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Preliminary Ecological Appraisal

Hillside, Lower Wokingham Road, Crowthorne, Berkshire, RG45 6BX.

July 2026

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Project: Hillside, Lower Wokingham Road, Crowthorne, Berkshire, RG45 6BX.

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1.0 Non-Technical Summary

1.1 This Preliminary Ecological Appraisal (PEA) has been prepared to support a planning application for residential dwellings and associated infrastructure.

1.2 The primary goal of this assessment is to identify any potential ecological constraints and opportunities associated with the site and to guide the design process from the earliest stages. This ensures that ecological considerations are fully integrated into the planning and decision-making process.

1.3 As part of this PEA, a comprehensive desktop study was conducted to collect information on existing ecological designations, habitats, and species records within the surrounding area. Additionally, an on-site UK Habitat Classification survey was carried out to map and describe the habitats present on the site in a standardised and detailed manner. This approach supports consistent habitat recording and aligns with emerging best practices, including assessments for biodiversity net gain.

1.4 Key findings highlight the presence of various habitat features of ecological value, as well as statutory and non-statutory designated sites within the local landscape. These features may support a range of wildlife, including bats, breeding birds, dormice, badgers and reptiles.

1.5 To address potential impacts, this PEA provides detailed recommendations for ecological mitigation, including measures to protect existing habitats, avoid disturbance to wildlife, and ensure compliance with legal obligations regarding protected species. Additionally, enhancement measures are proposed to improve the site's overall biodiversity value. These include native planting schemes, installation of bird and bat boxes, and improvements to habitat connectivity.

1.6 Overall, the mitigation and enhancement strategy has been designed to ensure that the proposed development minimises adverse ecological impacts. The approach fully aligns with relevant national and local planning policies, including the National Planning Policy Framework (NPPF) and local biodiversity action priorities.

2.0 Introduction

Purpose of the Report

2.1 This report presents the findings of a Preliminary Ecological Appraisal (PEA) undertaken to systematically evaluate the ecological characteristics and sensitivities within the zone of influence of the application.

2.2 The PEA has been prepared following current best practice guidance, including the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines. Its purpose is to inform the planning process and ensure that ecological considerations are fully integrated into the design and delivery of the proposed development.

2.3 The primary objectives of this PEA are formally defined as follows:

- To identify and delineate potential ecological constraints that may exert influence on the proposed development and its feasibility.
- To ascertain the likelihood of the presence of protected habitats and species within the site and its immediate surroundings, taking into account statutory and non-statutory designations as well as local biodiversity interests.
- To objectively evaluate potential ecological impacts anticipated as a consequence of the proposed development activities during both the construction and operational phases.
- To recommend appropriate mitigation measures designed to prevent, reduce, or compensate for potential adverse ecological impacts.
- To identify and specify the need for further targeted ecological surveys, where necessary, to address data gaps and inform detailed mitigation and design proposals.
- To explore and articulate opportunities for ecological enhancement, and to define strategies aimed at achieving measurable Biodiversity Net Gain (BNG) as an integral part of the project delivery.
- To furnish comprehensive ecological considerations to the planning authority, ensuring the project's compliance with all relevant environmental legislation and policy frameworks at both national and local levels.

2.4 Through this robust assessment and strategic approach, the PEA aims to support the delivery of a development that not only meets planning requirements but also contributes positively to local biodiversity and green infrastructure objectives.

British Standard BS 42020:2013 Compliance

2.5 In adherence to the guidelines stipulated within British Standard BS 42020:2013 — Biodiversity: Code of practice for planning and development, a suitably qualified professional ecologist was formally commissioned to undertake an independent and rigorous assessment of the ecological features present on the site.

2.6 The assessment methodology was developed and conducted in strict accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal, ensuring that the approach was proportionate to the scale and nature of the proposed development.

2.7 This Preliminary Ecological Appraisal (PEA) provides a comprehensive evaluation of the anticipated impacts of the proposed development on the local ecology. It clearly outlines the potential effects on habitats and species, identifies constraints, and considers cumulative impacts where relevant.

2.8 In addition to assessing potential impacts, the PEA details appropriate mitigation, compensation, and enhancement measures, aiming to minimise harm and deliver measurable benefits to biodiversity.

2.9 Furthermore, this assessment addresses the potential requirement for consultation with statutory bodies (such as Natural England) and outlines the need for any relevant ecological consents or licences, particularly in relation to legally protected species or habitats.

Qualifications and Competence of the Ecologist

2.10 Through strict compliance with BS 42020:2013 and adherence to professional best practice standards, this assessment ensures that ecological considerations are robustly integrated into the planning process, supporting lawful, sustainable, and biodiversity-positive development outcomes.

2.11 The ecologist responsible for overseeing and delivering this assessment possesses over 25 years of professional experience in the field of conservation and ecology. This individual is the founder of a conservation charity and has held multiple senior leadership positions, including Head of Conservation at a Wildlife Trust, Director of Studies at the Field Studies Council, and Course Director at both the University of Essex and the University of Cambridge.

2.12 The ecologist has attained national recognition for their substantial contributions to conservation and biodiversity, as demonstrated by a series of prestigious fellowships. These include fellowships from:

- The Chartered Institute of Ecology and Environmental Management (CIEEM)
- The Royal Entomological Society
- The Royal Society of Biology
- The Linnean Society of London

2.13 In addition, the ecologist holds the role of Executive Fellow within the School of Biological Sciences at the University of Essex, underscoring their ongoing commitment to academic excellence and research-led practice.

2.14 Extensive professional engagements further reflect expertise and standing within the field. The ecologist currently:

- Contributes to the External Advisory Board for the University of Essex
- Represents CIEEM on various academic and advisory boards, including at the University of Southampton
- Serves as a judge for national ecological awards and projects
- Acts as an ecological expert for the Southwood Foundation
- Through this combination of extensive practical experience, academic leadership, and professional recognition, the ecologist demonstrates exceptional competence and authority, ensuring that this Preliminary Ecological Appraisal is delivered to the highest professional standards and in full compliance with relevant codes of practice.

3.0 Scope of Works

3.1 The scope of this Preliminary Ecological Appraisal (PEA) formally encompassed the following key components:

- A comprehensive desk study, involving a detailed review of statutory and non-statutory designated sites, as well as priority habitats within a predefined search radius surrounding the site.
- A thorough review of publicly accessible records relating to protected and notable species within the study area, to identify potential ecological sensitivities and inform the need for further surveys.

