



KP Holding Group Ltd

**Land South of School Road, Hurst,
RG10**

Preliminary Ecological Appraisal

November 2025



Harwood Notes

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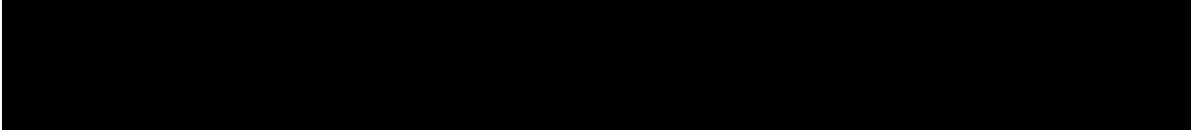
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Field investigations and site assessments, where required, were conducted with the level of detail necessary to meet the objectives of the work. However, due to the temporal nature of ecological data, the findings of this report should not be relied 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 South of School Road, Hurst, RG10 (the Site). The survey was carried out to inform a planning application for the development of 23 new-build dwellings, with associated access, car parking, and landscaping.
2. The Site (c.1.16ha) comprised predominantly other neutral grassland, bordered with hedgerows, individual trees, ruderal vegetation, and scrub. The Site was bounded to the north by School Road, to the east by St Nicholas Church of England Primary School and adjacent residential properties, to the south by Orchard Road, and to the west by Hurst Village Hall and further residential development. In the wider landscape context, the Site lies within the immediate setting of the village of Hurst, and forms part of the transitional interface between the built environment and the surrounding semi-rural landscape.
3. The boundary hedgerows qualify as Habitats of Principal Importance under the NERC Act 2006 and as such should be retained, buffered and enhanced through the development of the site, where feasible. The grassland dominating the site was considered to be of low-moderate value, and consequently the loss of this will require mitigating measures in line with biodiversity net gain.
4. 
5. Recommended further surveys and assessments, to be undertaken at the appropriate time of year include:
 - Presence/absence survey for common reptiles - April to September;
 - Seasonal bat activity and static surveys - April to October;
 - Breeding bird surveys – March – early July;
 - eDNA surveys for Great Crested Newt – March to July; and
 - LEMP
 - If required by the Local Planning Authority, a biodiversity value calculation using the relevant DEFRA metric.
6. Proposals should aim to follow the mitigation hierarchy; avoid, mitigate, compensate and enhance along with local and national policies following all relevant guidance.

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1.0 Introduction

Purpose of this Report

- 1.1** Harwood was commissioned by KP Holding Group Ltd to undertake a Preliminary Ecological Appraisal (PEA) of Land South of School Road, Hurst, RG10 (application boundary given in Appendix 1, hence referred to as 'the Site'). The Site is located at Ordnance Survey Grid Reference SU 79658 73368 and is approximately 1.16 ha in extent.
- 1.2** The survey was carried out to inform a planning application for the development of 23 new-build dwellings, with associated access, car parking, and landscaping.

Ecological Context

- 1.3** The Site comprised predominantly other neutral grassland, bordered with hedgerows, individual trees, ruderal vegetation, and scrub. The Site was bounded to the north by School Road, to the east by St Nicholas Church of England Primary School and adjacent residential properties, to the south by Orchard Road, and to the west by Hurst Village Hall and further residential development. In the wider landscape context, the Site lies within the immediate setting of the village of Hurst, and forms part of the transitional interface between the built environment and the surrounding semi-rural landscape.

Objectives

- 1.4** 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.
- 1.5** 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 (Wokingham Borough);
 - Local or Borough (Hurst); 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 11 June 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 June 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 6 June 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

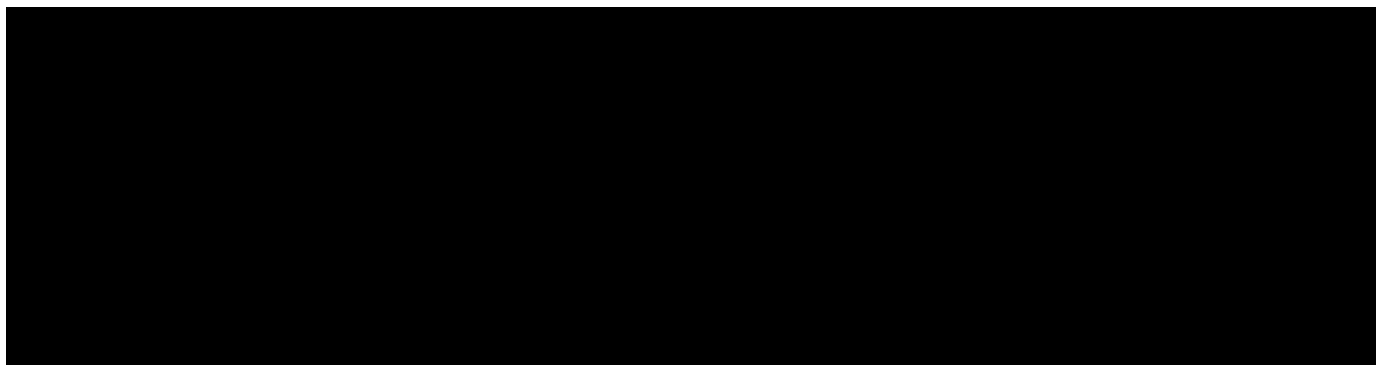
⁷ Google (2024) *Google Earth imagery of Asheridge, UK*, [online]. Available at: <https://earth.google.com>

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.



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.

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.

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.
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 the four common reptile species: Common Lizard (*Zootoca vivipara*), Slow-worm (*Anguis fragilis*), Grass Snake (*Natrix helvetica*), and Adder (*Vipera*

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.

berus). The assessment focused on identifying features that provide key reptile habitats, including basking areas (e.g., south-facing slopes), hibernation sites (e.g., banks, walls, and piles of rotting vegetation), and foraging opportunities (e.g., rough grassland and scrub). 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 habitat preferences and are often found in rank grassland, gardens, and derelict land. Grass Snake, while also utilizing similar habitats, rely more heavily on ponds and wetlands where they prey on amphibians, particularly Common Frog (*Rana temporaria*). Adder typically inhabit rough, open countryside and are often associated with woodland edges, favouring dry heath environments.

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 (SPoI), 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** Where data provided by the client or external sources have been used, it has been assumed to be accurate. Harwood 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.
- 2.26** 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.
- 2.27** It is acknowledged that a single site visit cannot account for the full assemblage of species present, as many exhibit distinct seasonal phenologies. The assessment was undertaken in June 2025, a period corresponding with the peak growing season for vascular plants. Consequently, the survey timing is considered optimal for providing a robust botanical baseline, and this is not viewed as a significant limitation.

3.0 Results

Designated Sites

Statutory Designated Sites

European Designated Sites

- 3.1 Seven European designated sites were identified within 22 km 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 **International** importance.

Table 2: European Designated Sites within 22 km of the Site.
Key: SAC = Special Area of Conservation; SPA = Special Protection Area.

Site Name	Approximate Distance and Direction	Reason for Designation
Internationally Designated Sites		
Thames Basin Heaths SPA	9.3 km southeast	Species: Dartford Warbler (<i>Sylvia undata</i>), Nightjar (<i>Caprimulgus europaeus</i>), and Woodlark (<i>Lulla arborea</i>)
Windsor Forest & Great Park SAC	11.8 km east	Habitats: Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains, Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion robur-petraeae</i> or <i>Ilici-Fagenion</i>) Species: Violet Click Beetle (<i>Limoniscus violaceus</i>)
Chilterns Beechwoods SAC	12.0 km northwest	Habitats: <i>Asperulo-Fagetum</i> beech forests, semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (orchid rich) Species: Stag Beetle (<i>Lucanus cervus</i>)
Thursley, Ash, Pirbright & Chobham SAC	17.3 km southeast	Habitats: Northern Atlantic wet heaths with <i>Erica tetralix</i> , European dry heaths, Depressions on peat substrates of the <i>Rhynchosporion</i>
Hartslock Wood SAC	18.0 km northwest	Habitats: Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (orchid rich), Yew (<i>Taxus baccata</i>) woodland
Burnham Beeches SAC	18.3 km northeast	Habitats: Atlantic acidophilous Beech forest
South West London Waterbodies SPA Ramsar	20.3 km east	Species: Gadwall (<i>Anas strepera</i>) and Shoveler (<i>Anas clypeata</i>)

Nationally Designated Sites

- 3.2 Seven nationally designated sites were identified within a 5 km radius of the Site boundary. These are listed in Table 3 in order of proximity to the Site, along with brief descriptions. All six designations are considered to be of **National** importance.

Table 3: Statutory Designated Sites within 5 km of the Site.

