraging signs (sniffle holes, paths) were observed.
- 3.17** The habitats on-site such as woodland and hedgerows were considered to provide suitable foraging and commuting opportunities for individuals that may be present in the wider landscape. Additionally, these habitats offered some suitable sett-building habitat although this was limited by the generally flat topography.
- 3.18** Further areas of woodland are present adjoining the western boundary of the Site. The Site is not directly connected to other areas of suitable habitat in the wider landscape, however they are present close by, e.g. a tree belt to the north forms a linear green corridor along the railway. In addition, the Thames Path on the far side of the railway provides a further vegetated corridor between the railway line and the River Thames. More extensive and higher-quality habitat is present locally, including Arthur Newbury Park, Kentwood Grove, and McIlroy Park, which offer greater potential for badger sett construction, foraging, and commuting. In contrast, the Site itself is small in extent and lacks suitable banks or undisturbed ground for sett creation. However, the habitats present may facilitate occasional foraging or commuting by urban badgers moving between larger woodland parcels within the surrounding landscape.
- 3.19** On this basis, the Site is considered to be of up to **Site**-level importance for badgers. Confidence in this assessment is **high**.

Bats

- 3.20 There were records of at least three bat species within 2 km of the Site. Records are summarised in Table 4.

Table 4: Records of Bat Species within 2 km of the Site.

Species	Records	Date of most recent record	Distance and direction to closest record (km)
Brown Long-eared Bat (<i>Plecotus auritus</i>)	1	2014	1.1 NE
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	5	2018	1.07 SW
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	1	2014	0.99 SW

- 3.21 Four EPS licences for bats have been granted within 2 km of the Site, both approximately 1.93 km to the west. Three licences, issued in 2016 c. 146 m southwest, permitted the destruction of a Common Pipistrelle, Soprano Pipistrelle and Brown Long-eared Bat roost. The remaining licence, issued in 2011 c.1.59 km southeast permitted the destruction of a Common Pipistrelle roost.

Roosting Bats

- 3.22 There were no buildings or built structures within the Site boundary.
- 3.23 Trees within the site were predominantly semi-mature naturalised species. Of the trees assessed on or adjacent to the Site, three (T4, T21, and T24) were considered to support features suitable for roosting bats. All three trees were categorised as PRF-I (potential roosting features for individual bats), due to the presence of gaps behind plates of mature ivy stems (see Appendix 3).
- 3.24 The Site is valued as being of **Site** importance for roosting bats. Confidence in this assessment is **moderate**.

Foraging/Commuting Bats

- 3.25 Overall, the Site was considered to provide high-quality habitat for foraging and commuting bats, due to the presence of woodland and a hedgerow. However, the woodland is relatively small in extent and edges are subject to surrounding urban influences, including artificial lighting from Tilehurst train station, and adjacent residential development, which are likely to reduce overall foraging quality.
- 3.26 The Site is located approximately 77 m south-west of the River Thames, a high-value bat foraging and commuting corridor, but is separated from it by an active railway line. Despite this barrier, ecological connectivity is maintained via a tree belt running along the near side of the railway, with a further woodland corridor (Thames Path) present between the railway and the river. These features provide potential commuting routes linking the Site to higher-quality foraging habitats beyond the Site boundaries. Additional connectivity is afforded by nearby gardens and pockets of woodland associated with local parks.
- 3.27 Overall, the Site's primary value is considered to be as part of a wider network of linear habitats facilitating bat movement through the urban landscape, rather than as a core foraging area in its own right. The Site is therefore assessed as being of **Site**-level importance for bats. Confidence in this assessment is **moderate**.

Birds

- 3.28** The data search returned 196,933 records for 97 protected bird species within 2 km of the Site. Among these, records included 4 species listed under Schedule 1 of the Wildlife and Countryside Act 1981, including Kingfisher (*Alcedo atthis*), Tawny Owl (*Strix aluco*), and Barn Owl (*Tyto alba*), 17 red listed Birds of Conservation Concern (BoCC)¹⁵ species, including House Sparrow (*Passer domesticus*), Lapwing (*Vanellus vanellus*), and Swift (*Apus apus*), 33 amber-listed BOCC such as Greenfinch (*Chloris chloris*), Bullfinch (*Pyrrhula pyrrhula*), and Stonechat (*Saxicola rubicola*), and 40 NERC Priority bird species such as Skylark (*Alauda arvensis*), Tree Pipit (*Anthus trivialis*), and Nightjar (*Caprimulgus europaeus*).
- 3.29** The on-site woodland and hedgerow provide limited opportunities for commuting, foraging, and nesting by birds, primarily of common and generalist species. The woodland canopy connects to an adjacent woodland parcel, and is near to a vegetated railway corridor, offering some dispersal routes within the local landscape. However, the woodland exhibits poor vertical and structural diversity, with a sparse understorey and scrub layer, and the hedgerow is structurally limited. This reduces the availability of nesting sites and foraging resources.
- 3.30** Given the Site's small size, shaded woodland structure, and proximity to residential properties and a railway, it is unlikely to support breeding populations of open-habitat NERC Priority species such as Skylark, Tree Pipit, or Nightjar, which are typically associated with arable land and open countryside beyond the railway corridor. The Site may support small numbers of breeding generalist woodland and hedgerow species, such as Blackbird (*Turdus merula*), Blue Tit (*Cyanistes caeruleus*), and Wren (*Troglodytes troglodytes*).
- 3.31** During the winter period, the Site may be used opportunistically by transient or roosting birds, including small passerines and common hedgerow species. Such use is likely to be limited in scale and does not indicate the presence of a significant wintering population or species of conservation concern.
- 3.32** Overall, the Site provides suitable habitat for common breeding and wintering bird species, but is unlikely to support significant populations of protected, scarce or specialist birds during either the breeding or wintering periods. The Site is considered to be of low ecological value for birds, contributing only marginally to the local habitat network for widespread and adaptable species. Consequently, the Site is therefore considered to be of **Site** value for birds. Confidence in this assessment is **high**.

Plants

- 3.33** There were records of three Schedule 8 protected plant species within 2 km of the Site. Records are summarised in Table 5.

Table 5: Records of Schedule 8 Protected Plant Species within 2 km of the Site.

Species	Records	Date of most recent record	Distance and direction to closest record (km)
Bluebell (<i>Hyacinthoides non-scripta</i>)	9	2019	1.8 NE
Knapweed Broomrape (<i>Orobanche elatior</i>)	7	2014	1.2 NE
Pyramidal Orchid (<i>Anacamptis pyramidalis</i>)	3	2024	1.8 NE

¹⁵ Eaton, M.A., Aebischer, N.J., Brown, A.F., Harris, S.J., Houghton, R.A., Musgrove, A.J., Noble, D.G., Stroud, D.A., & Gregory, R.D. (2021). *The status of birds in the UK, 2021: The official conservation status of birds in the UK, Channel Islands and Isle of Man*. British Trust for Ornithology (BTO).

- 3.34** No protected plant species were recorded during the UKHab survey, which was conducted in December. However, the presence of woodland and woodland-edge habitat on the Site means that Schedule 8 species Bluebell cannot be discounted as it would not have been identifiable in flower at the time of the winter visit. Similarly, other Schedule 8 species known to occupy woodland such as Bird's-nest Orchid (*Neottia nidus-avis*), Herb Paris (*Paris quadrifolia*), or Broad-leaved Helleborine (*Epipactis helleborine*) would have been dormant during the survey and not readily detectable. The small size of the site, limited structural diversity, and dominance of ivy reduce its potential to support notable plants. Consequently, the site is likely to be of **Site** importance for notable or legally protected plant species. Confidence in this assessment is **moderate**.
- 3.35** There were records of two Schedule 9 invasive plant species within 2 km of the Site. Records are summarised in Table 6.

Table 6: Records of Schedule 9 Invasive Plant Species within 2 km of the Site.

Species	Records	Date of most recent record	Distance and direction to closest record (km)
Australian swamp stonecrop (<i>Crassula helmsii</i>)	1	2024	1.8 NW
Common Rhododendron (<i>Rhododendron ponticum</i>)	3	2013	1.8 NW

- 3.36** No Schedule 9 plants were recorded during the site visit. However, given that species such as Japanese Knotweed and Himalayan Balsam survive the winter in a dormant state, with dead canes or rhizomes remaining below ground or as dry stalks, their absence in winter does not reliably confirm they are not present. Consequently, while no invasive species were observed, this cannot be taken as conclusive. The confidence in their absence is therefore **moderate**.