- The execution of an on-site UK Habitat Classification survey, undertaken to accurately identify and map the habitats present on the site and to assess their suitability for supporting protected or priority species.
- An objective assessment of potential ecological impacts arising from the proposed development, based on the findings of both the desk study and field survey work.
- The formulation of recommendations for appropriate mitigation measures to avoid, reduce, or compensate for potential adverse effects; identification of requirements for further targeted ecological surveys where deemed necessary; and the proposal of site-specific ecological enhancement measures, including explicit consideration of achieving Biodiversity Net Gain (BNG).
- A meticulous review of relevant wildlife legislation and planning policies, ensuring that the proposed development complies with statutory obligations and aligns with both national and local biodiversity objectives.

3.2 This scope has been carefully designed to provide a robust and proportionate ecological evidence base, supporting the planning application and informing the integration of ecological considerations into the design and implementation of the proposed development.

Relevant Legislation and Policy Context

3.3 This Preliminary Ecological Appraisal (PEA) rigorously considers all relevant wildlife legislation and planning policies that govern the proposed development.

Legislation

3.4 The following key legislative instruments were carefully considered within the scope of this assessment:

- The Wildlife and Countryside Act 1981 (as amended) — the principal legislation protecting wildlife species, habitats, and designated sites in the UK.
- The Conservation of Habitats and Species Regulations 2019 (as amended) — transposing the EU Habitats and Birds Directives into domestic law, providing protection for European Protected Species (EPS) and habitats of European importance.
- The Natural Environment and Rural Communities (NERC) Act 2006 — which imposes a biodiversity duty on public authorities to have regard to the conservation of biodiversity when carrying out their functions.

- The Countryside and Rights of Way (CROW) Act 2000 — providing additional protection to SSSIs and public access to the countryside.
- The Protection of Badgers Act 1992 — offering legal protection to badgers and their setts against disturbance and harm.
- The Environment Act 2021 — introducing the requirement for measurable Biodiversity Net Gain (BNG) in most new developments and strengthening the framework for nature recovery.

National Planning Policy Framework (NPPF)

3.5 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and the principles that should guide planning decisions. In accordance with section 38(6) of the Planning and Compulsory Purchase Act 2004, planning applications must be determined in accordance with the development plan unless material considerations indicate otherwise.

3.6 As this proposal is an outline planning application for up to 49 residential dwellings with access to be determined, the assessment focuses on whether the principle of development is acceptable and whether the site is capable of accommodating the proposed quantum of development within appropriate environmental parameters. Detailed matters, including layout, scale, appearance and landscaping, are reserved for subsequent approval.

Material Planning Considerations

3.7 Material planning considerations relevant include:

- National, regional and local planning policy.
- National Planning Practice Guidance (PPG).
- Relevant Government Circulars, statutory guidance and ecological best practice.
- The statutory biodiversity duty under the Environment Act 2021.
- The requirement to secure mandatory Biodiversity Net Gain.
- The potential effects of the development on designated sites, protected and Priority Habitats, protected and notable species, ecological networks and wider natural capital.

Biodiversity and the Natural Environment

3.8 Chapter 15 of the NPPF requires planning decisions to contribute to and enhance the natural and local environment. In particular, decision-makers should seek to protect and enhance sites of biodiversity importance, maintain and strengthen ecological networks, conserve landscape character where appropriate and secure measurable biodiversity improvements.

3.9 Paragraph 189 requires planning authorities to distinguish between international, national and locally designated biodiversity sites, to allocate land with the least environmental value where consistent with other policies, and to take a strategic approach to maintaining and enhancing habitats, green infrastructure and natural capital.

3.10 Paragraph 193 establishes the mitigation hierarchy, requiring ecological impacts to be addressed through:

- avoidance;
- mitigation; and
- compensation, where residual effects cannot reasonably be avoided.

3.11 Paragraph 195 confirms that the presumption in favour of sustainable development does not apply where a proposal is likely to have a significant effect on a Habitats Site unless an Appropriate Assessment concludes that the integrity of that site will not be adversely affected. This provision relates specifically to internationally designated Habitats Sites and does not apply to Local Wildlife Sites.

3.12 The NPPF recognises Local Wildlife Sites as locally designated sites of importance for biodiversity. Their protection is a material planning consideration, and proposals affecting such sites should seek to avoid or minimise harm through the application of the mitigation hierarchy, whilst also securing appropriate biodiversity enhancement and mandatory Biodiversity Net Gain where required.

Wokingham Borough Local Planning Policy

Wokingham Borough Local Plan Update (2023–2040)

3.13 The Wokingham Borough Local Plan Update (LPU) establishes the spatial strategy for growth to 2040 and provides the planning policy framework for managing development throughout the Borough. Although the plan remains under examination, it is a material consideration in the determination of planning applications. The LPU seeks to ensure that development contributes positively to biodiversity, green infrastructure, climate resilience and the natural environment, whilst delivering sustainable growth.

3.14 The ecological assessment has therefore been undertaken having regard to the objectives and policies contained within the emerging Local Plan Update, alongside the National Planning Policy Framework (NPPF), the Environment Act 2021 and other relevant legislation.

Policy NE1 – Biodiversity and Geodiversity

3.15 Policy NE1 seeks to conserve, restore and enhance biodiversity and geodiversity across Wokingham Borough. Development proposals should:

- avoid adverse effects on internationally, nationally and locally designated sites;
- protect Priority Habitats, irreplaceable habitats and protected species;
- maintain, restore and enhance ecological networks;
- contribute to Local Nature Recovery;
- apply the mitigation hierarchy by prioritising avoidance of impacts before mitigation or compensation;
- secure measurable Biodiversity Net Gain in accordance with the Environment Act 2021; and
- incorporate biodiversity enhancement measures into the design of development.

3.16 Accordingly, ecological impacts associated with the proposed development have been assessed in accordance with the mitigation hierarchy and opportunities for habitat retention,

enhancement and Biodiversity Net Gain have been considered from the earliest stages of the design process.

Green Infrastructure

3.17 The Local Plan recognises green infrastructure as a fundamental component of sustainable development. Development should:

- retain existing green infrastructure wherever practicable;
- strengthen ecological connectivity between habitats;
- integrate new habitats into wider green infrastructure networks;
- provide multifunctional open spaces that deliver biodiversity, recreation, climate resilience and landscape benefits;
- incorporate sustainable drainage systems (SuDS) that contribute to biodiversity and water quality; and
- improve public access to high-quality natural greenspace where appropriate.

3.18 For this proposal, existing trees and areas of semi-natural habitat represent important components of the local green infrastructure network and should be retained and enhanced wherever possible.