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

Site Name	Approximate Distance and Direction	Reason for Designation
Nationally Designated Sites		
Lodge Wood & Sandford Mill SSSI	0.9 km west	Habitats: Lowland broadleaved, mixed, and Yew (<i>Taxus baccata</i>) woodland
Lavells Lake (Dinton Pastures) LNR	1.1 km west	Species: Migratory and resident birds
Alder Moors LNR	1.9 km northwest	Habitats: Alder (<i>Alnus glutinosa</i>) dominated ancient woodland
Holt Copse & Joel Park LNR	3.9 km south	Habitats: Lowland mixed deciduous woodland and ancient semi-natural woodland Species: Common Noctule (<i>Nyctalus noctule</i>)
Highwood LNR	4.2 km west	Habitats: Mixed lowland woodland and heathland Species: Kingfisher (<i>Alcedo atthis</i>), Goosander (<i>Mergus merganser</i>), Pochard (<i>Aythya ferina</i>), Shoveler (<i>Spatula clypeata</i>), Cormorant (<i>Phalacrocorax carbo</i>), Heron (<i>Ardea cinerea</i>), Grey Wagtail (<i>Motacilla cinerea</i>), Waxwing (<i>Bombycilla garrulus</i>), Treecreeper (<i>Certhia familiaris</i>), and Greater Spotted Woodpecker (<i>Dendrocopos major</i>)
Ali's Pond LNR	4.23 km northwest	Habitats: Pond Species: Grea Crested Newt, Harvest Mouse (<i>Micromys minutus</i>), Stag Beetle, Song Thrush (<i>Turdus philomelos</i>), Pipistrelle (<i>Pipistrellus sp.</i>), Ragged-robin (<i>Lychnis flos-cuculi</i>), 18 species of dragonfly, over 40 species of aquatic/wetland plants
Maiden Eriegh Lakes LNR	4.6 km southwest	Habitats: Lowland mixed deciduous woodland, ancient semi natural woodland, and eutrophic open water

- 3.3 The Site intersects the SSSI Impact Risk Zone for Lodge Wood & Sandford Mill SSSI and Broadmoor to Bagshot Woods and Heaths SSSI.

Non-Statutory Designated Sites

- 3.4 There were five non-statutory designated sites within 2 km of the site. The closest was adjacent to the eastern boundary of the Site. LWSs are considered important at a **County Level**.

Habitat Survey

- 3.5 The habitats within the Site were:

- g3c Other neutral grassland;
- g3c-32 Scattered Trees;
- g3c-81 Ruderal/ephemeral vegetation;
- h2 Hedgerows; and
- h3d Bramble scrub

- 3.6 A map of the habitats on-site is provided within Appendix 3. Plant species recorded per habitat type are tabled in Appendix 4. Site photographs are illustrated in Appendix 5.

g3c – Other neutral grassland

- 3.7 The majority of the Site comprised unmanaged grassland, which was at a uniform long sward. Dominant grass species included Yorkshire Fog (*Holcus lanatus*), False-Oat Grass (*Arrhenatherum elatius*), Meadow Foxtail (*Alopercurus pratensis*), and Rough Meadow-Grass (*Poa trivialis*). Sweet Vernal Grass (*Anthoxanthum odoratum*) and Cock's Foot (*Dactylis glomerata*) were frequent, though less constant throughout the sward. Perennial Ryegrass (*Lolium perenne*) was rarely occurring.

Meadow Buttercup (*Ranunculus acris*) was the most dominant forb throughout the sward, with abundant Yarrow (*Achillea millefolium*), frequent Sorrel (*Rumex acetosa*), Birds-Foot Trefoil (*Lotus corniculatus*) and Common Knapweed (*Centaurea nigra*). Creeping Buttercup (*Ranunculus repens*) was rarely occurring. The character of the grassland parcel included some variation across its extent, but in general comprised c.70% grasses and 30% forbs.

- 3.8 Cover of forbs was over 20%, cover of rye grasses and White Clover (*Trifolium repens*) totalled less than 30%, and more than one species of grass not typically associated with agriculture production was recorded as at least abundant. Given this, g3c other neutral grassland was considered to be the most appropriate habitat classification.

g3c 32 - Scattered Trees

- 3.9 Numerous individual trees were present within and along the Site boundaries. Species included European Ash (*Fraxinus excelsior*), European Oak (*Quercus robur*), and Sycamore (*Acer pseudoplatanus*).

g3c 81 - Ruderal/ephemeral vegetation

- 3.10 A parcel of tall ruderal vegetation was present in the westernmost corner of the Site. Species were limited to Common Nettle (*Urtica dioica*) and Common Thistle (*Cirsium vulgare*).

h2 – Hedgerows

- 3.11 There were three hedgerows bordering the Site. These included the following hedgerow types:

- h2a5 species-rich native hedgerow
- H2a5-11 species-rich native hedgerow with trees
- H2a6 native hedgerow

- 3.12 Species frequently noted within the hedgerows included Hazel (*Corylus avellana*), Dogwood (*Cornus sanguinea*), and Hawthorn (*Crataegus monogyna*). The hedgerow with trees had mature Field Maple (*Acer campestre*) trees along its length.

- 3.13 All of the hedgerows comprised of 80%+ native woody species and therefore qualified as Habitats of Principal Importance (HoPI) under the NERC Act 2006. The species-rich hedgerows have the potential to qualify as Important hedgerows under the Hedgerow Regulations 1997.

h3d - Bramble scrub

- 3.14 A strip of Bramble (*Rubus fruticosus* agg.) dominated scrub was present along the southern boundary of the site.

Priority Habitats

- 3.15 The hedgerows on site are considered to qualify as the NERC Act HoPI: "Hedgerow", as they comprise at least 80% native woody species. Within a 1 km radius of the site, the following Priority Habitats were identified:

- Seventeen parcels of Deciduous Woodland
- One parcel of Ancient Woodland

- Two parcels of Wood-Pasture and Parkland
- Five parcels of Traditional Orchard

3.16 The closest parcel was a block of Deciduous Woodland, located approximately 5 metres northeast of the site, and is associated with a LWS designation.

Summary

3.17 The majority of the habitats within the site were considered to be of moderate ecological value, though common and widespread within the local landscape. Habitats on site were considered to have potential to support protected species, including those of conservation concern. However, the hedgerows (considered priority habitat under the NERC Act (2006)) are considered of **Local** importance. The neutral grassland and small areas of scrub and ruderal vegetation are considered to be of **Site** importance. Confidence in this assessment is **high**.

Protected and Notable Species

Badger

3.18 The data search returned five records of badgers within 2 km of the Site. The closest record was 0.13 km north-west, from 2021. The most recent record was in 2023, 1.6 km south-east, and associated with a rural pocket of woodland.

3.19 No setts or other signs of Badger were observed within the Site. The habitats on-site such as grassland and fruiting trees were considered to provide suitable foraging and dispersal opportunities for individuals that may be present in the wider landscape. Additionally, the hedgerows offer some suitable sett-building habitat although this was limited by the generally flat topography and narrow width.

3.20 Within the wider environment, mature hedgerows and pockets of woodland are likely to offer more suitable sett creation and foraging resources for badgers. The Site is considered to be of up to **Site** importance for badgers. Confidence in this assessment is **high**.

Bats

3.21 There were records of seven 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 to closest record (km)
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	6	2021	0.4
Brown Long-Eared Bat (<i>Plecotus auritus</i>)	2	2021	0.8
Daubenton's Bat (<i>Myotis daubentonii</i>)	1	2021	0.8
Natterer's Bat (<i>Myotis nattereri</i>)	1	2020	0.4
Noctule (<i>Nyctalus noctule</i>)	3	2021	0.8
Serotine (<i>Eptesicus serotinus</i>)	1	2016	1.6
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	6	2021	0.4

3.22 Six EPS licences for bats were identified within 2 km of the Site, the closest was c.0.2km away relating to destruction of a Common Pipistrelle and Brown Long-Eared Bat resting place, issued in 2012.

Roosting Bats

- 3.23 The trees within the site comprised a diverse range of native species, primarily at semi-mature to mature growth stages, and were predominantly located along the site boundaries. Following assessment, all trees were considered to have negligible suitability for roosting bats, due to the absence of potential roost features (PRFs) such as cavities, splits, or loose bark.
- 3.24 The Site is valued as being of up to **Site** importance for roosting bats. Confidence in this assessment is **high**.

Foraging/Commuting Bats

- 3.25 In general, the site was considered to offer opportunities for foraging and commuting bats; the hedgerows, trees and scrub on-site reinforced flightlines through the village of Hurst, and in conjunction with the long sward grassland was considered to provide a foraging resource. The habitats on site were considered to be suitable though common/ubiquitous within the wider landscape, hence the Site is considered to be of **Site** importance for foraging/commuting bats. Confidence in this assessment is **moderate**.