GCN

- 3.37** No records of GCN, nor any associated European Protected Species (EPS) licences, were identified within 2 km of the Site.
- 3.38** No ponds were present on the Site, nor were any ponds mapped on Ordnance Survey data within 500 m. A drain was identified approximately 163 m north-east of the Site, beyond the River Thames. The River Thames, located approximately 77 m north-east of the Site, represents a significant ecological barrier to dispersal for GCN.
- 3.39** Although some on-site habitats, including woodland and hedgerows, could provide suitable terrestrial habitat for GCN, the absence of suitable breeding waterbodies within 500 m substantially limits the potential for GCN presence. GCN are reliant on ponds for breeding and cannot sustain populations without access to suitable aquatic habitat. Research indicates that GCN are strongly associated with breeding ponds, with individuals most commonly encountered within 50 m and rarely beyond 100 m of a pond¹⁶. Even where linear features facilitate dispersal, records beyond 200–250 m are uncommon. Further studies have shown that the majority of summer refuges and captures occur within approximately 50–63 m of breeding ponds, with few records at greater distances^{17,18}. In the absence of suitable breeding ponds within 500 m of the Site, the likelihood of GCN using the Site is therefore considered to be very low.

16 Cresswell, W. & Whitworth, R. (2004) *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt (Triturus cristatus)*. English Nature Research Reports, Number 576. Available at: <https://publications.naturalengland.org.uk/publication/134002>

17 Jehle, R. (2000). *The terrestrial summer habitat of radio-tracked great crested newts (Triturus cristatus) and marbled newts (T. marmoratus)*. Herpetological Journal, 10(3), 137–142.

18 Cresswell, W. & Whitworth (2004). *Great crested newt report*, p. 36

- 3.40 In light of the absence of suitable breeding ponds within 500 m of the Site, the lack of local records, and the presence of the River Thames as a barrier to dispersal, GCN are considered likely to be absent from the Site and local area. The Site is therefore assessed as being of **negligible** value for GCN, with a **high** level of confidence in this conclusion.

Hazel Dormouse

- 3.41 There were 102 records of Hazel Dormouse identified within 10 km of the Site: the most recent (2025) was 2.3 km northwest, while the closest (2013) was 0.5 km north.
- 3.42 One EPS licence for Hazel Dormouse was granted 4.68 km west of the Site. The licence, granted in 2017, permitted the destruction of a resting site.
- 3.43 The Site contains woodland and a hedgerow which, at a broad habitat level, could theoretically be used by Hazel Dormouse. However, both habitats are considered to be of low suitability. The woodland is small, isolated, and characterised by a closed canopy with a heavily shaded, ivy-dominated ground layer. It lacks a diverse understorey and fruiting shrub layer, which are essential for nesting, foraging, and hibernation. The hedgerow is managed and ornamental in nature, contains a high proportion (over 20%) of non-native species (predominantly Common Snowberry), and exhibits limited structural diversity and connectivity. Although some native species such as Hazel and Elder are present, the hedgerow does not provide the continuous, species-rich structure typically associated with optimal dormouse habitat.

The woodland canopy connects only to a small adjacent woodland parcel and lies close, but not ecologically connected, to a vegetated railway corridor; however, the surrounding landscape is heavily influenced by roads, parking areas, and urban development. This limits functional connectivity and reduces the likelihood of regular dormouse use. Taking into account the Site's small size, isolation, poor structural diversity, lack of suitable understorey and fruiting resources, and the disturbed surrounding context, the Site is considered unlikely to support Hazel Dormouse, including for breeding, nesting, or regular foraging. While very occasional transient movement through the Site cannot be entirely ruled out, the habitats present are not considered suitable to support a resident or sustained population.

- 3.44 Accordingly, the **Site** is assessed as being of low ecological importance for Hazel Dormouse, and no further dormouse surveys are considered necessary. Confidence in this assessment is moderate to **high**.

Notable Invertebrates

- 3.45 No records of legally protected invertebrate species were returned. However, a total of 44 records of notable invertebrate species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and/or as UK Biodiversity Action Plan (BAP) Priority Species were identified within the search area. These included species such as White-letter Hairstreak (*Satyrrium w-album*), Common Glow-worm (*Lampyrus noctiluca*), and Early Mining Bee (*Andrena haemorrhoa*).
- 3.46 Lowland mixed deciduous woodland typically supports notable invertebrate assemblages where there is a high degree of structural diversity, continuity and availability of key microhabitats, particularly standing and fallen deadwood, varied light conditions, and a diverse ground flora. These features are especially important for saproxylic invertebrates and woodland specialist taxa. The woodland within the Site exhibits limited structural complexity, with a relatively uniform canopy, a

heavily shaded and ivy-dominated ground layer, and an absence of standing or fallen deadwood. In addition, a managed non-native ornamental hedgerow is present within the Site, which provides limited ecological connectivity and reduced value for specialist invertebrates when compared with species-rich native hedgerows. Collectively, these characteristics substantially constrain the availability of niches required by protected, rare or otherwise notable invertebrate species. Although the site visit was undertaken in December, when invertebrate activity is low, the assessment of habitat features relevant to invertebrate suitability is considered reliable regardless of season.

- 3.47** Stag Beetle (*Lucanus cervus*) and Lesser Stag Beetle (*Dorcus parallelipipedus*) rely on decaying wood and undisturbed substrates for larval development, typically within buried timber, tree stumps, or long-established deadwood features. No large standing or fallen deadwood was recorded within the Site, or the presence of log piles, woodchip piles, etc. The habitats present are therefore regarded as unsuitable for Stag Beetle.
- 3.48** Overall, the woodland on site is considered to have low suitability for protected, rare or notable invertebrates, particularly saproxylic species. The habitats present may support common and widespread invertebrate assemblages but lack the key attributes required to support species of higher conservation concern. The Site is therefore considered to be of **Site** importance for notable and protected invertebrates, and confidence in this assessment is **high**.

Reptiles

- 3.49** There were records of two reptile species was identified within 2 km of the Site. Records are summarised in Table 7.

Table 7: Records of Reptile Species within 2 km of the Site.

Species	Records	Date of most recent record	Distance to closest record (km)
Grass Snake (<i>Natrix helvetica</i>)	1	2020	1.57
Slow Worm (<i>Anguis fragilis</i>)	96	2025	1.34

- 3.50** The woodland on-site offers opportunities for commuting, foraging, and sheltering reptiles. There were no log piles, brash, rubble, compost heaps, south-facing banks or other features typically used by reptiles for shelter, hibernation, or egg-laying, observed during the site visit. The dense ivy-dominated ground layer further reduces habitat suitability by limiting structural heterogeneity at ground level.
- 3.51** The ornamental hedgerow, dominated by non-native species and subject to regular management, is likely to provide limited value for reptiles, functioning primarily as a linear dispersal feature rather than high-quality habitat. While hedgerows can support reptiles where they are species-rich and structurally diverse, the composition and management of this feature reduce its suitability.
- 3.52** Overall, the habitats present are considered to offer low to moderate suitability for common reptile species, primarily as transient or dispersal habitat rather than for supporting a significant resident population. Based on the available habitat structure at the time of the survey, the Site is unlikely to represent optimal reptile habitat. The site is therefore assessed as being of **Site** level importance for reptiles. Confidence in this assessment is **high**.

Riparian species

- 3.53 One record of a riparian species was identified within 2 km of the Site: an Otter observed approximately 540 m southeast of the Site in 2022. No records of Water Vole or White-clawed Crayfish were returned. No field signs of Otter or Water Vole were found on-site.
- 3.54 The habitats present within the Site, comprising lowland mixed deciduous woodland and a managed non-native ornamental hedgerow, do not provide suitable habitat for riparian species. There are no watercourses, wet ditches, ponds, or riparian margins within or immediately adjacent to the Site, and no features suitable for breeding, resting or foraging by Water Vole or White-clawed Crayfish. The River Thames is located approximately 77 m northeast of the Site; however, the Site is physically and functionally separated from the river corridor by a railway line and associated infrastructure. In addition, the intervening habitats between the Site and the river comprise transport infrastructure and fragmented woodland, limiting ecological connectivity between the Site and the riparian zone.
- 3.55 Otter is a highly mobile species capable of travelling significant distances along river corridors and across terrestrial habitats. However, the Site lacks water features, prey availability, and undisturbed resting locations typically used by Otter, and the intervening railway line represents a substantial barrier to regular movement between the Site and the River Thames.
- 3.56 Overall, the Site is considered to be of **negligible** suitability for riparian species, including Otter, Water Vole and White-clawed Crayfish. The likelihood of these species being present or functionally reliant on the Site is considered very low, and no further survey work is considered necessary. Subsequently, riparian species are not considered further in this assessment

Other Notable Species

- 3.57 There were 65 records of European Hedgehog identified within 2 km of the Site: the closest and most recent record was in 2025, 115 m southwest. No records of Brown Hare, Harvest Mouse, Common Toad, or European Polecat were returned.
- 3.58 These habitats within the Site provide some limited suitability for European Hedgehog, particularly for foraging and dispersal, given the proximity of gardens, boundary features and surrounding green infrastructure. However, the dense shade, ivy-dominated ground layer and lack of rough grassland, scrub mosaics or log piles limit the availability of optimal nesting and foraging habitat within the Site itself.
- 3.59 The Site is considered to be of low suitability for Brown Hare, which typically favours large, open arable landscapes, grassland mosaics and field margins; such habitats are absent within the Site and its immediate surroundings. Harvest Mouse typically requires tall, dense grassland, reedbeds or unmanaged field margins for breeding. The woodland structure and ornamental hedgerow present within the Site do not provide suitable nesting or foraging habitat, and therefore the Site is considered to be of negligible suitability for this species. Common Toad relies on standing or slow-flowing waterbodies for breeding and typically remains within approximately 500 m of aquatic habitats. As no ponds, ditches or other waterbodies were identified within 500 m of the Site, and terrestrial habitat quality is limited, the Site is considered to be of negligible suitability for this species.
- 3.60 Overall, while European Hedgehog may occasionally use the Site for foraging or movement, the Site is not considered to support core habitat for notable terrestrial species. Overall, the Site is considered to be of **Site** importance for European Hedgehog, primarily for transient or foraging use rather than supporting breeding populations. Confidence in this assessment is **high**.