Trees and Woodland

3.19 The Local Plan seeks to protect existing trees, woodland and hedgerows because of their contribution to biodiversity, landscape character, climate resilience and ecosystem services. Development proposals should:

- retain mature trees wherever practicable;
- avoid unnecessary tree loss;
- protect Root Protection Areas throughout construction;
- maintain woodland edge habitats;
- strengthen habitat connectivity through additional native tree planting;
- protect veteran trees and irreplaceable habitats; and

- secure long-term management of retained woodland and trees.

3.20 Accordingly, mature trees on and adjoining the site have been considered within this ecological assessment and should be integrated into the final layout wherever possible.

Biodiversity Net Gain

3.21 Consistent with the Environment Act 2021, the Local Plan requires development proposals to demonstrate a measurable Biodiversity Net Gain of at least 10%, calculated using the latest Statutory Biodiversity Metric. Ecological enhancements should be secured through long-term habitat management and monitoring where necessary.

Thames Basin Heaths Special Protection Area (SPA)

3.22 The application site lies within the zone of influence of the Thames Basin Heaths Special Protection Area (SPA), an internationally designated site protected under the Conservation of Habitats and Species Regulations. The SPA supports internationally important populations of:

- Dartford Warbler (*Curruca undata*)
- Nightjar (*Caprimulgus europaeus*)
- Woodlark (*Lullula arborea*)

3.23 Policy NE3 – Thames Basin Heaths SPA states that development likely to have a significant effect on the SPA, either alone or in combination with other plans or projects, will not be permitted unless appropriate avoidance and mitigation measures are secured. Applicants must provide sufficient information to enable the Council to undertake a Habitats Regulations Assessment, and larger residential developments may also require assessment of air quality effects where relevant.

3.24 For residential development, mitigation is generally delivered through the Thames Basin Heaths strategic avoidance measures, including:

- Suitable Alternative Natural Greenspace (SANG);

- Strategic Access Management and Monitoring (SAMM); and
- a project-specific Habitats Regulations Assessment where required. The Local Plan's supporting HRA confirms that this strategic SANG and SAMM approach is the mechanism used to avoid adverse effects on the integrity of the SPA.

4.0 Methodology

Desk Study

4.1 A comprehensive desk-based assessment was systematically undertaken to identify statutorily designated sites, priority habitats, and other ecological constraints both within and in proximity to the survey area.

4.2 The Multi-Agency Geographic Information for the Countryside (MAGIC) online mapping tool, maintained by Natural England, was utilised to review key environmental datasets. This review encompassed information on habitat types, ecological networks, protected site boundaries, and records of statutory designations relevant to the site and surrounding landscape.

4.3 The desk study further assessed habitat connectivity and the broader landscape context, providing an understanding of how the site interacts with adjacent habitats and ecological corridors. This landscape-level perspective was essential to identify potential ecological receptors and to evaluate cumulative and indirect impacts associated with the proposed development.

4.4 The data derived from the desk study have been instrumental in informing the preliminary evaluation of potential ecological impacts, enabling the early integration of avoidance, mitigation, and compensation measures into the site design where appropriate.

4.5 A search protocol included a formal review of granted European Protected Species (EPS) licences, accessible via the MAGIC database. These licences indicate locations where EPS mitigation has been required under previous development consents.

4.6 EPS licence data are considered current if they have been issued within the preceding two years and may retain contextual relevance for up to five years. Although these data do not provide detailed site-specific species records, they offer valuable insight into the likely presence and distribution of EPS within the wider landscape, thereby supporting a robust preliminary assessment.

Habitat Survey

4.7 The vegetation and habitat types are classified according to the UK Habitat Classification. The UK Habitat Classification (UKHab) is a comprehensive habitat classification system for the UK that provides outputs suitable for ecological impact assessments, habitat metrics, and better data integration between organisations.¹ The UKHab translates easily into Priority Habitat Types and Annex 1 Habitat Types.

Protected Species

4.8 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on-site based on habitat suitability and any direct evidence. The evaluation should not be taken as providing a complete and definitive survey of any protected species group. The assessment is only valid for the time of the study. Additional surveys are recommended if, based on this assessment, it is likely that protected species may be present.

Buildings and other structures

4.9 Any buildings or other structures on site were surveyed. The surveys comprised an external visual inspection and an internal search (where safety allowed) to look for signs of, or potential for, protected species. Indicators could include live animals, carcasses, droppings, feeding remains and nesting material. A ladder, high-powered torch, binoculars, and an angled mirror were available as required.

Landscape and Permeability

4.10 Connectivity refers to the degree to which the landscape facilitates movement between different habitat patches.² There are two types of connectivity: structural connectivity and functional connectivity. Structural connectivity refers to physical connections in the landscape between habitat patches (often called "corridors", although they do not necessarily have to be linear features). Functional connectivity refers to how much the landscape helps or hinders the movement of species and often relates to the vegetation structure or the management intensity. Functional connectivity is species-specific as it depends on the mobility of the species

¹ Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *The UK Habitat Bank Classification User Manual Version 1.1*.

² Kuttunen, M., Terry, A., Tucker, G. & Jones, A. (2007). *Guidance on the maintenance of landscape connectivity features of major importance for wild flora and fauna: Guidance on the implementation of Article 3 of the Birds Directive (79/409/EEC) and Article 10 of the Habitats Directive (92/43/EEC)*. Brussels: Institute for European Environmental Policy.

and the habitat types present in the landscape.³

4.11 Permeability also refers to a species' ability to move through the landscape. It depends on the species and the structural similarity of the landscape to the habitat the species prefers.

5.0 Results

Site Location and Description

5.1 The site is located at Hillside, Lower Wokingham Road, Crowthorne, Berkshire, RG45 6BX and comprises a mixture of habitats such as individual trees, unsealed surfaces and other neutral grassland.

Survey Details

5.2 The site assessment was meticulously conducted on the 12th of June under optimal environmental conditions for ecological survey work. Conditions during the survey included:

- Cloudy skies provide excellent visibility.
- A gentle breeze ensures comfortable and safe working conditions.
- An ambient temperature of approximately 22°C, suitable for the detection and identification of a wide range of faunal and floral features.

5.3 Before the site visit, a comprehensive risk assessment was completed to identify and manage potential health and safety risks associated with fieldwork. All requisite personal protective equipment (PPE) was appropriately utilised throughout the survey to ensure the safety of personnel.

5.4 Access to the site was formally granted by the client, which facilitated a complete and unimpeded walkover inspection of all accessible areas. This thorough approach enabled the ecologist to accurately record habitat features, assess suitability for protected species, and identify any ecological constraints and opportunities relevant to the proposed development.