Birds

- 3.26 The data search returned records for 170 bird species within 2 km of the Site. Among these, species listed under Schedule 1 of the Wildlife and Countryside Act 1981 included Kingfisher (*Alcedo atthis*), Cetti's Warbler (*Cettia cetti*), Redwing (*Turdus iliacus*), and Green Sandpiper (*Tringa ochropus*). Numerous red and amber-listed Birds of Conservation Concern (BoCC)¹⁵ were recorded within 2km, including Lapwing (*Chloris chloris*), Greenfinch (*Vanellus vanellus*), and Starling (*Sturnus vulgaris*).
- 3.27 The Schedule 1 species recorded in the vicinity are considered unlikely to nest on the Site (Kingfisher prefers rivers with steep banks, Cetti's Warbler requires reedbeds and proximity to water, Redwing is typically a winter visitor and would not breed in the UK, and Green Sandpiper is generally associated with marshes, lakes and rivers).
- 3.28 The habitats on site, although common and widespread within the local landscape (long sward grassland, scattered trees, and scrub), were considered to provide suitable breeding, foraging and nesting habitat for a variety of bird species within the local environment. As such, the Site is considered to be of **Site** importance for breeding birds. Confidence in this assessment is **moderate**.

Plants

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

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).

Table 5: Records of Schedule 8 protected plant species within 2 km of the Site.

Species	Records	Date of most recent record	Distance to closest record (km)
Bluebell (<i>Hyacinthoides non-scripta</i>)	9	2017	0.9
Summer Snowflake (<i>Leucojum aestivum</i>)	41	2012	0.9
Mistletoe (<i>Viscum album</i>)	8	2011	1.5
Pyramidal Orchid (<i>Anacamptis pyramidalis</i>)	1	2012	1.2

3.30 No protected species were observed on site during the UKHab survey. It is noted that Bluebell typically flowers during April-May and as such would not have been flowering during the site visit. However, the habitats present on-site do not suggest the likelihood of Bluebell (lack of woodland), or other scarce or notable plant species occurring within the potential development footprint. Due to the relatively common habitats on site, it is considered unlikely that protected flora was present on the site. The site is therefore currently considered to be of **Site** importance for plants; confidence in this assessment is **high**.

3.31 There were records of seven Schedule 9 invasive plant species within 2 km of the Site. Records are summarised in Table 6. Although not listed on Schedule 9, Buddleia (*Buddleia davidii*) has been included given its propensity to spread quickly.

Table 6: Records of Schedule 8 protected plant species within 2 km of the Site.

Species	Records	Date of most recent record	Distance to closest record (km)
Buddleja (<i>Buddleia davidii</i>)	3	2014	1.5
Nuttall's Waterweed (<i>Elodea nuttallii</i>)	9	2012	1.3
Himalayan Balsam (<i>Impatiens glandulifera</i>)	15	2022	1.1
Rhododendron (<i>Rhododendron ponticum</i>)	2	2014	1.7
Canadian Goldenrod (<i>Solidago canadensis</i>)	1	2014	0.3

3.32 No invasive species were observed on site during the UKHab survey. Consequently, invasive species are not considered further in this assessment.

GCN

3.33 There were nine records of GCN identified within 2 km of the Site. The closest was c.140m northeast of the Site, from 2023, and the most recent was from 2024, 1.28 km southwest. There were no EPS licences for GCN within 2 km of the Site.

3.34 There were no aquatic habitats on-site. Terrestrial habitats (grassland, hedgerows, scrub) were considered to provide sheltering, commuting, and foraging opportunities. No suitable hibernation refugia such as include crevices in the ground or animal burrows were identified on-site.

3.35 Ordnance Survey maps revealed nine waterbodies within 250m of the site: five drains and four ponds (Appendix 8). All drains were dry at the time of the survey, and all ponds were located on private land and could not be assessed for their GCN potential and HSI.

3.36 The Site is considered to be of **Site** importance for GCN. Confidence in this assessment is **high**.

Hazel Dormouse

3.37 Four records of Hazel Dormouse were returned within 10 km. The closest record was located 6.52 km north-west, from 2020. The most recent record was from 2022, 9.28 km north-west.

- 3.38 Habitat on-site that could be utilised for dormice was limited to the boundary hedgerows and scrub, which provide foraging, commuting, and nesting resources. The hedgerows were however considered to be sub-optimal for this species; the presence of roads and development in all directions from the site limited connectivity to the wider landscape (including larger areas of woodland). Due to this, it is considered that if Hazel Dormouse are present in the wider area, they may occasionally encroach onto the Site.
- 3.39 As such the site was considered to be of **Site** value for Hazel Dormouse, with confidence in this assessment as **high**.

Notable Invertebrates

- 3.40 There were records of several invertebrate species of conservation concern within 2 km of the site, including Stag Beetle *Lucanus cervus*.
- 3.41 Suitable invertebrate habitat on site (grassland, hedgerows, trees, and scrub) provides opportunities for a range of invertebrate species.
- 3.42 The Site and wider landscape contained loamy soil, which is not considered suitable for Roman Snail *Helix pomatia*. Furthermore, there was no decaying wood present on-site for Stag Beetle, which is required for their entire lifecycle¹⁶. However, if present in the wider area, Stag Beetle may still utilise the foraging resources on-site.
- 3.43 Given the size of the site and the suitable habitats as well as the lack of significant microhabitats, the site is unlikely to support a population of notable invertebrates. The site is consequently considered to be of **Site** importance for notable invertebrates, confidence in this assessment is **high**.

Reptiles

- 3.44 4 Grass Snake (*Natrix helvetica*) records were identified within 2 km of the site. The closest was c.106 m north, from 2021, and the most recent was from 2022, 1.45 km southwest.
- 3.45 The habitats present on-site—including grassland, hedgerows, and scrub—were assessed as suitable for reptiles, offering opportunities for foraging, basking, and shelter. No suitable refugia were identified during the survey. The habitats present are common within the local area and well represented in the wider landscape. Via its boundary habitats, the site is connected to nearby areas of suitable reptile habitat, including additional grassland, woodland, and water bodies. As such, the site is considered to have the potential to support common reptile species. Given the ubiquity of such habitats locally, the site is assessed as being of **Site** level importance for reptiles. As absence has not been confirmed, confidence in this assessment is considered **moderate**.

Riparian species

- 3.46 There were no records of Otter, Water Vole, or White-clawed Crayfish within 2 km. Suitable aquatic habitat such as rivers/wet ditches/other watercourses were not recorded for c.0.9 km from the site, and habitats on site were not considered suitable for riparian species.

¹⁶ Baker, A. (2019). *The Stag Beetle: Conservation and Habitat Management*. London: Wildlife Trusts.

3.47 Due to the lack of records and suitable habitat on-site or in the nearby vicinity, Otter, Water Vole and White-clawed Crayfish are considered absent from the Site and not considered further in this assessment.

Other Notable Species

3.48 There were 80 records of European Hedgehog, with the closest and most recent in being 0.04 km north-west of the Site in 2011, and the most recent being 0.2 km north in 2024. There were three records of Common Toad, the closest being 1.2 km north in 2020, and the most recent being in 1.6 km away in 2024. There was one record of Brown Hare, 1.4 km west in 2015. Records of European Polecat or Harvest Mouse were not returned.

3.49 The long grassland, hedgerows, and scrub on-site were considered to provide suitable sheltering, foraging, and commuting habitat for European Hedgehog, Common Toad, and Harvest Mouse. The site did not contain habitats suitable for European Polecat or Brown Hare, such as woodland edges or arable/arable field margins. The Site itself does not contain sufficient habitat to support a population of European Hedgehog, Common Toad, and Harvest Mouse, although it is considered that they may occasionally disperse onto Site. As such, the Site is considered to have up to **Site** level importance for these species. Confidence in this assessment is **high**.

Summary

3.50 A summary evaluation of Site features is provided in Table 7.

Table 7: Summary Evaluation of Features.

Feature	Summary Description	Importance	Confidence
Designated Sites	Within IRZ for Lodge Wood & Sandford Mill SSSI and Broadmoor to Bagshot Woods and Heaths SSSI 8 LWS within 2 km	County to National	High
Habitats	Other neutral grassland, individual trees, ruderal vegetation, scrub, and hedgerows. Hedgerows qualify as habitat of principal importance, and some are likely to qualify as 'important' hedgerows under the Hedgerow Regulations 1997	Site to Local	High
Rare and notable plants	Common and widespread grassland species present. Notable, protected, and invasive species considered unlikely to be present	Site	High
Bats – foraging/commuting	Habitats on site (hedgerows) provide 'moderate' suitability for foraging/commuting bats.	Site	Moderate
Birds	Potential for common and some protected/notable species to utilise the site for nesting	Site	Moderate
Great Crested Newt	Records within 2 km, suitable terrestrial habitat on-site, ponds present within 250 m.	Site	Moderate
Hazel Dormouse	Suitable boundary habitats with limited connectivity to suitable habitat in the local area.	Site	High
Invertebrates	Suitable habitat for common and widespread invertebrate species; unlikely to support a notable assemblage.	Site	High
Riparian species	Habitat on and in the vicinity of site considered unsuitable for riparian species.	Negligible	High
Reptiles	Suitable foraging, dispersal, and sheltering habitat on site	Site	Moderate
Notable species	Hedgerows, scrub, and grassland are suitable habitat for European hedgehog and Common Toad, and Harvest Mouse.	Site	High

4.0 Discussion

Description of Proposals

- 4.1 The proposed development for the Site comprises the construction of 23 new residential dwellings, including associated infrastructure such as dual access points from School Road, on-site car parking, and comprehensive landscaping. Detailed plans outlining the layout and landscaping have been prepared. The current design seeks to retain the majority of existing boundary habitats, while incorporating new tree and hedgerow planting. However, four existing trees and a significant portion of the grassland habitat will be removed to facilitate the development.