Summary

3.61 A summary evaluation of Site features is provided in Table 8.

Table 8: Summary Evaluation of Features.

Feature	Summary Description	Importance	Confidence
Designated Sites	One European designated site within 13 km. Six SSSIs/LNRs within 5 km. Four LWS within 2 km. The Site lies within the IRZ for one SSSI.	Up to International	High
Habitats	Lowland mixed deciduous woodland (NERC Act 2006 Section 41 Priority Habitat) One managed non-native ornamental hedgerow	Site	High
Rare and notable plants	None observed during the survey.	Site	Moderate
Badger	No setts recorded within or adjacent to the Site. Woodland and hedgerow habitats provide suitable foraging and commuting habitat.	Site	High
Bats	Three trees with PRF-I potential for roosting bats. Habitats provide 'high' suitability for foraging/commuting bats.	Site	Moderate
Birds	Woodland and hedgerow provide nesting, foraging and shelter for common woodland and hedgerow species. Limited suitability for specialist Schedule 1 or BoCC species.	Site	High
Hazel Dormouse	Woodland and hedgerow provide limited connectivity within the wider landscape. Habitats are suitable for possible occasional dispersal use only.	Site	Moderate
Invertebrates	Habitats suitable primarily for common species.	Site	High
Reptiles	Woodland and hedgerow provide limited foraging and dispersal habitat. Likely used by transient individuals only.	Site	High
Riparian species	No watercourses or wet habitats on-site. River Thames located c. 77 m away but separated by railway infrastructure. Site unsuitable for Otter, Water Vole or White-clawed Crayfish.	Negligible	High
Other notable species	European Hedgehog may occasionally forage or move through the Site. Site unsuitable for Brown Hare, Harvest Mouse, Common Toad or European Polecat due to habitat limitations.	Site	High

4.0 Discussion

Description of Proposals

- 4.1 The proposed development for the Site comprises the erection of a detached dwelling with associated access and parking. Detailed plans outlining the layout have been prepared (Appendix 5). The current design seeks to retain the majority of the existing habitats, however c.34% of the woodland and c.5 m of a non-native hedgerow are currently proposed to be removed to facilitate the development.

Designated Sites

- 4.2 A review of statutory designated sites identified a single European site within 13 km of the Site boundary: Hartslock Wood Special Area of Conservation (SAC), located approximately 6.04 km north-west of the Site. Hartslock Wood SAC is designated for its semi-natural dry grasslands and scrubland facies on calcareous substrates, including nationally important orchid-rich grassland. The SAC also supports Yew woodland with a diverse age structure and rich associated flora. The proposed development involves a single residential dwelling within an existing urban context. Given the substantial separation distance, lack of hydrological or functional connectivity, and the small scale of the proposals, direct impacts such as habitat loss, fragmentation, or physical damage to the SAC or its designated features are considered highly unlikely. Potential indirect impacts—including changes to hydrology, water quality, air quality, or recreational pressure—are also considered unlikely. The proposals do not involve water abstraction, discharge, or alterations to surface water flow, and a single dwelling is not expected to generate a meaningful increase in recreational use of the SAC, particularly given the availability of closer, more accessible green spaces and the absence of new access routes. Additionally, the IRZ for the underpinning SSSI for Hartslock SAC does not consider residential planning to result in a harmful effect to the SAC. On this basis, the proposed development is not predicted to result in significant effects on European designated sites.
- 4.3 Six nationally designated sites were identified within 5 km of the Site boundary, including Sulham and Tidmarsh Woods and Meadows SSSI, located approximately 1.03 km north-west, for which the Site falls within the IRZ. Natural England's IRZ guidance identifies certain types of residential development that may require consultation. The proposed development, comprising a single dwelling, does not fall within categories of development likely to affect SSSI features. Direct impacts are ruled out due to separation distance, lack of shared boundaries, and the limited footprint of the works. Indirect impacts—including hydrological effects, air quality changes, or increased recreational pressure—are also considered unlikely, as a single dwelling would not result in a noticeable increase in visitor numbers, particularly in an urban context with closer, accessible green spaces. Consequently, the proposals are not predicted to result in significant effects on nationally designated sites.
- 4.4 A review of non-statutory designated sites identified four LWS within 2 km of the Site. The Site does not lie within or adjacent to any non-statutory site, and no direct habitat loss or physical impacts are anticipated. Given the small scale of the residential development, indirect effects on nearby LWS are also considered unlikely. The proposals would not alter access or management of these sites, nor lead to significantly increased recreational pressure or habitat deterioration. On this basis, the proposals are not predicted to result in significant effects on non-statutory designated sites.
- 4.5 The proposed development is considered to have a **neutral** effect on designated sites.

Habitats

- 4.6** The proposed development comprises the construction of a single residential dwelling and driveway, which would result in the loss of approximately 34% of the on-site woodland. The proposed dwelling is situated within a relatively open, flat part of the Site where the woodland structure was less developed and formed a localised clearing. The majority of woodland habitat, including the boundaries, would be retained. Approximately 5 m of predominantly non-native hedgerow would be removed to facilitate site access. The habitat loss would reduce the Site's value as a discrete woodland unit; however, retained peripheral woodland will continue to function as part of the local ecological network. Taking into account the Site's non-designated status, the impact is considered to be minor adverse at the local (parish) scale.
- 4.7** While the woodland present within the Site met the broad definition of a Priority Habitat, it does not benefit from statutory protection and is considered to be a sub-optimal representation of the habitat. The woodland was small, fragmented, and of low ecological condition, and was situated within a highly urbanised context, bounded by roads, parking areas, and built development. These factors substantially limit its functional connectivity to the wider landscape. The woodland was characterised by a closed canopy, a heavily shaded and ivy-dominated ground layer, and a poorly developed understorey and shrub layer. It lacked species-rich ground flora, structural diversity, deadwood resources, and other features typically associated with higher-value woodland habitats. No ancient woodland, veteran trees, or notable woodland species were recorded during the survey. As a result, the woodland was not considered to perform a significant ecological function within the local Green Network. In accordance with Policies EN12 and EN14 of the Reading Local Plan, the woodland is therefore not considered to represent an important woodland resource for which full retention would be required, provided that impacts are minimised and opportunities for enhancement are delivered where practicable. The remaining hedgerow and woodland areas outside the development footprint would be retained, limiting wider ecological impacts.
- 4.8** Under current proposals and in the absence of mitigation, potential impacts during the construction phase include direct loss of habitat through site clearance and damage to retained habitats e.g., due to pollution events, direct damage, or compaction of roots. In addition, retained habitats could be subject to additional indirect effects through increased light disturbance. During the occupational phase, retained habitats are also at risk of losing their ecological functionality through edge effects due to lighting and recreational disturbance, therefore adversely affecting their biodiversity value.
- 4.9** It is recommended that all retained habitats are protected during construction works through the provision of suitable fencing such as Heras fencing. Heras fencing should follow BS standard BS 5837: 2012 Trees in relation to design, demolition and construction. A CEMP: Biodiversity should be produced as part of a planning condition to detail how retained habitats will be protected through the construction period.
- 4.10** To minimise impacts of habitat loss, the masterplan should seek to retain all existing boundary features as far as possible, creating gaps only where strictly necessary to allow access. Preferentially, routes should make use of existing gaps and areas of lower-density vegetation, avoiding mature notable trees. Additionally, a buffer should be applied to edge habitats, which will serve to protect both the retained habitats and associated protected species from lighting disturbance post development. Together, adherence to these recommendations will serve to maintain a functional network of 'green corridors' around the site.
- 4.11** Mitigation for habitat loss should include the replacement of each tree removed within the woodland

with a new native tree of equivalent species or functional role, ensuring a like-for-like compensation for the trees proposed for removal. Enhancements should focus on increasing the structural and botanical diversity of retained woodland and hedgerow. The woodland can be improved through understorey planting with native shrubs such as Hazel, Hawthorn (*Crataegus monogyna*), and Dogwood (*Cornus sanguinea*) to provide cover and food resources for birds and small mammals. Glade creation will increase light penetration, supporting ground flora and invertebrates, while deadwood retention in the form of standing snags or log piles will provide habitat for saproxylic invertebrates and fungi. Hedgerows can be enhanced by infilling gaps with native species and implementing management practices to promote dense growth and species diversity. Emphasis should be placed on incorporating plants that provide value to wildlife, particularly invertebrates, pollinators, and birds. All planting should comprise native species, following the species list provided in Appendices 6 and 7, with examples including Rowan (*Sorbus sp.*), Cherry (*Prunus sp.*), Beech (*Fagus sylvatica*), and Hornbeam (*Carpinus betulus*). Any proposed amenity grassland should be sown with a wildlife-friendly mixture, such as Emorsgate EL1 flowering lawn or a similar pollinator-rich seed mix. The inclusion of green walls and a green roof on the proposed dwelling would further contribute to ecological enhancement. Together, these measures will enhance the ecological functionality, connectivity, and biodiversity value of the retained woodland and hedgerow, mitigating the impact of tree loss and improving habitat quality across the Site.

