



**The Coach House  
North Court  
The Ridges  
Finchampstead  
Wokingham  
Berkshire  
RG40 3SH**

**Preliminary Ecological  
Appraisal**

**Luscinia Ecology  
On behalf of  
John Jones**



## Document Properties

Reference	Revision	Date	Author	Reviewer
LUS25003 PEA	Draft	18/08/2025	Greg Nightingale	Greg Nightingale
LUS25003 PEA	Submission	02/10/2025	Mungo Nash	Mungo Nash



# Contents

<b>Chapter 1: Summary</b>	<b>1</b>
<b>Chapter 2: Introduction</b>	<b>2</b>
<b>Chapter 3: Method</b>	<b>5</b>
<b>Chapter 4: Results and Assessment</b>	<b>9</b>
<b>Chapter 5: Discussion</b>	<b>23</b>
<b>Appendix A: Survey Methods</b>	<b>i</b>
<b>Appendix B: UK Habitat Classification Plan</b>	<b>viii</b>
<b>Appendix C: Legislation and Planning Policy</b>	<b>ix</b>



# Chapter 1: Summary

- 1.1 This report will be submitted alongside a planning application for the “*erection of 1 new dwelling with associated parking and landscaping*” at The Coach House, North Court, The Ridges, Finchampstead, Wokingham, Berkshire, RG40 3SH.
- 1.2 This report sets out a Preliminary Ecological Appraisal of the Proposed Development at the Site.
- 1.3 A data search and ecological surveys have been completed to determine the Proposed Development’s impact, inform the Proposed Development’s iterative design, (including implementation of the Mitigation Hierarchy), and to ensure the required ecological mitigation and compensation is embedded into the Proposed Development’s design, or can be delivered via suitably worded planning conditions.
- 1.4 The Proposed Development is within the Zone of Influence of Thames Basin Heaths Special Protection Area, and the Applicant will be required to contribute to strategic measures to protect the Special Protection Area.
- 1.5 The Proposed Development avoids the loss of habitats of ecological importance via the retention of the mature trees and woodland present within the Site.
- 1.6 It appears that trees have previously been removed from the area. To compensate and re-establish canopy cover, the following we advise:
  - Seed new lawn areas with a species-rich mow-tolerant seed mix
  - Plant native trees within the garden areas
  - Enter the retained woodland, into a management and monitoring plan to compensate for losses.
- 1.7 As a precaution, measures to protect [REDACTED] bats, birds, hazel dormouse, hedgehog, and reptiles have been set out. In addition, ecological enhancements for bats and birds have been outlined.
- 1.8 The landscaping and habitat provision should be secured by a suitably worded planning condition for a Soft Landscape Plan (or similar). The woodland management and monitoring should be secured by a by a suitably worded planning condition for a Woodland Management and Monitoring Plan.
- 1.9 The Applicant is aware of, and has committed to, all the mitigation, compensation, and enhancement measures set out within this report.
- 1.10 Based on the results from the survey, context of the Site, and overall low ecological importance of the Site, this report is valid for a period of 18 months (i.e., the 08/01/27).



## Chapter 2: Introduction

2.1 This report will be submitted alongside a planning application for the “*erection of 1 new dwelling with associated parking and landscaping*” at The Coach House, North Court, The Ridges, Finchampstead, Wokingham, Berkshire, RG40 3SH. This report sets out a Preliminary Ecological Appraisal of the Proposed Development at the Site.

### Site Description

2.2 The Site consists of an existing wooded garden, accessed via a gravel track from the B3348 to the south (referred to as ‘the Site’ throughout this report). The Site is approximately 0.495ha in size and located at National Grid Reference: SU 80074 63752. The Site is immediately surrounded by existing areas of residential development, with wooded gardens, along with an area of grassland to the north. The wider landscape is broadly similar, with residential development, wooded gardens, woodland, and grassland expanses to the north (**Figure 1**).