Designated Sites

Statutory Sites

- 4.2 There were seven European designated sites were identified within 22 km of the site boundary. The closest was Thames Basin Heaths (SPA), located approximately 9.3 km from the Site. This SPA is designated for its populations of ground-nesting birds, particularly Nightjar (*Caprimulgus europaeus*), Woodlark (*Lullula arborea*), and Dartford Warbler (*Sylvia undata*), which are sensitive to recreational pressure and habitat degradation. However, the Site does not provide suitable heathland habitat nor lies within the 5 km zone of influence typically used to screen for recreational pressure impacts. Given the distance involved, the absence of supporting habitat or hydrological connectivity, and the modest scale of the proposed residential development, it is considered highly unlikely that the project would give rise to any significant direct or indirect effects on the qualifying features of this, or any other, SPA. An Appropriate Assessment is therefore not required.
- 4.3 The site lies within the SSSI Impact Risk Zones (IRZs) for Lodge Wood & Sandford Mill SSSI and potentially Broadmoor to Bagshot Woods and Heaths SSSI. However, as the proposed development does not meet the threshold for 'residential development of 100 units or more', it falls outside the categories of development likely to trigger adverse effects as defined in the IRZs. Therefore, based on current guidance, the development is unlikely to result in significant impacts on nearby terrestrial SSSIs, or on the SACs, SPAs, or Ramsar sites associated with them.
- 4.4 It is predicted that the proposals would result in a net **neutral** effect on statutory designated sites.

Non-Statutory Sites

- 4.5 Five LWSs are located within 2 km of the Site. The nearest is adjacent to the eastern boundary, while Dinton Pastures Country Park LWS lies approximately 0.8 km to the west. Other LWSs are present in the wider landscape but are considered too distant to be impacted by the proposed development.
- 4.6 The LWS adjacent to the eastern boundary is not publicly accessible and therefore unlikely to experience any recreational pressure from future residents. However, construction activities may result in indirect impacts such as dust, pollution, or physical disturbance. The following mitigation measures are recommended to avoid such impacts:
- Erection of protective fencing along the eastern boundary;
 - Implementation of best-practice pollution prevention measures, including secure material storage away from the LWS;

- Regular removal of litter to prevent encroachment of waste into sensitive areas; and
- Use of sensitive lighting strategies along the PRoW and site boundary.

- 4.7** The existing north–south PRoW within the Site runs along the eastern boundary and will be retained. To protect adjacent habitats, a new buffer comprising native tree planting is proposed on both sides of the path. This will reinforce habitat separation and visual screening, contributing to the avoidance of disturbance to the nearby LWS.
- 4.8** While Dinton Pastures LWS is beyond the range of likely indirect impacts (e.g. pollution or noise), it is publicly accessible and could be subject to minor recreational pressure from future residents. However, the scale of development is modest, comprising only 23 new dwellings, and the site includes on-site provision of informal green space, reducing the likelihood of increased use of off-site greenspace. Furthermore, Dinton Pastures is an established public amenity that already encourages a high volume of visitors and is managed accordingly.
- 4.9** The inclusion of high-quality, semi-natural open space within the development, combined with existing and improved PRoW links, is expected to divert recreational pressure away from nearby designated sites. Where footfall does occur, it will be largely restricted to existing PRoW within those sites, which already serve as focal points for public access. This will help protect more sensitive habitats, such as lowland meadow, from disturbance.
- 4.10** With the proposed mitigation measures in place, and given the scale and nature of the development, significant impacts to non-statutory designated sites are not anticipated. Provision of on-site green infrastructure and reinforcement of PRoW buffers will further reduce the risk of adverse effects.
- 4.11** The site also lies within a designated B-line. Although no precise mitigation is required in relation to B lines, emphasis should be put on incorporating plants offering a value to wildlife, particularly invertebrates, within the soft-landscaping scheme. A non-exhaustive list of such plants is provided in Appendix 7 & 8.

Habitats

- 4.12** 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.
- 4.13** The site supports habitats of ecological value, including mature trees and hedgerows. Under the current development proposals, the majority of these features will be retained. However, majority of the grassland habitat will be lost, along with trees T29, T32, T35, T36, and T37 to facilitate vehicular access along the northern boundary. In addition, small areas of tall ruderal vegetation, and grassland will also be cleared to facilitate the development.
- 4.14** 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.
- 4.15** Tree planting is proposed throughout the site, including along the existing PRoW in the east of the

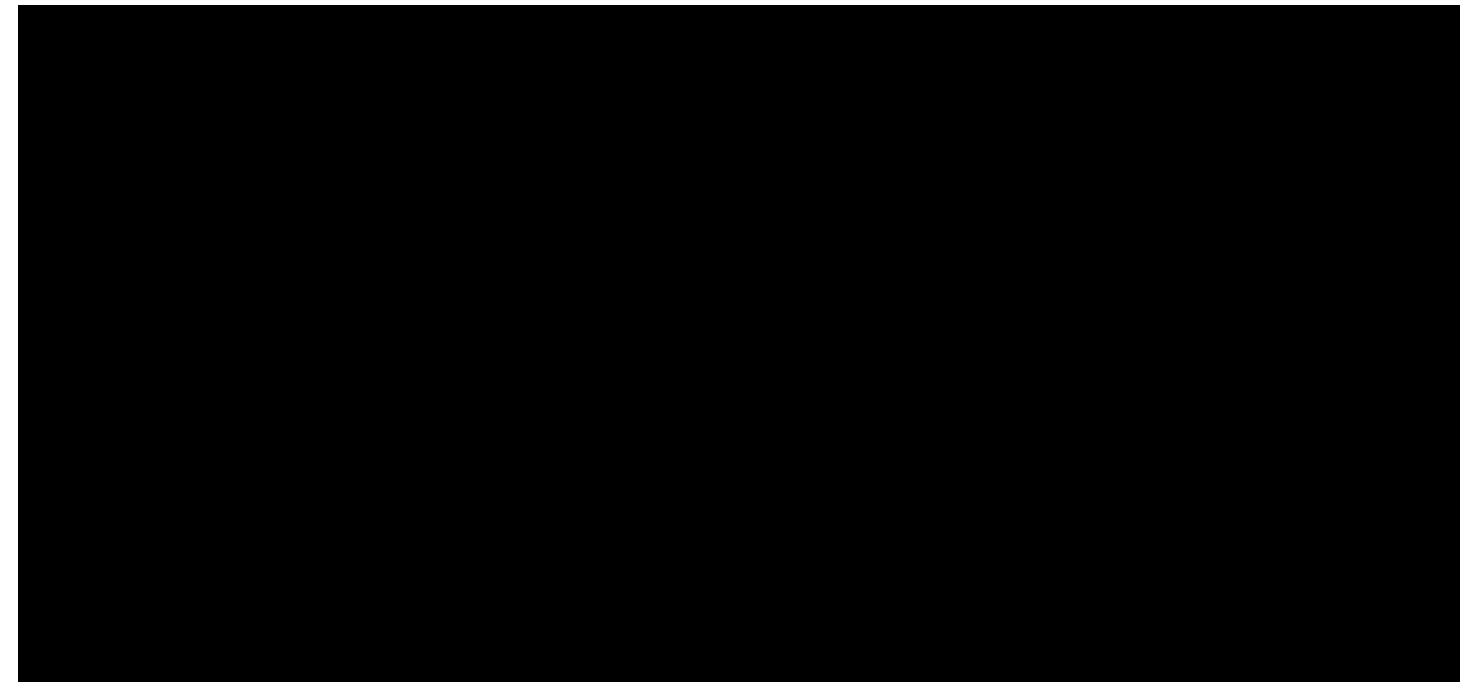
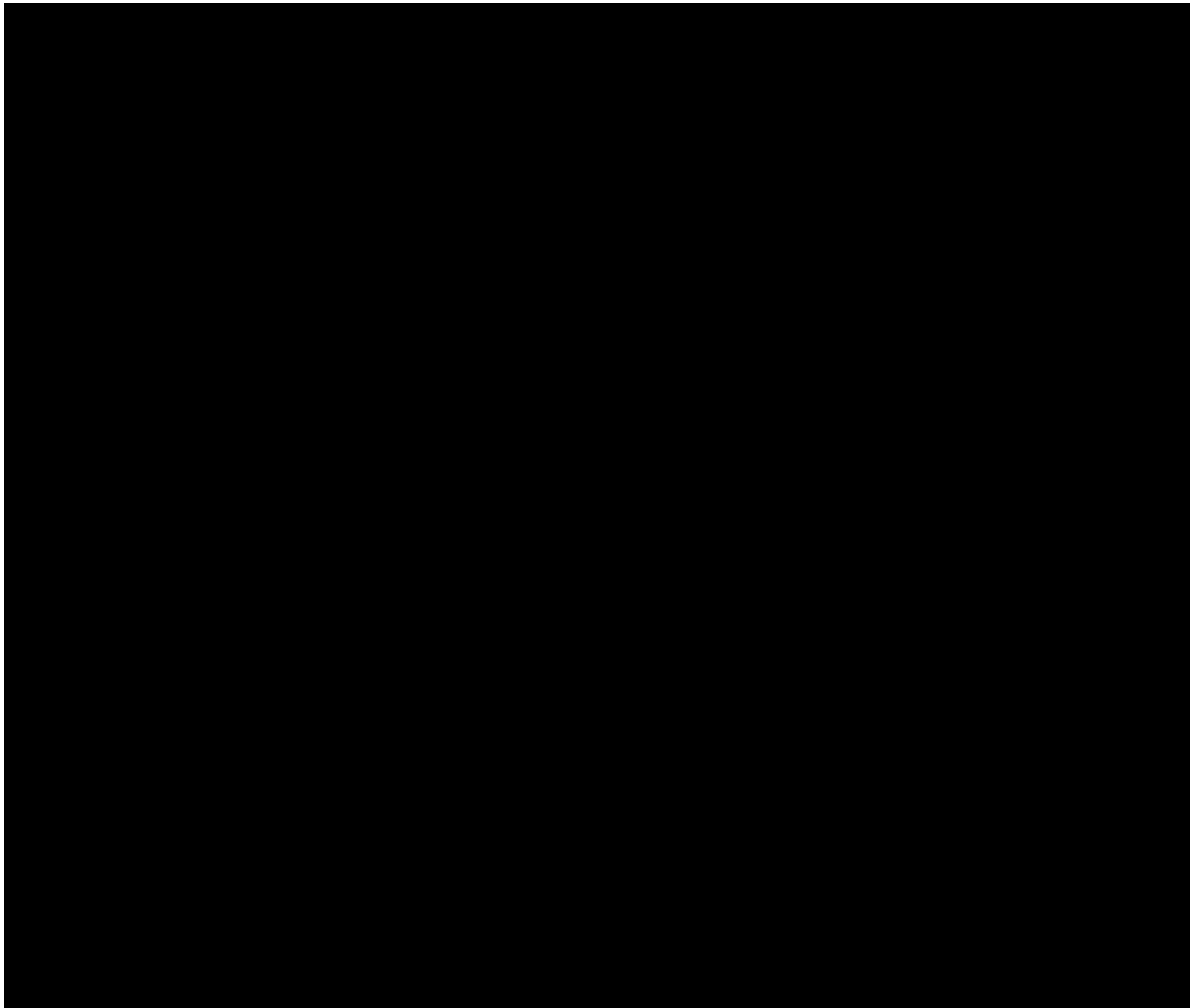
site. It is recommended that this includes areas of long grassland to provide structural and botanical diversity, and native trees/shrub planting.