- 4.12** The retention and protection of remaining habitats, buffering of works from sensitive areas, and inclusion of habitat enhancements will help maintain ecological connectivity and contribute to local biodiversity. Following implementation of the above mitigation and enhancement measures, the residual impact is assessed as **neutral**, with potential for minor beneficial effects at the local parish level.

Protected and Invasive Plant Species

- 4.13** The majority of Schedule 8 and 9 plant species would not have been identifiable in flower during the winter survey period. As such, the absence of these species during the winter survey does not reliably confirm their absence from the site. Further survey work undertaken during the optimal season (spring to early summer) would be required to fully exclude the presence of notable and invasive plant species.

Biodiversity Net Gain

- 4.14** The proposed development is considered exempt from mandatory Statutory Biodiversity Net Gain requirements (as per the Environment Act 2021), as it comprises a self-/custom-build project for the construction of a single dwelling to be occupied by the client. Furthermore, as per Local Policy EN12: Biodiversity¹⁹: 'On all development sites, a 10% Biodiversity Net Gain (BNG) must be achieved, except that which is exempt as set out within The Biodiversity Gain Requirements (Exemptions) Regulations 2024'. Accordingly, a Biodiversity Net Gain assessment is not required.

19 Reading Borough (2025) *Reading Borough Local Plan Adopted November 2019 Submission Draft Partial Update May 2025*. <https://images.reading.gov.uk/2025/05/LP001-Local-Plan-Partial-Update-Submission-Draft-May-2025.pdf>

Protected and Notable Species

Badger

- 4.15** Badgers are legally protected under the Protection of Badgers Act (1992).
- 4.16** The Site contains suitable badger foraging and commuting habitat, including woodland and hedgerows. To facilitate the proposed development, c.34% of woodland and c.5 m of hedgerow will be removed. Although the majority of remaining habitats are due to be retained, the overall extent of suitable foraging habitat within the Site will be reduced.
- 4.17** Direct impacts to badgers during construction could include death or injury from open excavations, trapped access to stored materials. Indirect impacts may include disturbance from machinery and lighting. The loss and fragmentation of habitats may temporarily restrict foraging areas or impede movement through the Site, particularly where linear features are removed.
- 4.18** The following precautionary measures are recommended throughout the construction phase to avoid harm or disturbance to Badger:
- Boundary habitats should be retained and appropriately protected and buffered where possible.
 - All site personnel should be fully briefed on the presence of badgers and the mitigation measures in place. Toolbox talks should be provided to ensure contractors can identify and report any potential badger setts encountered during works.
 - Any trenches or deep pits must be securely covered overnight to prevent badgers from falling in and becoming trapped. Alternatively, a rough wooden plank, set at an angle no steeper than 45 degrees, should be provided as an escape route.
 - All trenches and pits should be checked each morning and evening to ensure that no badgers have become trapped.
 - The storage of topsoil or other soft building materials should be carefully managed. Badgers may attempt to excavate new setts in such materials. To prevent this, material stockpiles should be inspected daily before construction activities begin.
 - All chemicals must be securely stored to prevent access by badgers and to minimise the risk of spills. This includes overnight storage and must be compliant with COSHH (Control of Substances Hazardous to Health) regulations.
 - Any open pipework with a diameter greater than 120 mm should be securely capped or covered at the end of each workday to prevent badgers from entering and becoming trapped.
 - Litter should be removed at the end of each working day, or otherwise kept to an absolute minimum, to prevent attracting wildlife to the site.
 - A site-wide speed limit of 20 mph or less should be enforced to reduce the risk of vehicle collisions with badgers or other wildlife.
 - Security and task lighting should be kept to a minimum and sensitively positioned to avoid disturbance to badgers, particularly during nocturnal periods.
- 4.19** Site boundaries should remain permeable to badgers. Hedgerows are preferred over fencing, but where fencing is necessary, it should be designed to allow badger movement and maintain ecological connectivity.
- 4.20** Additionally, a sensitive lighting strategy should be implemented to ensure that construction and operational lighting are minimised and directed away from retained linear habitats, to maintain functional dark corridors, and support nocturnal movement.

- 4.21** Badgers are highly mobile and prolific sett builders, and suitable habitats for sett construction, such as woodland and hedgerows, are present on and adjacent to the Site. Therefore, if construction does not commence within 12 months of the site visit, an updated badger walkover survey should be undertaken across the Site and within 30 m of its boundaries. If any new setts or evidence of badger activity are recorded, appropriate mitigation must be implemented in accordance with current legislation and best-practice guidance.
- 4.22** To enhance the site for badgers, any proposed amenity grassland should be managed with varied mowing regimes, incorporating areas of short sward to increase earthworm availability and enhance foraging opportunities for badgers. Retained habitats should be buffered and managed to improve their ecological value. Further enhancements could include the planting of a diverse mix of native, berry- and fruit-bearing trees and shrubs, as well as improving the hedgerows around the Site boundaries to increase foraging resources and maintain connectivity, thereby supporting badger movement within the Site and the wider landscape.
- 4.23** The above mitigation and enhancement measures are considered to result in a **neutral** residual effect.

Bats

Roosting

- 4.24** All bat species are legally protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it an offence to damage or destroy a bat roost (even when bats are not present), obstruct access to a roost, or to deliberately capture, injure, kill or disturb bats in a way that affects their ability to survive, breed, rear young, or maintain their local distribution.
- 4.25** Trees T4, T21 and T24 had PRF-I suitability. Should these trees become due to be impacted, they should be subject to a pre-fell aerial inspection under supervision of an ECoW as per guidance. If no bats are present the tree should be felled immediately. If bats are identified in the inspection, then works should stop and a licence from Natural England may be required to facilitate their removal. If it is not possible to fully inspect the features via an aerial inspection then the features may be subject to dusk emergence surveys using night vision aids (NVAs) at an appropriate time of year.
- 4.26** Any new external lighting should be designed to avoid direct illumination of retained and newly planted hedgerows and trees. A sensitive lighting strategy should be implemented during both construction and occupation phases to prevent disturbance to bats, particularly along foraging and commuting corridors. The lighting design should follow the principles set out in the Bat Conservation Trust and Institution of Lighting Professionals Guidance Note 08/23 (Bats and Artificial Lighting at Night), including but not limited to:
- Use of warm white LED lighting (<2700K) to reduce blue light content.
 - Avoidance of UV-emitting sources (no metal halide or fluorescent lighting).
 - Directional lighting with full cut-off lanterns to minimise upward and outward light spill.
 - Limiting light column height (e.g. max. 8m) and spacing columns to reduce overlap.
 - Use of shields, baffles, and timers/PIR sensors to reduce unnecessary illumination.
 - Ensuring sensitive areas maintain nocturnal light levels of ~0.1–0.25 lux, not exceeding 1 lux where avoidance is impossible (e.g. road crossings).

- 4.27 At the detailed design stage, a lighting impact assessment should be undertaken by a suitably qualified ecologist using lux contour modelling. This assessment must demonstrate how light spill will be minimised along retained and newly created habitat corridors, using data beyond the road surface alone.
- 4.28 The proposed development presents an opportunity to enhance the site for roosting bats through the incorporation of artificial roost features. Integrated bat boxes (e.g. Habibat or similar) should be built into the fabric of the new dwelling, preferably on gable ends or beneath eaves, ideally near retained vegetation or site boundaries. In addition, durable external bat boxes (e.g. woodcrete designs such as the Schwegler 1FD) can be installed on retained trees. Boxes should be mounted at least 3 m high, with an unobstructed flight path, and installed across a range of southerly orientations (south, south-west, and south-east).
- 4.29 Additionally, where trees are managed or removed, there is potential to enhance roosting provision through habitat creation techniques, such as deliberately cutting crevices.
- 4.30 With appropriate design, mitigation is considered fully achievable within the site. The integration of artificial roosting features and implementation of a sensitive lighting plan will provide a net **positive** ecological enhancement for roosting bats.