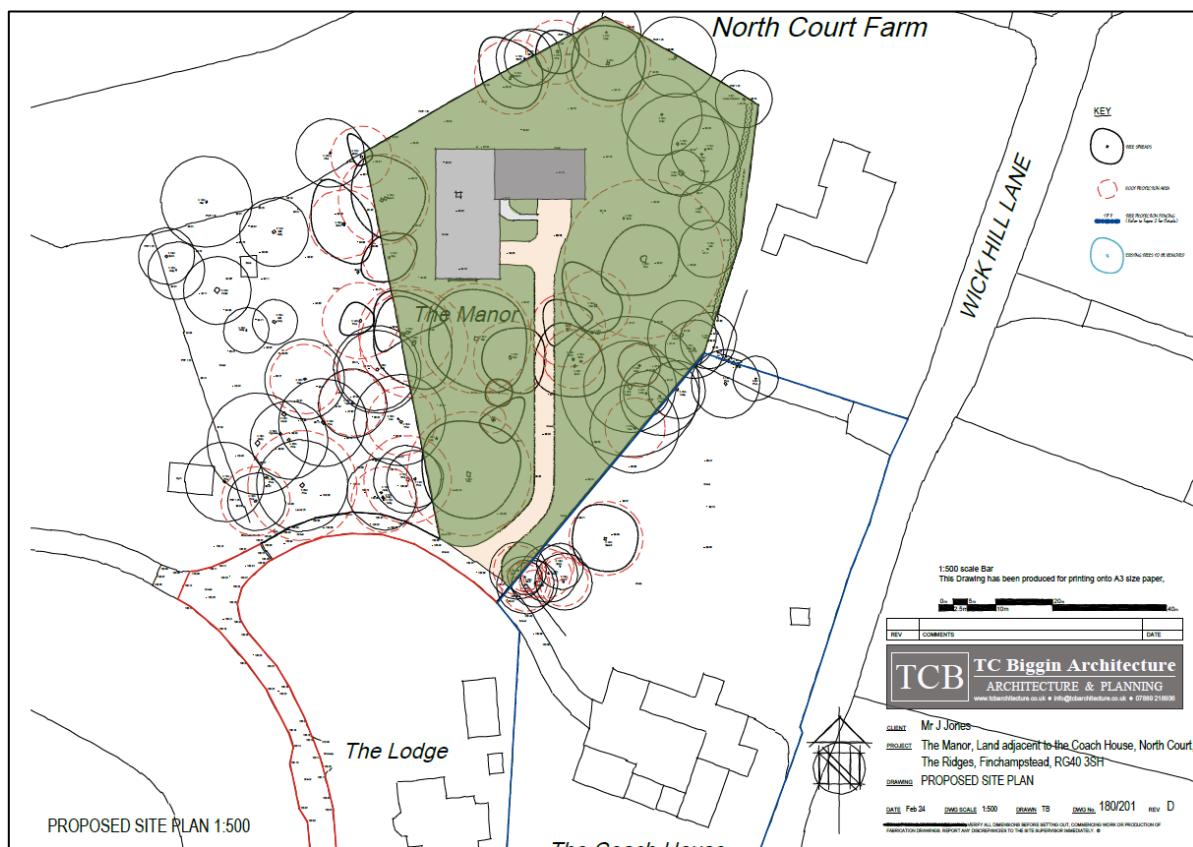
**Figure 1: Aerial image – Site boundary in red line**

### Proposed Development

2.3 This report will be submitted alongside a planning application for the “*erection of 1 new dwelling with associated parking and landscaping*” (referred to as the ‘Proposed Development’ throughout this report). Access will be via the existing gravel track, which leads to the B3348 to the south. The Proposed Development will result in the removal



of the habitats within the Site and replacement with buildings and hardstanding. The existing areas of woodland will be retained. **Figure 2** shows the Proposed Development.



**Figure 2: The Proposed Development**

## Purpose of this report

2.4 The purpose of this Preliminary Ecological Appraisal (PEA) is to provide sufficient information for the Local Planning Authority to fully assess and understand the ecological outcomes of the Proposed Development. The key objectives of this PEA are to:

- Outline the planning, legal, and landscape context of the Site.
- Ascertain the ecological importance of the Site by identifying and assessing the main habitats and plant communities within the Site and determining the presence/likely absence of protected species within the Site.
- Characterise and assess the ecological impacts/likely ecological impacts of the Proposed Development on the ecological importance of the Site.
- Follow the Mitigation Hierarchy to:
  - Demonstrate how the design of the Proposed Development has been shaped and revised since inception to minimise ecological impacts/likely ecological impacts (avoidance).

- Demonstrate the Proposed Development's commitment to mitigation, compensation, offsetting, and enhancement in relation to protected and priority habitats and protected, priority and notable species.
- Outline the requirements for future monitoring of ecological receptors, impacted/likely impacted by the Proposed Development.



## Chapter 3: Method

3.1 This report was written with regard to the CIEEM Guidelines on: Ecological Report Writing<sup>1</sup>, Preliminary Ecological Appraisal<sup>2</sup>, and Ecological Impact Assessment<sup>3</sup>, as well as the British Standard on the Biodiversity Code of Practice for Planning and Development Biodiversity<sup>4</sup> and Writing Effective Ecological Reports<sup>5</sup>.

### Zone of Influence

3.2 The ecological impacts / likely ecological impacts of the Proposed Development will be largely confined to the construction zone within the Site itself and would include the loss, degradation, and fragmentation of habitats, along with ecological impacts (e.g., killing and injury) on protected, priority and notable species, including the loss of ecological functions such as (commuting, hibernation, breeding opportunities). In addition, consideration has been given to the following potential impacts, which may spread beyond the Site:

- Disruption to species and habitats within receiving range of dust, light, noise and pollution during demolition, construction, and occupation of the Proposed Development.
- Disturbance to habitats/species within walking/driving distance of the new residents of the Proposed Development once the Proposed Development is completed.

3.3 The surveys of the Site and search buffers used within the data search are sufficient to capture the full extent of the Zone of Influence (ZoI) of the Proposed Development.