- 4.16** All planting should comprise of native species; a suitable and appropriate species planting list is provided in Appendix 7 and 8, although examples include rowan (*Sorbus sp.*), Cherry (*Prunus sp.*), Field Maple, Beech (*Fagus sylvatica*), Silver Birch (*Betula pendula*) and Hornbeam (*Carpinus betulus*). Areas of Public Open Space (POS) should be sown with wildflower meadow mix, such as Emorsgate EM10 tussock mixture along the retained hedgerows, Emorsgate EM1/EM2 general purpose meadow mixture within lower foot traffic areas of the main POS, and EL1 flowering lawn mixture in core amenity areas of POS that will be subject to regular mowing.
- 4.17** To minimise impacts of habitat loss, the masterplan should seek to retain all existing boundary/hedgerow 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 these features, 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' through the site.
- 4.18** The inclusion of native planting and habitat creation within the development plan, together with retaining and enhancing boundary habitats where possible, buffering works from retained habitats and managing the retained hedgerows on site through rotational cutting has potential to result in a residual positive impact on habitats.
- 4.19** Where impacts to habitats cannot be avoided, compensatory habitat creation or enhancement may be required by the Local Planning Authority (LPA) to ensure that biodiversity losses are appropriately addressed. Depending on the planning conditions and policy requirements applicable to this application, the LPA may request a biodiversity value calculation using the relevant DEFRA biodiversity metric to quantify habitat change.
- 4.20** If a biodiversity value calculation or Biodiversity Gain Plan is required by the LPA, this will be informed by the data collected during the PEA and habitat condition assessment. Any such assessment would need to be updated if the site layout or habitat proposals change during the planning process.

Protected and Notable Species

Badger

- 4.21** Badgers are legally protected under the Protection of Badgers Act (1992).



Bats

Roosting

- 4.28** 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.
- 4.29** No trees within or adjacent to the Site were found to offer suitability for roosting bats.
- 4.30** The proposed development presents an opportunity to enhance the site for roosting bats through the incorporation of artificial roost features on both retained trees and new buildings. Integrated bat boxes (e.g. Habibat or similar) should be built into the fabric of new dwellings, 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 a minimum height of 3m with an unobstructed flight path and a mix of orientations, including south-facing where possible.
- 4.31** Where trees are managed or removed, there is potential to enhance roosting provision through habitat creation techniques, such as deliberately cutting crevices or translocating suitable roost features from felled trees, subject to arboricultural advice and ecological oversight.
- 4.32** Any new external lighting should be designed to avoid direct illumination of retained and newly planted hedgerows, trees, and other bat-sensitive features. A sensitive lighting strategy should be implemented during both construction and occupation phases to prevent disturbance to bats, particularly along foraging and commuting corridors.
- 4.33** 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).
- 4.34** 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.
- 4.35** 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

- 4.36** The proposed development will result in the loss of a substantial area of other neutral grassland and the removal of five trees, four of which are located along the site boundary. While the grassland provides some value for foraging bats, it is not considered critical to the local bat assemblage when compared to the more significant linear features present on site. Boundary hedgerows and the majority of mature trees, which are likely to serve as key foraging and commuting corridors, will be retained.
- 4.37** Despite the retention of these features, the extent of grassland loss and tree removal may still alter overall habitat quality and availability for bats. The site was considered to be of moderate value for foraging/commuting bats as per Table 1 and as such, as per best practice guidance activity surveys are recommended. Moderate suitability sites require one night-time activity survey per season (April/May, June/July/August, and September/October – a total of three surveys). Further surveys may be required if these visits reveal activity of interest that requires more observation on site. In addition, automated static bat detectors should be put out for a minimum of five consecutive nights per month, from April to October in appropriate weather conditions for bats. These surveys will establish a baseline for the site and drive any necessary mitigation measures.
- 4.38** To minimise the potential impacts on foraging and commuting bats, the retained hedgerows and trees will be supported by new planting of native trees and hedgerows as part of the proposed landscape scheme. A sensitive lighting strategy will be developed to prevent artificial light spill onto retained linear features, thereby maintaining functional dark corridors across the site. The lighting design will be based on current best practice to reduce disturbance and barrier effects. Timing of vegetation clearance will also be managed to avoid peak bat activity periods, where feasible.
- 4.39** In addition to mitigating adverse impacts, there are opportunities to enhance the site's value for bats. Retained hedgerows should be bolstered with supplementary planting using a diverse mix of native species, and managed under a long-term, ecologically sensitive regime delivered through a Landscape and Ecological Management Plan (LEMP). The landscape scheme should also incorporate nectar-rich, night-scented, and native tree and shrub species to increase invertebrate prey availability and improve foraging potential. Suggested species are listed in Appendices 7 and 8.
- 4.40** With the implementation of the above mitigation, compensation, and enhancement measures, and subject to the findings of the recommended activity surveys, the residual impact on foraging and commuting bats is expected to be neutral.

Birds

- 4.41** 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.
- 4.42** The site predominantly comprises other neutral grassland of uniform sward height (typically above 7 cm), with boundary hedgerows, mature trees, and limited areas of tall ruderal vegetation and scrub, and the site is considered to provide breeding, nesting, foraging, and commuting opportunities for birds.