Foraging/Commuting

- 4.31 The habitats on-site provide minor areas of foraging and commuting habitat for bats. The proposed development may result in the loss of approximately half of the woodland. This reduction in habitat may decrease foraging opportunities and reduce shelter along bat commuting routes through the Site. However, the remaining woodland and hedgerows will retain some ecological functionality, maintaining partial connectivity across the Site.
- 4.32 To mitigate impacts, retained boundary habitats should be protected with temporary barriers, and machinery should avoid compacting or damaging these features. A sensitive lighting strategy should be implemented during construction and operation to minimise light spill onto retained and proposed linear features, maintaining functional dark corridors for foraging and commuting bats, in line with current best practice. With the implementation of a sensitive lighting strategy n, further bat surveys are not currently considered necessary. Should plans change—for example, if additional hedgerow or tree removal is required, or if lighting is determined to have a significant effect on retained commuting or foraging habitats—further bat surveys may then be required to inform appropriate mitigation.
- 4.33 Opportunities for habitat enhancement could include new tree and shrub planting to bolster connectivity. Supplementary planting of nectar-rich and night-scented species would support insect prey populations and further enhance the Site for bats. Suggested species are listed in Appendices 6 and 7.
- 4.34 With these mitigation and enhancement measures, the residual impact on foraging and commuting bats is expected to be **neutral**.

Birds

- 4.35 All wild birds, their nests, and eggs are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure, or take any wild bird or to damage or destroy their nests or eggs while in use or being built. Species listed under Schedule 1 of the Act receive additional protection, making it an offence to disturb them at the nest or to disturb their dependent young.
- 4.36 The Site comprises lowland mixed deciduous woodland and a managed hedgerow, which provide foraging and commuting opportunities for birds. Connections to adjacent treelines, small parcels of woodland, and a vegetated railway corridor provide dispersal routes for generalist woodland and hedgerow species. While the understorey is limited and the hedgerow structurally simple, the Site contributes to the local green network, supporting species such as Blackbird (*Turdus merula*), Blue Tit (*Cyanistes caeruleus*), and Wren (*Troglodytes troglodytes*). The Site is unlikely to support breeding populations of open-habitat NERC Priority species such as Skylark, Tree Pipit, or Nightjar, given its small size, shaded woodland structure, proximity to residential areas, and adjacent railway.
- 4.37 The proposed development may result in the loss of up to approximately 34% of the woodland, and some hedgerow. This would reduce foraging habitat, shelter, and commuting corridors for local birds. Temporary disturbance during construction, including noise, movement, and vegetation clearance, could also displace birds from retained habitats.
- 4.38 Vegetation clearance should be undertaken outside the bird breeding season (March–August) wherever possible. Where this is unavoidable, a pre-clearance check by a suitably qualified ecologist should be conducted within 24 hours of works. Any active nests must be retained in situ, with an appropriate buffer maintained until nesting is complete and fledglings have dispersed. Retained woodland and hedgerows should be protected with temporary fencing to prevent damage or compaction, and construction lighting should be minimised and directed away from retained linear habitats to reduce disturbance to nocturnal and commuting species.
- 4.39 Losses of trees and hedgerows may be offset through new native tree planting and enhancement of the existing hedgerow. The hedgerow may be infilled with native species and managed under a sensitive, long-term regime to encourage dense, bushy growth, enhancing value for nesting and commuting birds. Supplementary planting of native fruit- and seed-bearing shrubs, nectar-rich, and night-scented plants will support invertebrate prey populations and provide year-round foraging opportunities. If amenity grassland is proposed, grassland margins and other retained habitats should be managed sensitively to maintain habitat structure for ground-foraging species. To enhance on-site nesting opportunities, integral bird boxes (e.g. for Swift and House Sparrow should be incorporated into building designs at a minimum ratio of one box per dwelling, positioned on north- or east-facing elevations to minimise overheating. Additional boxes for cavity-nesting species such as Blue Tit, Great Tit and Starling can be installed on retained trees or integrated into garden fencing, depending on site layout and landscape strategy.
- 4.40 With the implementation of these mitigation and enhancement measures, including timing of works, habitat retention, planting, and provision of nesting features, the residual effect on the local bird assemblage is expected to be **positive**.

Hazel Dormouse

- 4.41** The Site contains woodland and hedgerow habitats which, in theory, could be traversed by Hazel Dormice as part of wider landscape movements. However, these habitats are of low suitability due to their small size, isolation, limited structural diversity, and poor availability of key dormouse resources.
- 4.42** The woodland is characterised by a closed canopy, heavily shaded conditions, and an ivy-dominated ground layer, with a poorly developed understorey and a lack of continuous fruiting shrub species required for nesting, foraging, and hibernation. The hedgerow is managed and ornamental in nature, contains a notable proportion of non-native species, and provides limited structural complexity. As a result, the Site is considered unlikely to function as a regular commuting corridor or foraging area, and is not suitable to support a resident or breeding dormouse population. Although dormice are known to occur in the wider landscape, including records within 0.5 km of the Site, the Site itself lacks the habitat quality and connectivity necessary to support meaningful use by the species.
- 4.43** Given the already limited suitability of the woodland and hedgerow habitats for Hazel Dormouse, their proposed partial removal is not anticipated to result in a significant adverse effect on the species. The remaining woodland and hedgerow will be retained where practicable; however, their retention does not materially alter the conclusion that the Site is of negligible value for dormice.
- 4.44** As a precautionary measure, vegetation clearance should be undertaken in accordance with a Precautionary Working Method Statement (PWMS) prepared and implemented by a suitably qualified ecologist. Clearance should avoid the main dormouse activity period where feasible, and any works should be supervised if undertaken during higher-risk periods. In the unlikely event that a dormouse or evidence of a nest is encountered, works should cease immediately and advice sought from Natural England.
- 4.45** Although dormouse-specific mitigation is not considered necessary, opportunities exist for biodiversity enhancement through improvements to retained habitats. These could include targeted native shrub planting within retained woodland and hedgerows to improve structural diversity and foraging resources, and management to encourage understorey development. Such measures would represent ecological enhancement rather than compensation for dormouse impacts.
- 4.46** Given the low suitability of the on-site habitats, their isolation within an urbanised landscape, and the absence of features required to support breeding or hibernation, the Site is assessed as being of low ecological importance for Hazel Dormouse. The proposed habitat losses do not alter this conclusion. Accordingly, no further dormouse surveys are considered necessary, and residual effects on the species are assessed as low.

Invertebrates

- 4.47** The Site is considered unlikely to support legally protected or notable invertebrate species due to the limited extent, structural complexity, and continuity of higher-value habitats. Desk study data identified 44 records of notable invertebrates within the local area, including White-letter Hairstreak, Common Glow-worm, and Early Mining Bee. However, the woodland and hedgerow on-site are of limited ecological suitability for these species, and the Site is expected to support common, widespread invertebrate assemblages, but not species of higher conservation concern.

- 4.48 The proposed development may result in the permanent loss of up to approximately 34% of the woodland, along with c. 5 m of hedgerow to facilitate construction and access. While this will reduce available habitat for common invertebrates, the overall impact on notable or protected species is considered low, given the limited suitability of the affected habitats. Temporary disturbance may occur during construction, particularly to retained boundary features, but these habitats will be protected and allowed to regenerate, mitigating temporary effects.
- 4.49 Opportunities exist to enhance the Site for invertebrates, which may help offset the loss of woodland habitat. Recommended measures include retention and augmentation of hedgerows and woodland edges to improve structural complexity, and creation of deadwood features such as log piles, standing deadwood, and partially buried timber to provide resources for saproxylic species. Incorporation of nectar- and pollen-rich native plants within landscaping, including night-scented species such as Red Campion (*Silene dioica*), Common Honeysuckle (*Lonicera periclymenum*), and Night-flowering Catchfly (*Silene noctiflora*) would benefit moths and other pollinators. Additionally, installation of invertebrate boxes or “bug hotels” on retained trees or in landscaped areas to provide shelter and breeding sites.
- 4.50 Subject to the implementation of these mitigation and enhancement measures, the residual effect of the proposed development on invertebrates is anticipated to be **positive** at the Site level.