Desk Study: Designated Sites and Habitats of Principal Importance

5.5 The desk-based assessment identified the following ecological features and statutory or non-statutory designations within the specified search radii surrounding the site:

- Special Protection Area (SPA) / Special Area of Conservation (SAC) within 5 km:
Presence absent (*refer to Appendix 8.1*).

³ Eycott, A. E., Marzano, M. & Watts, K. (2011). *Filling evidence gaps with expert opinion: The use of Delphi analysis in least-cost modelling of functional connectivity*. Landscape and Urban Planning, 103: 400-40.

- Site of Special Scientific Interest (SSSI) within 2 km: Presence confirmed (*refer to Appendix 8.2*).
- Ancient Semi-Natural Woodland within 1 km: Not present (*refer to Appendix 8.3*).
- Priority Habitat within 1 km: Presence confirmed (*refer to Appendix 8.4*).
- Ponds within 500 metres: Presence confirmed (*refer to Appendix 8.5*).
- Rivers, streams, or water-filled ditches within 100 metres: Presence confirmed.

5.6 The review of current and historical data (within a five-year timeframe) further indicated that European Protected Species (EPS) licences have been granted within a 1 km radius of the site (*refer to Appendix 8.6*).

5.7 Additionally, the site is situated mostly within a green risk zone for great crested newts (*Triturus cristatus*), highlighting a low likelihood of this species being present in suitable aquatic and terrestrial habitats nearby. No ponds are on site.

Landscape Connectivity

5.8 The ecological assessment of the site identifies low ecological permeability within the immediate landscape, indicating significant barriers to the natural movement and dispersal of wildlife. With roads and dwellings present. However, retained mature trees provide valuable connectivity for bats and birds.

Habitat Survey (Map 1)

5.9 A large area of the site comprised other neutral grassland characterised by a coarse sward. Dominant grasses included false oat-grass (*Arrhenatherum elatius*), couch grass, perennial rye-grass (*Lolium perenne*), cocksfoot (*Dactylis glomerata*), red fescue (*Festuca rubra*), and rough meadow-grass (*Poa trivialis*). Herbs included ribwort plantain (*Plantago lanceolata*), yarrow (*Achillea millefolium*) and white clover.

Individual Trees

5.10 Individual Trees (Rural) comprise isolated or scattered trees located outside woodland within agricultural landscapes, grassland, parkland or field boundaries. These trees often provide important ecological functions, including nesting and roosting opportunities, deadwood habitat, food resources, habitat connectivity and landscape character. Mature and veteran trees are of particularly high biodiversity value due to the presence of cavities, decaying wood, loose bark and associated fungi and invertebrates.

5.11 Several individual trees are within third-party. Trees on site include common oak, *Pinus* spp. and sycamore. The oak is being retained.

Modified grassland

5.12 Modified grassland includes the characteristic grasses and common broadleaved herbs typically associated with agriculturally improved or amenity-managed swards. Modified grassland can still support a range of common plants. A small area resembled modified grassland in a poor habitat condition.

Ruderal species

5.13 Ruderal species are plants that are adapted to disturbed, nutrient-rich environments. They are often the first species to colonise bare or disturbed ground and are typically fast-growing, short-lived or highly competitive. Several ruderal species were present including Common nettle (*Urtica dioica*), Prickly ox-tongue (*Helminthotheca echioides*) and Cleavers (*Galium aparine*).

Unsealed surfaces

5.14 Developed land; unsealed surface (u1b7) comprises areas that have been modified by human activity but are not covered by an impermeable surface. These areas typically consist of compacted gravel, crushed stone, hardcore or other permeable substrates. Vegetation is generally absent or very sparse due to regular disturbance or compaction.

Vegetated Gardens

5.15 Vegetated gardens comprise residential garden areas dominated by vegetation rather than buildings or sealed surfaces. They typically consist of a mosaic of lawns, ornamental planting, shrubs, hedgerows, trees, flower beds, vegetable plots and other landscaped features. Although managed by householders, vegetated gardens can provide valuable habitat for wildlife, contributing to habitat connectivity, foraging opportunities and shelter within urban and suburban landscapes. Where gardens contain mature trees, native hedgerows, ponds or species-rich grassland, these features are included separately.

Sealed surfaces

5.16 Sealed surfaces comprise permanently impermeable, human-made structures and hardstanding that prevent the natural infiltration of water into the underlying soil. They include buildings, roads, footpaths, car parks, concrete yards, tarmac, asphalt, block paving and other hardstanding.

Other neutral grassland

5.17 Other Neutral Grassland comprises semi-natural or long-established grassland occurring on neutral soils. Species included false oat-grass (*Arrhenatherum elatius*), Yorkshire fog (*Holcus lanatus*), red fescue (*Festuca rubra*), common bent (*Agrostis capillaris*), cock's-foot (*Dactylis glomerata*), perennial rye-grass (*Lolium perenne*), greater plantain (*Plantago major*), yarrow (*Achillea millefolium*), dandelion (*Taraxacum officinale* agg.), and white clover (*Trifolium repens*).

Protected Species Habitat Suitability Assessment

5.18 This section assesses the potential of the site and its immediate surroundings to support protected species, based on field survey and professional judgement. The assessment follows current best-practice guidance and relevant legislation, including the Wildlife and Countryside Act 1981 (as amended) and survey standards specific to each taxon group.

Hazel Dormouse (*Muscardinus avellanarius*)

5.19 Hazel dormice require structurally complex, well-connected woodland systems with rich shrub and climber layers, rotational coppice, and continuous canopy connections. They typically inhabit species-rich, structurally diverse deciduous woodland and hedgerows that provide a reliable, continuous food supply throughout the active season, as well as shelter and breeding sites.

5.20 The wider landscape context is also crucial, ideally featuring adjacent woodland patches and hedgerow corridors, low pesticide usage, minimal disturbance, and a mosaic of complementary habitats to support foraging, breeding, and dispersal. The site offers no habitats suitable for dormice. Therefore, **no** further surveys are required.

Badger (*Meles meles*)

5.21 Badgers need a mix of woodland, grassland, and scrubland for foraging, along with undisturbed, secure areas for setts (burrows). The surrounding landscape must offer habitat connectivity, low disturbance, and ample food sources. High traffic, urbanisation, and fragmentation are detrimental to badger populations.

5.22 No badger setts, foraging, or a latrine were present. Therefore, this species needs **no** further surveys.

Bats

5.23 Bats are highly mobile, nocturnal mammals that rely on a combination of roosting,

foraging, and commuting habitats to support their lifecycle. Roost sites may include tree cavities, cracks or splits in mature trees, buildings (e.g., roof spaces, wall crevices, soffits), bridges, and other man-made structures, and are essential for shelter, breeding and hibernation.