- 4.43** Five trees are proposed for removal, four of which are located along site boundaries. These losses are considered minor relative to the wider network of retained trees and hedgerows, which will be supplemented through new native planting as part of the site's landscape strategy.
- 4.44** The development will, however, result in the loss of the majority of the neutral grassland and small areas of ruderal and scrub vegetation. Without appropriate mitigation, these losses may lead to the destruction of active nests, loss of foraging and nesting habitat, and the potential for injury or mortality during vegetation clearance. Construction activities may also result in temporary disturbance, degrading the functional value of retained boundary habitats. These effects have the potential to reduce breeding success and disrupt habitat connectivity for local bird populations.
- 4.45** Breeding bird surveys are recommended to assess the site for its importance for breeding birds and to inform appropriate mitigation. It is standard guidance for six bird survey visits to be undertaken as part of a proportional and robust breeding bird survey, to be undertaken between late March and early July. These surveys will drive the requirements for mitigation measures. Wintering bird surveys are not considered necessary due to the limited suitability of the site for significant overwintering assemblages.
- 4.46** Vegetation clearance involving trees, hedgerows, scrub, or ruderal vegetation should be undertaken outside the core nesting season (March to August inclusive) wherever possible. If clearance during this period is unavoidable, a pre-clearance nesting bird check by a suitably qualified ecologist must be completed within 24 hours of works. Any active nests identified must be retained in situ with an appropriate buffer until nesting has concluded and fledglings have dispersed.
- 4.47** Tree losses will be offset through native tree and hedgerow planting designed to reinforce existing habitat corridors. Hedgerows should be managed under a long-term sensitive regime to encourage dense, bushy growth and improve their value for nesting and commuting birds.
- 4.48** To enhance on-site nesting opportunities, integral bird boxes (e.g. for Swift (*Apus apus*) and House Sparrow (*Passer domesticus*)) 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.
- 4.49** Supplementary planting of native fruit- and seed-bearing shrubs, as well as nectar-rich and night-scented plants, will support invertebrate prey populations and ensure year-round foraging opportunities. Management of grass margins and other retained habitat should be sensitive to the needs of ground-foraging species, contributing to overall habitat enhancement.
- 4.50** With the implementation of the above mitigation and enhancement measures, including appropriate survey effort, habitat protection, planting, and provision of nesting features, the residual effect on the local bird assemblage is expected to be neutral to minor positive.

Great Crested Newt

- 4.51** The proposed development will result in the loss of a significant area of suitable terrestrial habitat for great crested newt, primarily comprising grassland that may support foraging, commuting, and sheltering opportunities. If GCN are present within the site, the works may lead to the killing or injury of individuals, disturbance during their terrestrial phase, and the destruction of resting places or places of shelter.

- 4.52** To determine the presence or likely absence of GCN, it is recommended that environmental DNA (eDNA) surveys are undertaken on all ponds within 250 m of the site boundary that are suitable and accessible for survey. The results of these surveys will determine whether mitigation measures and licensing are required. Should GCN be confirmed as present, it is highly likely that a licence from Natural England will be necessary prior to any works commencing. Two licensing pathways may be considered: the traditional site-based licensing route or entry into the NatureSpace Wokingham District Level Licensing (DLL) scheme. Where DLL is pursued, compensation is typically delivered through a financial contribution to support the strategic creation and management of ponds and terrestrial habitat off-site.
- 4.53** Regardless of licensing approach, on-site mitigation should seek to retain and enhance habitat for GCN wherever possible. Retained hedgerows and areas of grassland should be improved through supplementary planting with native species and managed under a long-term, ecologically sensitive plan. To provide additional sheltering and hibernation opportunities, log-pile hibernacula should be created in suitable locations and buffered by rough grassland. Design and construction of hibernacula should follow guidance outlined in Amphibian and Reptile Groups of the United Kingdom (ARG UK) Advice Note 11.

Hazel Dormouse

- 4.54** Habitat within the site that may be utilised by Hazel Dormouse is limited to the boundary hedgerows and patches of scrub, which offer potential for foraging, nesting, and movement. However, these features are considered sub-optimal due to their limited structural diversity and poor connectivity to the wider landscape. The surrounding area is fragmented by roads and built development, reducing the likelihood of regular use by dormice. As such, while occasional presence cannot be ruled out, the site is considered to be of Site-level value only for this species, and confidence in this assessment is high.
- 4.55** In the absence of mitigation, there remains a very low risk of disturbing individual Hazel Dormice should they be present on-site on a transient basis. The proposed development will retain all boundary hedgerows, which represent the only habitat of any value to this species. The removal of five mature trees is not considered significant in the context of dormouse ecology, as the trees offer limited nesting or foraging potential and are not well connected to suitable habitat.
- 4.56** Nonetheless, standard precautionary measures are recommended to avoid any residual risk to dormice and to ensure legal compliance. Vegetation clearance should follow a staged approach and be undertaken outside of the breeding season where possible. Works affecting hedgerows and scrub should be supervised by a suitably qualified ecologist if undertaken during periods of dormouse activity. No licence is anticipated to be required under the current site design.
- 4.57** To enhance the site's value for Hazel Dormice in the long term, retained hedgerows should be improved through supplementary planting with a mix of native, fruit- or nut-bearing shrubs and climbers to increase structural and floristic diversity. Management should aim to encourage dense, species-rich hedgerows, maintained under a sensitive cutting regime to promote connectivity and food resources. These measures should be secured and implemented through a LEMP.
- 4.58** Subject to the implementation of these measures, the proposed development is not expected to result in any significant adverse impacts to Hazel Dormouse.

Invertebrates

- 4.59 The Site is considered unlikely to support significant assemblages of rare or notable invertebrates due to the common habitats present and restricted variety and density of micro-habitats available. The proposed site plan shows that large areas of suitable invertebrate habitat (grassland) will be lost because of the development. No further surveys are considered necessary although it is recommended that clearance of suitable notable invertebrate habitat (grassland) should be dismantled using hand tools in a methodical manner to allow invertebrates to move from the area to adjacent suitable habitat. Any notable invertebrates found during this time should be translocated to a suitable area of retained habitat nearby. Clearance should be done under supervision of an ECoW.
- 4.60 It is recommended that any increase in Site lighting follows a sensitive lighting approach which will cover bats and their prey sources (invertebrates).
- 4.61 Retained hedgerow habitat should be enhanced for invertebrates through additional planting and a sensitive long-term management plan. The Site could be enhanced for invertebrates through the inclusion of nectar rich plants in the landscaping design. Native night-scented plant species such as Red Campion (*Silene dioica*), Common Honeysuckle (*Lonicera periclymenum*) and Night-flowering Catchfly (*Silene noctiflora*) attract moths in the evening, which would in turn attract foraging bats. A non-exhaustive list of appropriate plants is provided in Appendix 7 and 8. Additionally, the Site could be further enhanced for invertebrates through the inclusion of insect boxes and 'bug hotels', which could be placed on trees or fence posts.
- 4.62 Mitigation would result in a **neutral** residual effect on invertebrates. Mitigation in conjunction with the planting of species known to benefit wildlife as well as the introduction of insect boxes, the development is likely to result in a **positive** residual effect at site level.

Reptiles

- 4.63 The on-site habitats, including long grassland, scrub and hedgerow, were considered suitable for reptile species in conjunction with habitats in the wider landscape. Removal of suitable reptile habitat coupled with the construction phase presents a potential risk of death and injury to reptiles, particularly if the construction activities coincide with periods when the reptiles are more sedentary.
- 4.64 As such, a seven-visit reptile survey is recommended to determine the presence/absence of common reptile species on the site. This survey should consist of the distribution of artificial reptile refugia (0.5m x 0.5m) at a density of ten per hectare. These should then be used to observe reptiles basking during 'suitable' days for reptiles (10-17C), as follow best practice. If common reptile species are recorded, then mitigation is likely to involve the removal of all individuals from the development area to avoid injury/death, potentially requiring translocation. Mitigation is likely to include the retention of suitable areas of undeveloped habitat within the site, which may have to be fenced during construction and maintained and enhanced through the provision of log piles. If this is not feasible, a reptile translocation to an offsite receptor area may be required.
- 4.65 Retained hedgerows and grassland habitat should be enhanced for reptiles through additional native species planting and a sensitive long-term management plan. Furthermore, the provision of a log pile hibernaculum within the retained boundary scrub edge would enhance the habitats for reptiles. Hibernacula design and construction should follow the Amphibian and Reptile Groups of the United Kingdom Advice Note 11.

Other notable species

- 4.66 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.
- 4.67 Amongst these species are European Hedgehog, Harvest Mouse, and Common Toad, for which suitable habitat exists on site and immediately adjacent. Potential impacts to European Hedgehog, Harvest Mouse, and Common Toad include risk of death/injury during construction/vegetation clearance. In addition, if access is impeded to new residential gardens, habitat loss/fragmentation could significantly impact hedgehog during the occupational phase.
- 4.68 No further species-specific surveys are likely to be required under current legislation and planning policy. However, sightings of these species during other surveys should be recorded to inform iterative assessments.
- 4.69 Habitat loss and fragmentation within the site will be minimised through the retention and buffering of boundary habitats wherever feasible. If clearance is required, it is recommended this is undertaken outside the hibernation season (November to February inclusive) when hedgehogs are most vulnerable. If this is not possible, it is recommended that clearance and ground works are undertaken under a method statement which details precautionary measures supervised by an ecologist. The loss of larger open grassland habitat is likely to displace Harvest Mouse from the Site; however, given the relatively small scale of the site and abundance of alternative suitable habitat within the wider rural-arable local landscape, this in itself is unlikely to have a significant negative impact on the local population. Buffering of retained boundary features will maintain ecological connectivity through the site for other notable species, and provide sheltering habitats (where at less disturbed boundaries of the developments). Where habitats are retained, suitable management to enhance these for notable species should be incorporated within LEMPs.