Reptiles

- 4.51 The woodland and hedgerow on-site provide limited opportunities for reptiles to forage, bask, shelter, or commute across the Site. The woodland canopy and hedgerow connect to adjacent habitats, potentially facilitating movement for species such as Slow Worm and Grass Snake, for which records exist within 2 km of the Site. However, the dense, ivy-dominated ground layer, absence of log piles, brash, compost heaps, south-facing banks, or other structural features typically used by reptiles for shelter, hibernation, or egg-laying, reduces habitat suitability. The ornamental hedgerow is dominated by non-native species and regularly managed, providing limited ecological value beyond linear dispersal opportunities.
- 4.52 The proposed development will reduce the availability of shelter and foraging resources for reptiles, however retained habitats adjacent to the works area will continue to provide alternative refuges and movement corridors. Temporary disturbance may occur during vegetation clearance and construction, particularly to reptiles using the woodland and hedgerow margins.
- 4.53 Mitigation measures should include sensitive vegetation clearance under a PWMS supervised by an Ecological Clerk of Works (ECoW). Vegetation removal should follow a staged, directional approach, allowing any reptiles present to move into retained habitats. Excavations should be covered overnight or provided with escape ramps to prevent reptiles becoming trapped. Machinery and spoil should avoid compacting or damaging retained habitat, and temporary lighting should be minimised and directed away from retained hedgerows and woodland edges to reduce disturbance.
- 4.54 Opportunities exist to enhance retained habitats for reptiles post-construction. Measures may include creation of log pile hibernacula and refugia within retained woodland edges or landscaped areas, and enhancement of hedgerows and woodland margins with native scrub and structural diversity to provide shelter, foraging, and thermoregulation sites. Sensitive long-term management is recommended of woodland understorey and any proposed grassland areas to maintain structural heterogeneity.

4.55 With the implementation of these mitigation and enhancement measures, the residual effect of the proposed development on reptiles is anticipated to be **minor positive** at Site level. The availability of adjacent retained habitats, combined with sensitive working practices, is considered sufficient to prevent significant adverse impacts. Given the limited scale and low habitat suitability, formal reptile presence/absence surveys are not considered necessary.

Other notable species

- 4.56 Section 40 of The Natural Environment and Rural Communities Act (NERC) 2006 places a legal duty on Local Authorities to conserve biodiversity. Section 41 (S41) sets out a list of 943 species and habitats of principal importance. These species are known as England Biodiversity Priority (EBP) species and are those identified as requiring action under the former UK Biodiversity Action Plan (BAP) and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.
- 4.57 The Site provides limited habitat for notable species, particularly European Hedgehog, which may use the woodland and hedgerow for foraging and dispersal. The proximity of gardens and surrounding green infrastructure facilitates movement through the landscape. However, the dense shade, ivy-dominated ground layer, and limited structural diversity reduce the availability of optimal nesting, foraging, and hibernation habitat.
- 4.58 Potential impacts to European Hedgehog and other notable species during construction include injury or mortality from vegetation clearance, excavation, or machinery operations, and temporary loss or fragmentation of linear and boundary habitats. Indirect impacts may arise from increased lighting, noise, or human activity during construction, potentially disrupting movement and foraging behaviour.
- 4.59 Mitigation measures should include:
- Precautionary working measures as recommended to safeguard Badger
 - Ecological supervision by a suitably qualified ecologist during key operations, including hedgerow/tree removal and fence erection, is recommended to ensure species are not harmed.
 - Undertaking vegetation clearance outside periods when Hedgehogs are active where feasible (typically avoiding March to September), or under the supervision of a suitably qualified Ecologist.
 - Using staged or directional vegetation removal to allow animals to move into retained habitats.
- 4.60 Post-construction, opportunities exist to enhance habitats for European Hedgehog and other transient species, including creating and maintaining hibernacula such as log piles or leaf litter piles within retained woodland and hedgerow margins, enhancing hedgerows and woodland margins with native shrubs to increase cover and foraging opportunities, and creating small scrub or wildflower pockets to support invertebrate prey.
- 4.61 Site boundaries should remain permeable to hedgehogs. Hedgerows are preferred over fencing, but where fencing is necessary, 'Hedgehog Highways' should be installed to allow free movement across the Site. It should be designed to allow badger movement and maintain ecological connectivity.
- 4.62 Overall, with the implementation of sensitive working practices, habitat retention, and ecological enhancements, the residual impact on notable terrestrial species is anticipated to be **minor positive** at Site level.

5.0 Conclusions

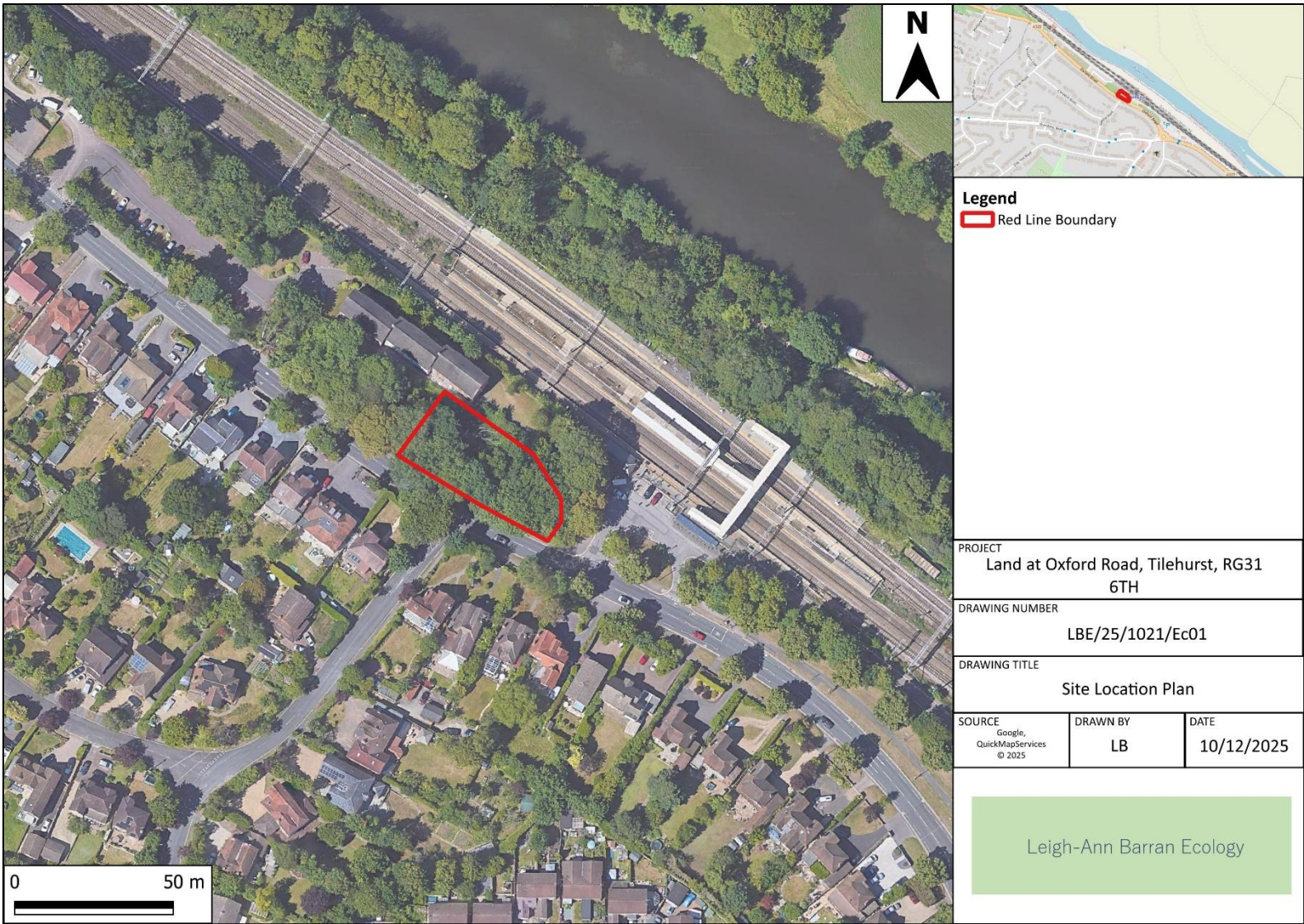
5.1 A summary of likely impacts, and proposed mitigation and enhancements is provided in Table 9.

Table 9: Summary of Likely Impacts, and Proposed Mitigation and Enhancement Measures.