5.24 Bats were assessed following the *Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines* (latest edition). All buildings and trees within the site were inspected for roosting potential using standard survey equipment, including a torch, binoculars, ladder and an endoscope where appropriate. The assessment focused on identifying features such as crevices, cracks, lifted tiles or bark, and other structural elements capable of supporting roosting bats.

5.25 The retained mature oak and several trees within third-party ownership contribute to local bat commuting and foraging habitat. Any trees proposed for removal should therefore be subject to a Preliminary Roost Assessment, with further dusk emergence or dawn re-entry surveys undertaken where Potential Roost Features are identified. Therefore, this group requires **further consideration**.

Great Crested Newt (*Triturus cristatus*)

5.26 Great Crested Newts (GCN) require a mosaic of interconnected aquatic and terrestrial habitats to support all stages of their lifecycle, including breeding, foraging, sheltering, and dispersal.

5.27 The site lies predominantly within the NatureSpace Great Crested Newt Impact Risk Green Zone, indicating a relatively low likelihood of impacts on great crested newts. No recent European Protected Species licences relating to great crested newts were identified within 1 km of the site. No ponds are present within the application site and terrestrial habitats are of limited suitability. Consequently, the likelihood of great crested newts occurring within the development footprint is considered low and no further surveys are recommended. Therefore, this species requires **no** further consideration.

Reptiles

5.28 All UK native reptiles are ectothermic (cold-blooded), meaning they depend on external heat sources for activity. They prefer habitats that provide sunny basking spots, dense vegetation cover, and good prey availability. Microhabitats with south-facing slopes, open ground, and structural diversity (logs, stones, tussocks, scrub edges) are especially important.

5.29 The site offered no opportunities for reptiles. Therefore, they require **no** further consideration.

Breeding birds

5.30 Breeding birds require suitable nesting habitats, which can include trees, shrubs, hedgerows, scrub, and built structures, depending on the species. Many species also depend on the surrounding habitat for foraging, such as grassland, gardens, or semi-natural areas.

5.31 The site includes a variety of features that offer potential nesting and feeding opportunities. Breeding birds are likely to make use of parts of the site, particularly the trees for nesting and foraging. Therefore, they require **further consideration**.

Hedgehog (*Erinaceus europaeus*)

5.32 Although habitat suitability is limited, hedgehogs remain widespread within suburban landscapes and are capable of dispersing through residential areas. As a UK Priority Species, appropriate connectivity measures, including hedgehog access gaps and wildlife-friendly boundary treatments, should be incorporated into the final design.

Barn Owl (*Tyto alba*)

5.33 Barn owls depend on very specific structures for nesting and roosting. The lack of such features on the site precludes its use for breeding or regular roosting. Comprehensive inspection confirmed there were no suitable buildings, cavities, or sheltered spaces that could potentially support barn owls. This species requires **no** further consideration or survey within the context of this development proposal.

Invertebrates

5.34 The assessment considered both on-site habitat features and the surrounding landscape context, acknowledging that priority invertebrate species have highly specific habitat and host plant requirements.

5.35 The type of habitats present on the site would support common species. Improving the woodland habitats would be beneficial for saprolytic invertebrates and other wildlife. This species requires **no survey** within the context of this development proposal.

White-Clawed Crayfish (*Austropotamobius pallipes*)

5.36 The white-clawed crayfish is the only native freshwater crayfish species in the UK and is facing significant pressures from habitat loss, pollution, and the spread of non-native invasive species, such as the signal crayfish (*Pacifastacus leniusculus*). No suitable aquatic habitat was

identified on-site or within the immediate surrounding area. No watercourses, lakes, ponds, or wetland features capable of supporting white-clawed crayfish are present. This species requires **no** further consideration or survey within the scope of this appraisal.

Water Vole (*Arvicola amphibius*)

5.37 Water voles depend on slow-moving watercourses, ditches, wetlands, ponds, and vegetated riverbanks that provide dense riparian vegetation for foraging and burrowing. No suitable waterbodies or bank habitats were present on site. No field signs (e.g., latrines, burrows, footprints, feeding remains) indicative of water vole activity were recorded during the survey. This species requires **no** further consideration or survey as part of this appraisal.

Non-native Invasive Species (NNIS)

5.38 No invasive species were recorded on the site. The biological records referenced several invasive species, but none that will impact the proposed development or are able to be controlled. Any management plan should reference invasive species and make sure they are dealt with appropriately.

Survey Constraints

5.39 This Preliminary Ecological Appraisal should not be regarded as a substitute for any additional protected species surveys recommended within this report. The ecological survey faced the following limitations:

- Optimal Botanical Survey Season: The survey was conducted during the ideal period for botanical assessment.
- Snapshot in Time: As is inherent in all ecological surveys, the assessment provides observations from a specific point in time. The natural environment is dynamic, and conditions or species presence can change.
- Some trees were in third-party ownership.

Mitigation and Adequacy:

5.40 Despite these constraints, the report emphasises that:

- The surveyor successfully recorded the dominant vegetation communities and key habitat types.
- Reasonable efforts were made to accurately describe habitats and species present.

- The findings still provide a robust and adequate basis for evaluating the site's potential ecological value, even without a complete floristic inventory.
- This section is crucial for transparency, acknowledging any limitations in the data collection while asserting the overall reliability of the assessment for its intended purpose

5.41 The proposed development has the potential to result in the loss of areas of other neutral grassland, modified grassland and ruderal vegetation together with disturbance to common wildlife during construction. Retained mature trees and associated habitats will continue to provide ecological connectivity and should be protected throughout the development. Potential impacts include:

- temporary disturbance during construction;
- habitat loss associated with development;
- increased lighting affecting bats;
- disturbance to nesting birds;
- fragmentation of habitats.

5.42 Subject to implementation of the mitigation measures recommended within this report, together with appropriate habitat retention, sensitive lighting and biodiversity enhancement, residual ecological effects are anticipated to be Minor Adverse to Negligible during construction and Neutral to Minor Beneficial during operation following habitat establishment.

6.0 Conclusion

6.1 A comprehensive desk study, UK Habitat Classification survey and preliminary assessment of protected and notable species have established a robust ecological baseline for the application site. Whilst these habitats contribute to the local ecological network, they are generally common and widespread within the local landscape.

Thames Basin Heaths SPA Avoidance and Mitigation Strategy

6.2 Residential development in Wokingham Borough is assessed under the Thames Basin Heaths SPA Avoidance and Mitigation Strategy, using Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMM),

Habitats

6.3 The majority of habitats recorded within the site are of local ecological value and do not represent habitats of national or international importance.