- 4.71 To retain access into the site for hedgehogs post-development, it is recommended that garden boundaries are either defined by permeable hedgerows, or Hedgehog highways are added to garden fences by creating ad hoc 13cm x 13cm holes in fencing/walls. This size gap is too small for most pets and can be undertaken by raising a fence panel per garden; installing Hedgehog friendly fencing (Figure 7); removing a brick at the bottom of a wall or cutting a hole in fencing/walls. Regular dropped curbs will protect hedgehogs from road collision. Furthermore, the installation of hibernacula and use of native, species-rich seed mixes in informal areas will provide suitable foraging habitat for this species.
- 4.72 Creation of new hedgerow and long grassland habitats, together with hibernacula provision as detailed for reptiles, would benefit Hedgehog and Harvest Mouse by providing enhanced foraging and refuge opportunities on the site.
- 4.73 These measures would result in a **neutral** residual effect on other notable species.

5.0 Conclusions

5.1 A summary of likely impacts, and proposed mitigation and enhancements is provided in Table 8.

Table 8: Summary of Likely Impacts, and Proposed Mitigation and Enhancement Measures.

Feature	Likely Impacts	Further Surveys and Assessment	Likely Mitigation and Enhancement Measures	Residual Effect
Non-Statutory Designated sites	Increased recreational pressure Indirect impacts such as lighting and noise	None required	Provision of on-site semi-natural open space. Buffering of existing PRoW and eastern boundary. Standard precautionary measures	Neutral
Habitats	Direct loss of trees, grassland, and ruderal vegetation. Impacts to retained habitats of value during construction, including via direct damage, pollution events, light and noise. Lighting and recreational disturbance to retained and created habitats during the operational phase.	If required by the LPA, a biodiversity value calculation using an appropriate DEFRA biodiversity metric may be undertaken to quantify habitat losses and gains and to inform the need for any compensatory habitat creation.	Retention, buffering and enhancement of habitats of ecological value wherever feasible, with compensatory provision where losses are unavoidable, seeking on-site solutions first before off-site compensation, in accordance with BNG Best Practice Principles. Suitable habitat creation/enhancement throughout the site, including, wildlife-friendly planting and strengthening of hedgerow/treeline network CEMP: Biodiversity Sensitive lighting scheme	Neutral to Positive

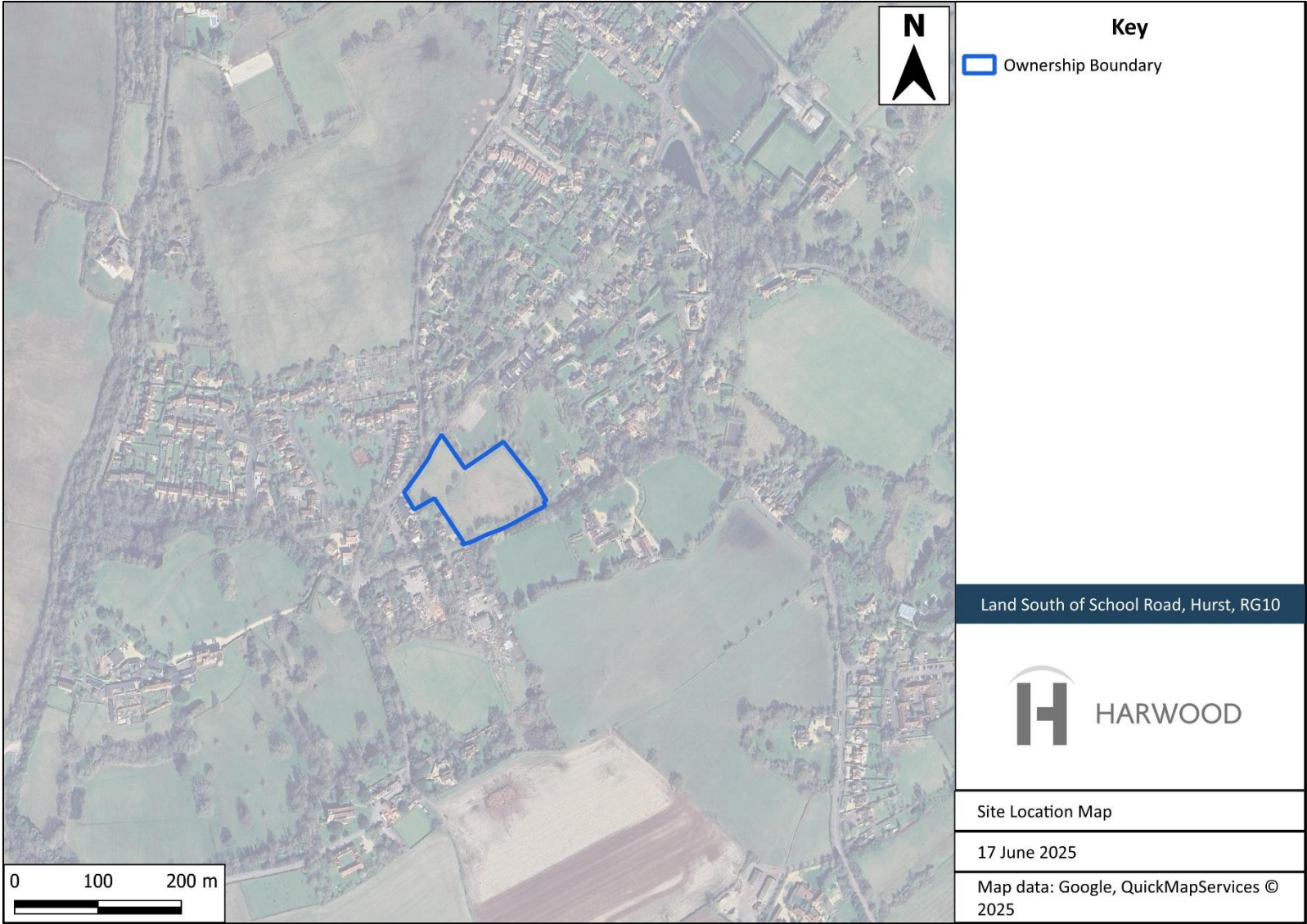
Feature	Likely Impacts	Further Surveys and Assessment	Likely Mitigation and Enhancement Measures	Residual Effect
Badger	Injury/death of dispersing individuals during construction and operation. Loss of foraging and commuting habitat.	None required	Standard precautionary measures during construction; covering trenches overnight or installing a plank/mammal ladder, sensible storage of chemicals/equipment, avoidance of littering. Delivery of suitable enhancement for foraging badger within open space Maintenance of ecological connectivity throughout, together with low speed limits	Likely Neutral
Bats	Lighting disturbance of commuting/ foraging areas (if increased). Loss of habitats of value to foraging bats.	Bat activity surveys	Sensitive lighting strategy. Retention and enhancement of boundary habitat Provision of bat boxes	Neutral to Positive
Birds	Loss of nesting and foraging habitat for breeding birds. Destruction of nests and death/injury of chicks/eggs.	Breeding bird surveys	Suitable measures to avoid nest destruction during the nesting season. Habitat clearance to be scheduled outside of March–August unless pre-clearance checks confirm absence of active nests. Sensitive lighting strategy to minimise disturbance to nocturnal and crepuscular species. Landscape scheme to include native, fruit- and seed-bearing shrubs and trees to enhance foraging opportunities. Provision of bird boxes to support nesting opportunities.	Neutral to Positive
Great Crested Newts	Death/injury/disturbance of GCN (if present). Loss of resting place/place of shelter.	eDNA surveys to determine whether mitigation is required	TBC on results of surveys. If required, mitigation likely to involve:	Neutral to Positive

Feature	Likely Impacts	Further Surveys and Assessment	Likely Mitigation and Enhancement Measures	Residual Effect
			Staged habitat removal under a method statement (possible). Enhancement of retained hedgerows and grassland through additional planting. Creation of hibernacula.	
Hazel Dormouse	Death/injury/disturbance of Hazel Dormouse (if present). Loss of resting place/place of shelter.	None required	Retention of all boundary hedgerows and associated scrub habitat. Supplementary planting to improve structural and floristic diversity, increasing foraging and nesting potential. Hedgerows to be managed under a long-term, sensitive cutting regime secured via a LEMP. Staged vegetation clearance outside of the dormouse breeding season, with supervision by a suitably qualified ecologist if undertaken during periods of dormouse activity.	Neutral
Invertebrates	Potential for common and widespread species to be impacted through habitat clearance Light disturbance during and post construction	None required	Retention and buffering of higher-value native hedgerows and trees Wildlife friendly planting scheme throughout development, incorporating resources for a range of pollinator species Ongoing management of hedgerows and trees, and new habitats to provide a diverse variety of micro-habitats, specified through LEMPs Provision of invertebrate boxes Sensitive lighting scheme.	Neutral to Positive