Feature	Likely Impacts	Further Surveys and Assessment	Likely Mitigation and Enhancement Measures	Residual Effect
Designated sites	None.	None.	None.	Neutral
Habitats	Loss of up to c.34% of woodland and c.5 m of hedgerow Potential damage/compaction to retained habitats Light and recreational disturbance	Botanical survey	Retention and buffering of remaining habitats Replacement planting of removed trees Woodland understorey and hedgerow enhancement Wildlife-friendly grassland; and other enhancements. CEMP Biodiversity Sensitive lighting	Neutral
Badger	Mortality/injury during excavation Loss/fragmentation of foraging and commuting habitat Disturbance from lighting and machinery	Update badger walkover recommended if >12 months since initial survey	Precautionary measures. Enhancements such as native tree and shrub planting.	Neutral
Bats	Death/injury to roosting bats Loss/disturbance of potential roosts Loss of commuting/foraging habitat and disturbance to foraging/commuting bats from works or lighting	Pre-fell aerial inspection of PRF-I trees; dusk emergence surveys if inspection not possible.	Licences if bats present Sensitive lighting Retention/enhancement of roosting and foraging/commuting features Installation of bat boxes	Neutral - likely positive
Birds	Death/injury to nesting birds, chicks, and eggs Disturbance to nesting birds Destruction of nest Loss of nesting/foraging habitat	Pre-clearance checks if works occur March–August	Vegetation clearance outside breeding season where possible Pre-clearance check by ECoW if necessary. Retention/protection of habitats Sensitive lighting Native fruit- and nectar-bearing planting Bird box installation	Positive

Feature	Likely Impacts	Further Surveys and Assessment	Likely Mitigation and Enhancement Measures	Residual Effect
Hazel Dormice	Injury/disturbance during vegetation clearance Disturbance during occupation Minor reduction in foraging habitat Potential restriction of commuting habitat and food resources	Clearance under PWMS by dormouse-licensed or ecologically accredited professional	Retention and buffering of boundary habitats Supplementary native planting, woodland understory maintenance	Neutral
Invertebrates	Temporary disturbance Loss of woodland and hedgerow	None required	Retention and buffering of habitats Wildlife-friendly planting including nectar- and night-scented species Habitat enhancements and installation of invertebrate boxes Sensitive lighting	Positive
Reptiles	Mortality/injury during vegetation clearance and construction Temporary loss of foraging/commuting habitat	None required; impacts can be sufficiently mitigated through sensitive working methods under supervision of ECoW	Vegetation clearance under ECoW supervision outside hibernation season, using directional/staged cuts to move reptiles into retained adjacent habitats Precautionary working methods Retention and protection of habitat Post-construction habitat enhancement Sensitive lighting and machinery operation	Minor positive
Other notable species	Injury/mortality Temporary habitat loss/fragmentation Disturbance from lighting	None required	Precautionary working measures Ecological supervision during vegetation clearance; staged/directional removal Vegetation clearance outside active periods where feasible Retention and enhancement of hedgerows/woodland Hibernacula creation and installation of Hedgehog Highways	Minor positive

Appendix 1: Site Location Plan



Appendix 2: Legislation and Policy

National Planning Policy

The NPPF states that:

Paragraph 175

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

Paragraph 181

When determining planning applications, local planning authorities should apply the following principles:

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

Wildlife Legislation

The primary statutes governing wildlife protection in the UK are the Conservation of Habitats and Species Regulations 2017 (referred to as the Habitats Regulations) and the WCA 1981. The Habitats Regulations focus on sites and species of international significance, while the WCA addresses those of national importance.

Certain habitats and species within discrete sites are protected as SSSI under the WCA 1981. A proportion of these are more strictly protected as proposed or designated SPA, SAC and Ramsar sites under the Conservation of Habitats and Species Regulations 2017. These designations protect features and resources listed as being of international importance from both direct and indirect effects arising from a range of issues including proposed development. In addition, non-statutory designated sites (e.g. Local Wildlife Sites) are protected under the National Parks and Access to the Countryside Act 1949 Section 21.

Section 40 of the NERC Act 2006 places a legal duty on Local Authorities to conserve biodiversity. Section 41 (S41) sets out a list of 943 species and habitats of principal importance. These species are known as England Biodiversity Priority (EBP) species and are those identified as requiring action under the former UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

Native species-rich hedgerows that fit certain criteria are protected as being 'Important' under the Hedgerow Regulations (1997).

Japanese Knotweed (*Fallopia japonica*), along with other introduced and invasive species are listed under Schedule 9 of the WCA 1981. Japanese Knotweed is highly invasive and its rhizomes cause damage to built structures. Hence it is also classed as controlled waste under the Environment Protection Act 1990 and has therefore either to be removed or disposed of in a licensed landfill or the rhizomes buried to a depth of at least 5 m.

Certain species listed on Schedule 5 of the WCA 1981, including all bat species, Great Crested Newt, Hazel Dormouse, and Otter, are also protected under Schedule 2 of the Habitats Regulations 2010 making them European Protected Species (EPS). Taken together it is illegal to:

- Deliberately kill, injure or capture any wild animal of EPS;
- Deliberately disturb wild animals of any EPS in such a way to be likely to significantly affect:
 - The ability of that species to survive, breed, rear or nurture their young; or
 - The local distribution of that species.
- Recklessly disturb an EPS or obstruct access to their place of rest;
- Damage or destroy breeding sites or resting places of such animals;
- Deliberately take or destroy the eggs of such an animal;
- Possess or transport any part of an EPS, unless acquired legally; and/or
- Sell, barter or exchange any part of an EPS.

A range of species other than birds, including Water Vole, is protected from disturbance and destruction under the WCA 1981 through inclusion on Schedule 5.

Badger is protected from sett disturbance and destruction under the Protection of Badgers Act 1992.

All breeding birds are protected from deliberate destruction under the WCA 1981. Certain species are further protected from disturbance at their nest sites being listed on Schedule 1 of the WCA 1981.

Common reptiles including Common Lizard, Slow-worm, Grass Snake and Adder are protected under the WCA 1981, they are listed as schedule 5 species, therefore part of Section 9(1) and section 9(5) apply; the Countryside and Rights of Way Act 2000 (CRoW) also strengthens their protection.

Appendix 3: UKHab Plan



Land at Oxford Road, Tilehurst, RG31 6TH - Preliminary Ecological Appraisal

Appendix 4: Site Photographs



Photo 1. Lowland mixed deciduous woodland.



Photo 2. Non-native ornamental hedge.



Photo 3. View of the Site from the south.



Photo 4. View of the Site from the east.

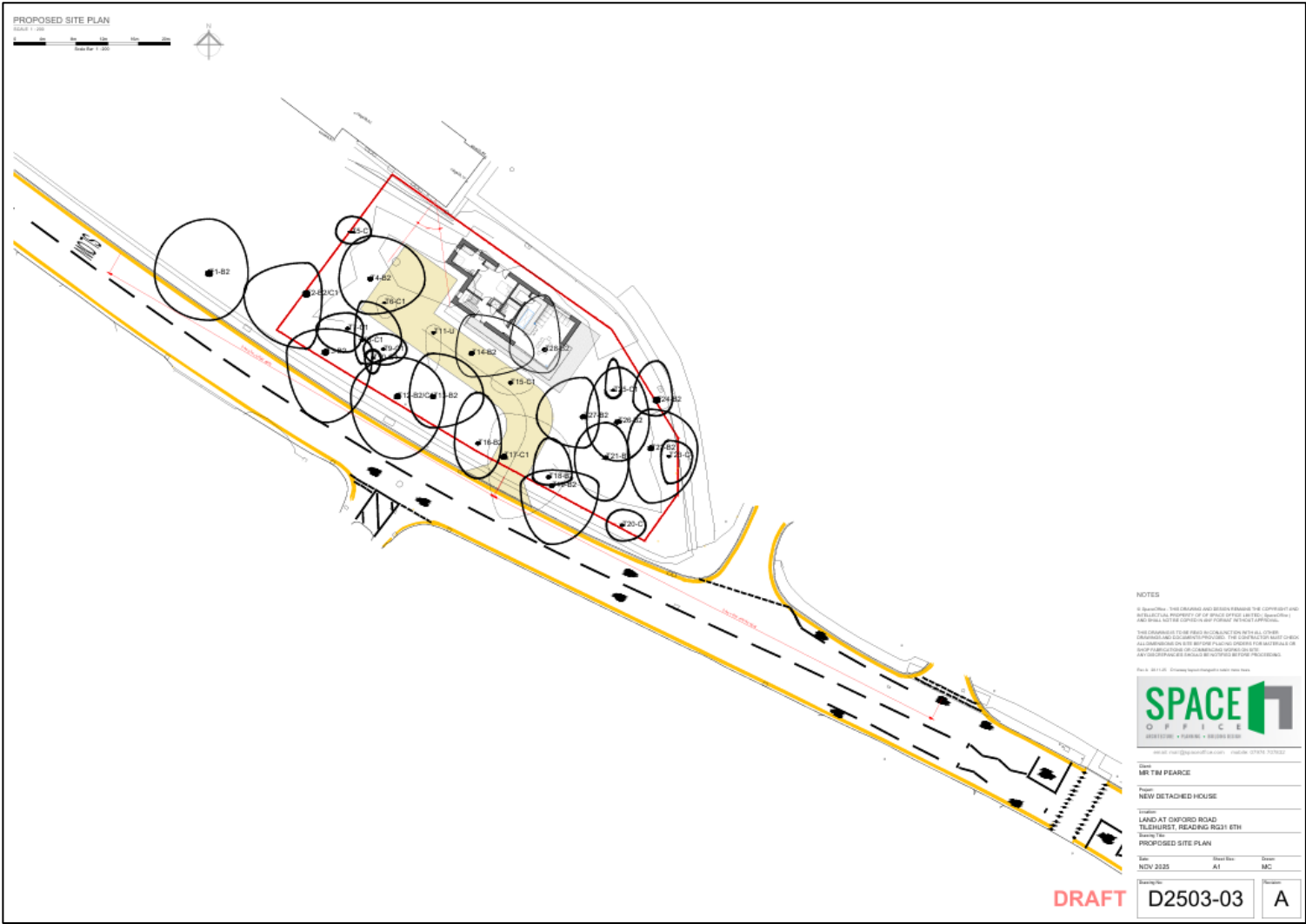


Photo 5. Mammal snuffle holes.