6.4 A Construction Environmental Management Plan (CEMP: Biodiversity) should be prepared before the commencement of development. The CEMP should set out the measures required to avoid, minimise and manage potential effects on statutory designated sites, and ecological features during the construction phase.

6.5 A Biodiversity Impact Assessment should be completed using the latest Statutory Biodiversity Metric to quantify baseline and post-development biodiversity units and demonstrate compliance with the statutory requirement to achieve a minimum 10% Biodiversity Net Gain under the Environment Act 2021. The assessment should inform the final layout and identify any necessary on-site or off-site habitat creation and long-term management requirements.

Protected Species

6.6 Habitats for protected species were evaluated for their likelihood of providing shelter, roosting, foraging, basking and nesting habitat.⁴ Bats, hedgehogs and breeding birds require further consideration. The likelihood of other protected species is negligible, and no further consideration is needed.

Bats

6.7 All trees proposed for removal or likely to be directly affected by the development should be subject to a detailed ground-based Preliminary Roost Assessment (PRA). Where potential roost features are identified, further surveys should be undertaken in accordance with current Bat Conservation Trust guidance.

6.8 Existing bat activity records and the findings of any additional bat surveys should inform a site-wide Lighting Strategy prepared in accordance with BCT Guidance Note 08/23 – Bats and Artificial Lighting, ensuring that retained habitats, commuting corridors and any confirmed roosts remain functionally connected.

Habitats Regulations Assessment

⁴ Ministry of Housing, Communities and Local Government (2024). *National Planning Policy Framework*.

6.9 The proposed development lies within the Zone of Influence of the Thames Basin Heaths Special Protection Area (SPA). Residential development has the potential to increase recreational pressure on this internationally designated site. A Shadow Habitats Regulations Assessment should therefore accompany the planning application to enable Wokingham Borough Council, as Competent Authority, to undertake an Appropriate Assessment under the Conservation of Habitats and Species Regulations 2017 (as amended). Appropriate avoidance and mitigation measures, including Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMM), should be secured where required.

Ecological Enhancement

6.10 Opportunities should be taken to deliver measurable ecological enhancement through the detailed design. Measures may include enhancement of native woodland edge habitat for dormice, strengthening ecological connectivity, installation of integrated bird and bat boxes, native species planting, deadwood habitat creation and long-term habitat management. These measures should contribute towards the delivery of Biodiversity Net Gain in accordance with the Environment Act 2021 and the National Planning Policy Framework.

Legislation and Planning Policy

6.11 Paragraph 194 of the National Planning Policy Framework requires planning decisions to ensure that developments protect and enhance biodiversity, applying the mitigation hierarchy where significant harm to biodiversity cannot be avoided.

6.12 In addition, the principles established within ODPM Circular 06/2005 remain relevant in relation to protected species. Paragraph 99 states:

"It is essential that the presence or otherwise of protected species, and the extent to which they may be affected by the proposed development, is established before planning permission is granted."

6.13 Accordingly, where there is a reasonable likelihood that protected species may be affected, sufficient survey information should be available before the Local Planning Authority determines the application to enable it to properly discharge its statutory duties. The recommended surveys and assessments will provide the Local Planning Authority with sufficient information to assess the likely impacts on protected species, determine whether

appropriate avoidance, mitigation or compensation measures are required, and ensure compliance with relevant wildlife legislation and planning policy. Where necessary, mitigation measures can then be secured through planning conditions, legal agreements or protected species licensing.

6.14 In determining the application, the Local Planning Authority must also have regard to its duties under Section 40 of the Natural Environment and Rural Communities Act 2006 (as strengthened by the Environment Act 2021) to conserve and enhance biodiversity, together with its responsibilities under the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended), and Section 17 of the Crime and Disorder Act 1998 to consider the prevention of wildlife crime.

6.15 Subject to implementation of the mitigation and enhancement measures outlined within this report, together with any recommended protected species surveys and the delivery of Biodiversity Net Gain, the proposed development is capable of proceeding without significant adverse ecological effects and is considered capable of complying with the Environment Act 2021, the National Planning Policy Framework and the ecological policies of Wokingham Borough Council.

7.0 Recommendations

General

7.1 The development should be designed in accordance with the mitigation hierarchy, ensuring that ecological impacts are avoided wherever practicable, minimised where unavoidable, compensated where necessary, and enhanced through the delivery of measurable biodiversity gains.

7.2 Prior to determination of the outline planning application, the recommended protected species surveys and ecological assessments should be completed to enable the Local Planning Authority to fully assess the ecological effects of the proposal and determine appropriate avoidance, mitigation and enhancement measures.

7.3 The proposed layout has been informed by the baseline ecological resource, with the retention of mature trees and opportunities for habitat enhancement considered from the earliest design stages to maximise Biodiversity Net Gain. A Biodiversity Impact Assessment should be completed using the latest Statutory Biodiversity Metric to establish baseline biodiversity value, quantify post-development biodiversity units and demonstrate the delivery of the statutory minimum 10% Biodiversity Net Gain. A Biodiversity Gain Plan should subsequently be prepared and approved prior to the commencement of development in accordance with the Environment Act 2021.

Mitigation Hierarchy

7.4 The detailed design of the development should apply the mitigation hierarchy throughout the design process by:

- avoiding impacts on the highest-value habitats and ecological features wherever reasonably practicable;
- minimising unavoidable impacts through sensitive design, retention of existing habitats and appropriate buffer zones;
- compensating for any unavoidable residual impacts through habitat creation or restoration; and
- providing additional ecological enhancements that contribute towards long-term biodiversity recovery and Biodiversity Net Gain.

Habitat Protection

Construction

7.5 A Construction Environmental Management Plan (CEMP: Biodiversity) should be prepared prior to commencement of development. The CEMP should include measures for the protection of designated sites, mature trees, protected species and retained ecological corridors throughout the construction period.

Trees

7.6 All retained trees, woodland and hedgerows should be protected throughout construction in accordance with BS 5837:2012, with Root Protection Areas clearly identified and protected before any works commence.

Vegetation Clearance

7.7 Vegetation clearance should, wherever possible, be undertaken outside the main bird nesting season (generally March to August inclusive). Where this is not possible, a suitably qualified ecologist should undertake a pre-commencement nesting bird inspection immediately prior to works, with any active nests retained until the young have successfully fledged.

Lighting

7.8 A site-wide sensitive lighting strategy should be prepared in accordance with Bat Conservation Trust Guidance Note 08/23 – Bats and Artificial Lighting. Lighting should minimise light spill onto retained woodland, hedgerows, scrub, mature trees and ecological corridors to maintain suitable commuting and foraging habitat for bats and other nocturnal wildlife.