Feature	Likely Impacts	Further Surveys and Assessment	Likely Mitigation and Enhancement Measures	Residual Effect
Reptiles	Death/injury of common reptile species Habitat loss/fragmentation	Presence/absence surveys	Reptile translocation and staged habitat removal, followed by destructive search if required, implemented under a method statement. Vegetation clearance to be timed to avoid the reptile hibernation season. Enhancement of retained hedgerows and grassland through supplementary native planting. Retention and protection of key habitat features, particularly hedgerows. Habitat enhancements to include provision of hibernacula and creation of structurally diverse edge habitats. Sensitive management of retained edge habitats (hedgerows, treelines) and grassland with varied sward structure, to be specified in LEMPs.	Neutral to Positive
Other notable species	Death/injury Habitat loss/fragmentation	None required	Retention and buffering of hedgerows and grassland creation to maintain ecological connectivity through the site. Sensitive timings for works to terrestrial habitats, e.g. outside of hedgehog hibernation season (November-March). Search by an ecologist for notable species prior to clearance of long-grass habitats. Supervised and staged habitat removal. Provision of hedgehog highways in fencing and culverts for animal movement under new roads.	Neutral to Positive

Feature	Likely Impacts	Further Surveys and Assessment	Likely Mitigation and Enhancement Measures	Residual Effect
			Precautionary measures already specified for Badger will also serve to protect Hedgehog from harm during construction.	

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: Baseline Habitats Map



Appendix 4: Plant Species within the Site

Common name	Scientific name	Other neutral grassland	Native hedgerow	Species-rich native hedgerow	Species-rich native hedgerow with trees	Bramble scrub	Ruderal vegetation	Scattered trees
Birds-Foot Trefoil	<i>Lotus corniculatus</i>	Y						
Bramble	<i>Rubus fruticosus</i>			Y	Y	Y		
Cherry Plum	<i>Prunus cerasifera</i>							Y
Cock's Foot	<i>Dactylis glomerata</i>	Y						
Common Alder	<i>Alnus glutinosa</i>							Y
Common Knapweed	<i>Centaurea nigra</i>	Y						
Common Lime	<i>Tilia × europaea</i>							Y
Common Nettle	<i>Urtica dioica</i>						Y	
Common Thistle	<i>Cirsium arvense</i>						Y	
Crab Apple	<i>Malus sylvestris</i>							Y
Creeping Buttercup	<i>Ranunculus repens</i>	Y						
Daffodil	<i>Narcissus sp.</i>							
Dogwood	<i>Cornus sanguinea</i>		Y		Y			
Elder	<i>Sambucus nigra</i>							
European Ash	<i>Fraxinus excelsior</i>			Y				Y
European Oak	<i>Quercus robur</i>			Y				Y
False-Oat Grass	<i>Arrhenatherum elatius</i>	Y						
Field Maple	<i>Acer campestre</i>			Y				Y
Hawthorn	<i>Crataegus monogyna</i>			Y	Y			Y
Hazel	<i>Corylus avellana</i>		Y		Y			

Horse Chestnut	<i>Aesculus hippocastanum</i>				Y			
Ivy	<i>Hedera helix</i>				Y			
Meadow Buttercup	<i>Ranunculus acris</i>	Y						
Meadow Foxtail	<i>Alopercurus pratensis</i>	Y						
Perennial Ryegrass	<i>Lolium perenne</i>	Y						
Rough Meadow-Grass	<i>Poa trivialis</i>	Y						
Sorrel	<i>Rumex acetosa</i>	Y						
Sweet Vernal Grass	<i>Anthoxanthum odoratum</i>	Y						
Sycamore	<i>Acer pseudoplatanus</i>				Y			Y
Weeping Willow	<i>Salix babylonica</i>							Y
White Clover	<i>Trifolium repens</i>	Y						Y
Wild Cherry	<i>Prunus avium</i>							Y
Yarrow	<i>Achillea millefolium</i>	Y						
Yorkshire Fog	<i>Holcus lanatus</i>	Y						
Yew	<i>Taxus baccata</i>			Y	Y			

Appendix 5: Site Photographs



Photo 1. View from the south, facing north. Scattered trees T30 and T29 are visible in the middle of the Site.



Photo 2. View from the west, facing east.



Photo 3. View from the north, facing south.



Photo 4. View from the east, facing west.

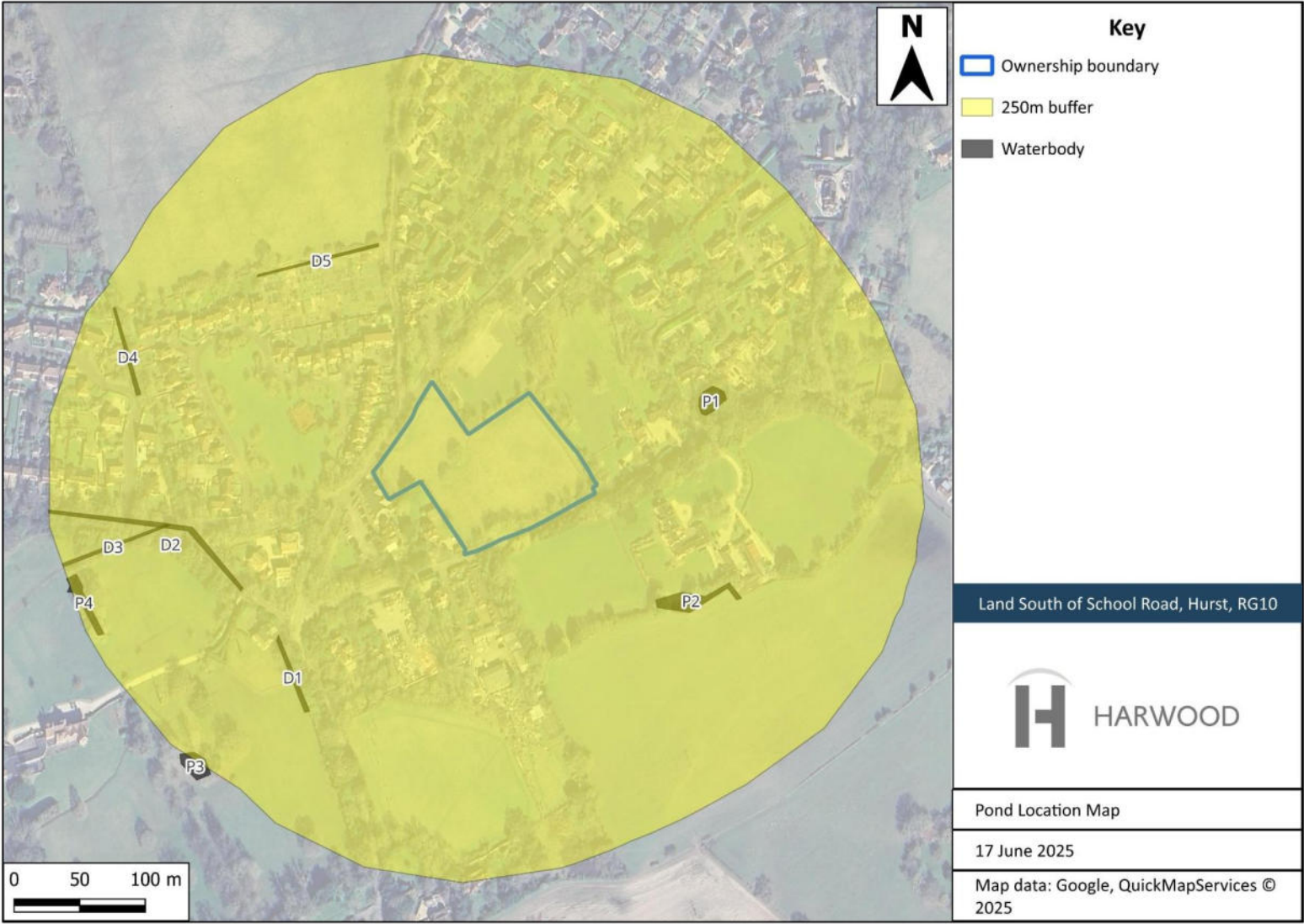


Photo 5. Native species rich hedgerow with trees, present in the eastern boundary of the Site, and immediately adjacent to the PRow entrance from School Road.



Photo 6. Native hedgerow along the western boundary of the Site. Ruderal vegetation is visible to the front of the hedge.

Appendix 6: Pond Map



Appendix 7: 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 8: 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		