Photo 6. T24

Appendix 5: Proposed Site Layout



Land at Oxford Road, Tilehurst, RG31 6TH - Preliminary Ecological Appraisal

Appendix 6: Plant Species of Known Benefit to Wildlife

Common Name	Scientific Name	Benefits
Blackthorn	<i>Prunus spinosa</i>	Nectar, fruit, larval foodplant, nesting cover
Broom	<i>Cystisus scoparius</i>	Nectar, larval foodplant
Buckthorn #	<i>Rhamnus cathartica</i>	Nectar, berries, larval foodplant, nesting cover
Crab Apple	<i>Malus sylvestris</i>	Nectar, nesting cover, fruit
Dog Rose	<i>Rosa canina</i> agg.	Nectar, fruit, larval foodplant, nesting cover
Dogwood	<i>Cornus sanguinea</i>	Nectar, fruit, larval foodplant
Elder	<i>Sambucus nigra</i>	Nectar , fruit, larval foodplant, nesting cover
Field rose	<i>Rosa arvensis</i>	Nectar, larval foodplant, fruit
Field maple	<i>Acer campestre</i>	Nesting cover,
Gorse	<i>Ulex europaeus</i>	Nectar, larval foodplant, nesting cover
Guelder rose	<i>Viburnum opulus</i>	Nectar, fruit, larval foodplant
Hawthorn (Common)	<i>Crataegus monogyna</i>	Nectar, fruit, larval foodplant, nesting cover
Hawthorn (Midland)	<i>Crataegus laevigata</i>	Nectar, fruit, larval foodplant, nesting cover
Hazel	<i>Corylus avellana</i>	Nuts, larval foodplant, nesting cover, early pollen for bees.
Holly	<i>Ilex aquifolium</i>	Nectar, fruit, larval foodplant, nesting cover
Hornbeam	<i>Carpinus betulus</i>	Year round shelter, roosting nesting & foraging opportunities for birds and small mammals
Oak	<i>Quercus robur/Quercus petraea</i>	Nesting cover, nuts, larval foodplant,
Rowan	<i>Sorbus aucuparia</i>	Fruit, nesting cover
Silver Birch	<i>Betula pendula</i>	Nesting cover
Spindle #	<i>Euonymus europaeus</i>	Nectar, fruits
Wayfaring tree	<i>Viburnum lantana</i>	Nectar, fruit, larval foodplant
Wild Cherry	<i>Prunus avium</i>	Nectar, fruit, nesting cover, larval food plant
Yew#	<i>Taxus baccata</i>	Berries, nesting cover
Wild Service Tree	<i>Sorbus torminalis</i>	Nectar, larval foodplant, fruit
Climbers		
Honeysuckle	<i>Lonicera periclymenum</i>	Nectar, fruit, larval foodplant, nesting cover
Ivy	<i>Hedera helix</i>	Nectar, fruit, larval foodplant, nesting cover
Traveller's joy	<i>Clematis vitalba</i>	Nectar, seeds, larval foodplant

Note:

poisonous

Appendix 7: Plant Species of Known Benefit to Bats

Plant Species	Common Name	Type	Benefit	Soil	Light	Extensive Green Roofs	Living Walls	Rain Gardens	Hedges/Trees	Beds/Borders
<i>Acer campestre</i>	Field Maple	T/S	C	Any	Sun/Shade				Y	
<i>Achillea millefolium</i>	Yarrow	HP	C, F	Well drained	Sun				Y	
<i>Ajuga reptans</i>	Bugle	HP	C, F	Any	Sun/Shade	Y		Y		
<i>Anthyllis vulneraria</i>	Kidney Vetch	HP	F	Well drained	Sun	Y				
<i>Betula pendula</i>	Silver Birch	T	C	Sandy/Acid	Sun				Y	
<i>Cardamine pratensis</i>	Cuckoo-flower	HP	F	Moist	Sun/Shade			Y		Y
<i>Carpinus betulus</i>	Hornbeam	T	C	Clay	Sun				Y	
<i>Centaurea nigra</i>	Common Knapweed	HP	C, F	Dry, not acid	Sun	Y				Y
<i>Clematis vitalba</i>	Old Man's Beard	C	F	Well drained or alkaline	Sun				Y	
<i>Corylus avellana</i>	Hazel	S	C	Any dry	Sun/Shade		Y		Y	
<i>Crataegus monogyna</i>	Hawthorn	S	S, C	Any	Sun/Shade				Y	
<i>Daucus carota</i>	Wild Carrot	Bi	S, C, F	Any	Sun	Y				Y
<i>Dianthus spp.</i>	Pinks	A-Bi	F	Well drained	Sun	Y	Y			Y
<i>Digitalis purpurea</i>	Foxglove	Bi	C	Well drained	Shade/Partial shade				Y	Y
<i>Erica cinerea</i>	Bell Heather	S	F	Sandy	Full sun					Y
<i>Eupatorium</i>	Hemp Agrimony	H	F	Moist	Sun/Shade			Y		Y
<i>Fagus sylvatica</i>	Beech	T	C, R	Well drained alkaline	Sun/Shade				Y	
<i>Fraxinus excelsior</i>	Common Ash	T	C, R	Any	Sun/Shade				Y	

Hedera helix	Common Ivy	C	C, F	Any	Sun/Shade		Y		Y	
Hyacinthoides non-scripta	Bluebell	B	F	Loam	Shade/Partial Shade		Y		Y	Y
Ilex aquifolium	Holly	T	C	Any	Sun/Shade				Y	
Linaria vulgaris	Toadflax	HP	C	Alkaline	Sun	Y				Y
Lonicera periclymenum	Honeysuckle	C	F	Well-drained	Sun/Shade				Y	
Lotus corniculatus	Bird's Foot Trefoil	HP	F	Well-drained, dry	Sun			Y		
Myosotis spp.	Forget-me-not species	A	F	Any	Sun	Y	Y			Y
Origanum vulgare	Marjoram	HP	C	Well-drained, dry	Sun				Y	
Populus alba	White Poplar	T	C	Clay loam	Sun				Y	
Primula veris	Cowslip	HP	F	Well-drained	Sun/Partial Shade				Y	
Primula vulgaris	Primrose	HP	F	Moist	Partial Shade	Y	Y		Y	Y
Prunus avium	Wild Cherry	T	C	Any	Sun				Y	Y
Prunus spinosa	Blackthorn	S	C	Any	Sun/ Partial shade			Y		
Quercus petraea	Sessile Oak	T	C, R	Sandy loam	Sun				Y	
Quercus robur	Common Oak	T	C, R	Clay loam	Sun/Shade			Y		
Rosa canina	Dog Rose	S	C	Any	Sun			Y	Y	Y
Salix spp.	Willow species	S	S, C	Moist	Sun/Shade			Y	Y	
Sambucus nigra	Elder	T	C	Clay loam	Sun				Y	
Saponaria officinalis	Soapwort	HP	F	Any	Sun					Y
Saxifraga oppositifolia	Saxifage	HP	C	Well drained	Sun	Y	Y			Y
Scabiosa columbaria	Small Scabious	HP	F	Well drained/ Alkaline	Sun	Y				Y
Silene dioecia	Red Campion	HP	F	Any	Shade/ Partial shade		Y	Y	Y	Y
Sorbus aucuparia	Rowan	T	C	Well drained	Sun				Y	
Thymus serpyllum	Creeping Thyme	HP/S	F	Well drained/ Dry	Sun	Y	Y			Y
Trifolium spp.	Clover species	H	F	Any	Sun	Y				Y

Valerina spp.	Valerian species	HP	F	Moist	Sun/Partial shade			Y		Y
Verbascum spp.	Mulliens	Bi, HP	C	Well drained	Sun					Y
Viburnum lantana	Wayfaring Tree	S	C	Any	Sun/Shade				Y	Y
Viburnum opulus	Guelder Rose	S	C	Moist	Sun/Shade			Y	Y	
Viola tricolor	Pansy	A	F	Well drained/ Moist		Y	Y			Y

Key

Type	Common Name	Benefit	Soil
HP	Herbaceous perennial	C	Moth Caterpillar food plant
Bi	Biennial	S	Sap sucking insects (e.g. whiteflies)
BiP	Bugle	F	Flowers attract adult moths
T	Tree	E	Good roost potential
S	Shrub		
H	Herb		
A	Annual		
B	Bulb		
C	Creeper/Climber		