Ecological Enhancements

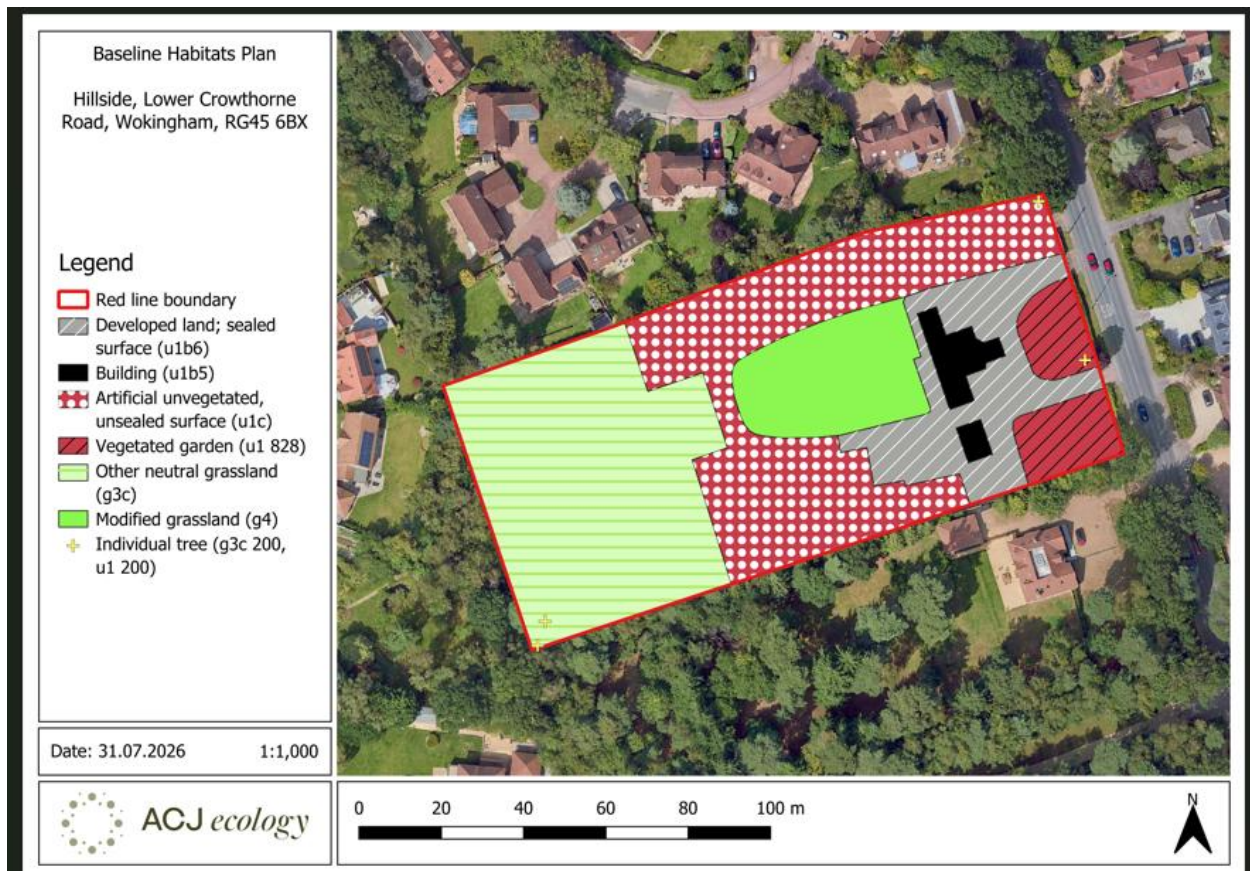
Birds and Bats

7.9 The detailed design should incorporate a range of integrated bird and bat features, including built-in nest bricks and bat roost features. Particular consideration should be given to the incorporation of swift nesting bricks within appropriate elevations of new dwellings. Enhancement measures should accord with current best practice, including *Designing for Biodiversity: A Technical Guide for New and Existing Buildings* (RIBA Publishing) and relevant British Standards.

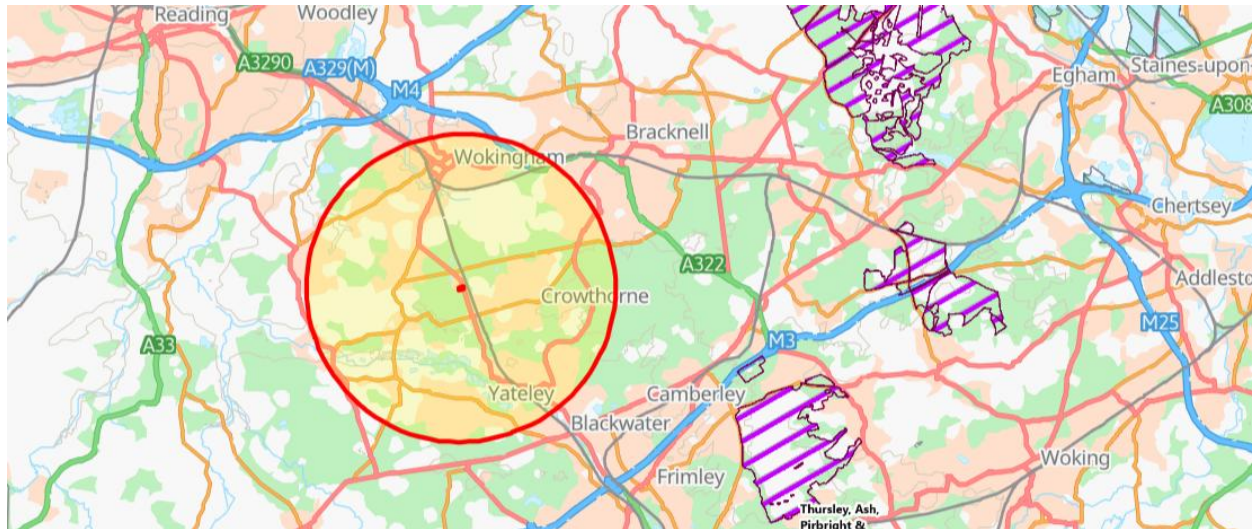
Hedgehogs

7.10 The development should incorporate measures to improve habitat connectivity for hedgehogs, including 13 cm × 13 cm hedgehog access gaps within boundary fencing where appropriate, together with log piles, native planting and other habitat features to increase shelter and foraging opportunities. The design should ensure these measures remain compatible with any badger mitigation requirements.

Map 1: Habitat Classification



Appendix 8.1: Special Protection Area (SPA)/Special Area of Conservation (SAC) within 5km:



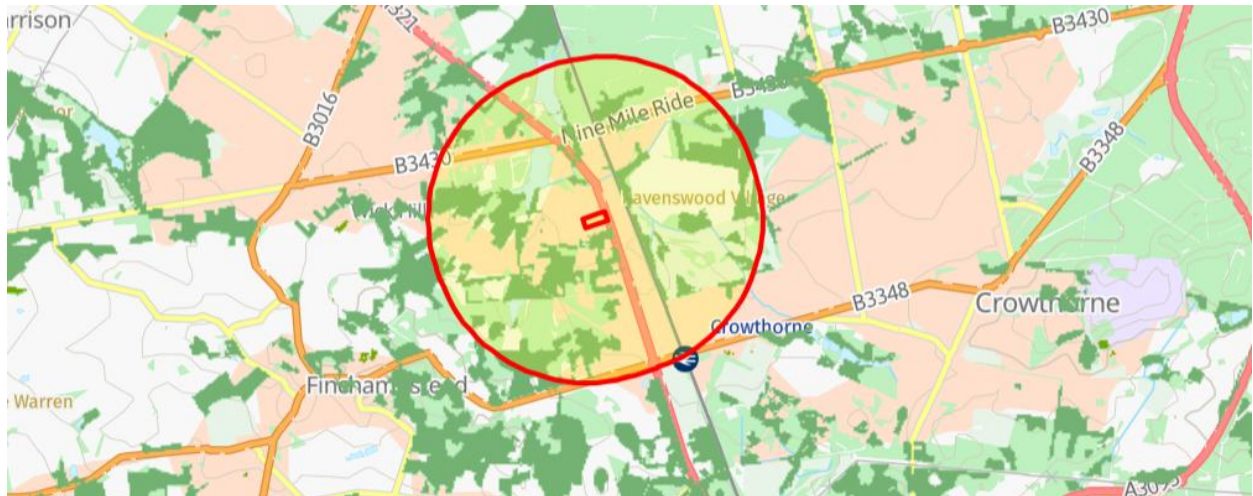
Appendix 8.2: Site of Special Scientific Interest (SSSI) within 2km:



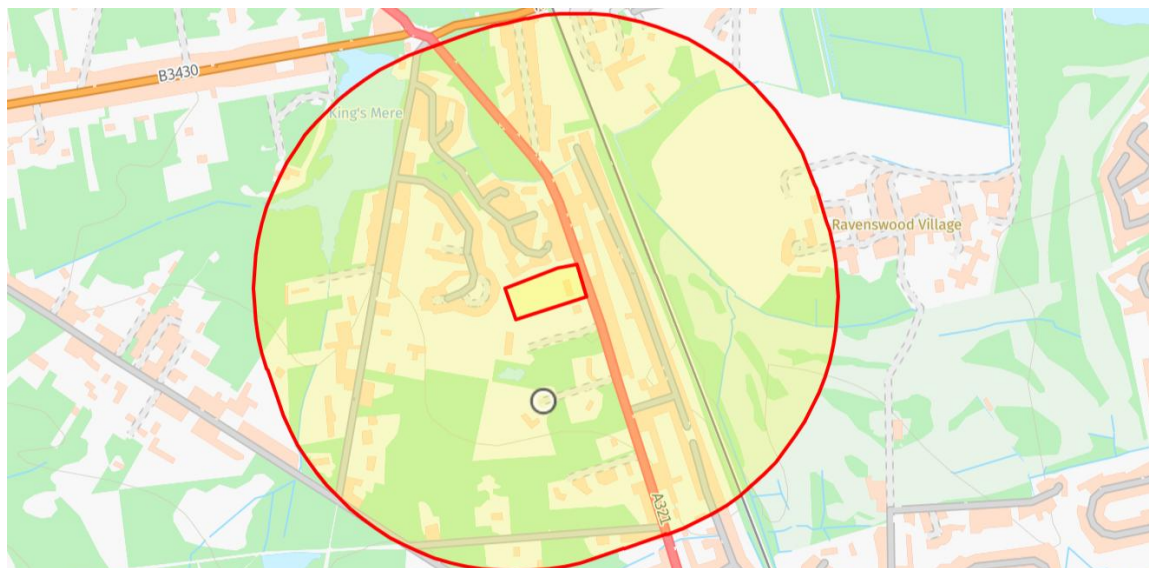
Appendix 8.3: Ancient Semi-Natural Woodland within 1km:



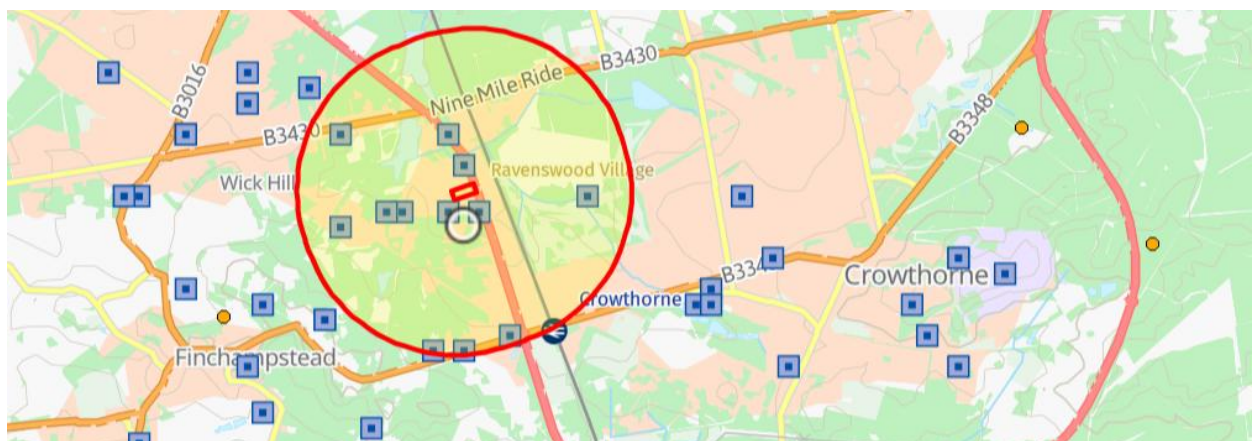
Appendix 8.4: Priority Habitat within 1km:



Appendix 8.5: Ponds within 500 metres:



Appendix 8.6: European Protected Species (EPS) licences had been granted within a 1km radius



Appendix 8.8: Photographs