### Data Search

3.4 A review of existing ecological knowledge of the Site and its surrounding area was undertaken on 18/08/2025. The data search included the following:

- A 2km radius around the Site for statutory designated nature conservation sites<sup>6</sup>.
- A 1km radius around the Site for granted European Protected Species Licences (EPSL), great crested newt class survey licence returns, and great crested newt pond surveys 2017 - 2019<sup>6</sup>,

<sup>1</sup> CIEEM (2015). *Guidelines on Ecological Report Writing*. Chartered Institute for Ecology and Environmental Management, Winchester.

<sup>2</sup> CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal. 2nd Edition*. Chartered Institute for Ecology and Environmental Management, Winchester.

<sup>3</sup> CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, and Coastal and Marine*. Chartered Institute for Ecology and Environmental Management, Winchester.

<sup>4</sup> BSI (2013). BS 42020:2013: *Biodiversity: Code of Practice for Planning and Development*. British Standards Institution, Bristol.

<sup>5</sup> Dean M. (2021). *Writing Effective Ecological Reports: A Guide to Principles and Practice*. Pelagic Publishing, Exeter.

<sup>6</sup> Multi-Agency Geographic Information for the Countryside (MAGIC) maps For England and Wales. Available online at: <https://magic.defra.gov.uk/home.htm>



- A 1km data search from Thames Valley Environmental Records Centre (TVERC) for protected and notable species and non-statutory sites<sup>7</sup>.
- A 1km review of the habitats within the local landscape, habitat designations, and their suitability to support protected and notable species using aerial imagery<sup>8</sup>.

## **Field Surveys**

3.5 The following surveys were undertaken at the Site:

- Extended UK Habitat Classification Survey<sup>9</sup>
- Bats: Ground Level Tree Assessment (GLTA)<sup>10</sup>
- Consideration of suitability for protected and notable species
- Incidental observations (All dates on Site)

3.6 The surveys were completed on 08/07/2025 by Greg Nightingale. A detailed method for each of the surveys listed above is presented within that **Appendix A**.

## **Contributor information**

3.7 The surveys and assessments were designed and led by Greg Nightingale. The PEA was written and reviewed by Greg Nightingale. **Table 1** outlines the relevant experience of the assessment contributor.

<sup>7</sup> Thames Valley Environmental Records Centre (TVERC), received 22/07/2025.

<sup>8</sup> Google Earth. Available online at: <https://earth.google.com/web/>

<sup>9</sup> UKHab Ltd (2023). *UK Habitat Classification Version 2.0*. UKHab Ltd, Stockport.

<sup>10</sup> Collins, J. (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)*. The Bat Conservation Trust, London.



Contributor	Experience
Greg Nightingale BSc (Hons) MCIEEM	<p>Greg is the Director of Luscinia Ecology (A CIEEM Registered Practice) with over 11 years of experience in ecology and environmental management in the private sector. Greg has worked extensively within the planning system, undertaking protected species surveys, habitat surveys and Ecological Impact Assessments as well as providing advice on habitat management and mitigation and enhancement design.</p> <p>He has a comprehensive understanding of environmental policy and the current and emerging challenges facing the environment and how these challenges are managed within the planning sector. Through an understanding of good practice, planning policy, the ecology of protected habitats and species, and environmental impact pathways, Greg provides robust ecological advice that is cognisant of wider planning and legal requirements.</p> <p>He is experienced in UKHabs Classification system and the Phase 1 Habitat classification. He has designed, undertaken, and reported on numerous habitat and protected species surveys (including badger surveys, bat emergence/re-entry surveys, bat activity surveys, and hazel dormouse surveys), including bespoke survey design and the implementation of numerous protected species mitigation strategies.</p> <p>Greg is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He holds a level two Bat Licence, a level one Great Crested Newt Licence, and a NPTC (CS38) Tree Climbing and Aerial Rescue qualification. In addition, he has been named on badger mitigation licences and has completed courses in barn owls, botany, breeding birds, and hazel dormouse.</p>

**Table 1: Contributor experience**

## Assumptions, Clarifications, and Limitations

### **Assumptions**

3.8 None.

### **Clarifications**

3.9 Prior to the ecological survey, it appeared that trees had been removed. These areas are mapped as bare ground, reflecting their current appearance. Some additional trees appeared to have been removed from the grassland area and now formed circular patches of bare ground. These circular patches of bare ground have not been mapped.

### **Limitations**

3.10 The limitations associated with the survey work, data analysis, and reporting are set out within **Table 2**, along with an analysis of the effect of the limitation on the validity and robustness of the decision making within this report.



Limitation	Analysis of effect
The desk study does not produce a comprehensive list of plants and animals as this is limited by factors that influence their presence (e.g., activity and dormancy periods), along with varied recording effort across the landscape.	The species records of the desk study reflect survey effort and therefore the data returned from each request is variable across the UK. As a result, the data search data has not been used to rule out the presence of protected species and habitats within and adjacent to the Site.
Measurements within this report are approximate – The mapping of baseline habitats and Proposed Development plans has relied upon the georeferencing of plans provided by the client.	The mapping of baseline habitats and Proposed Development plans has relied upon the georeferencing of plans provided by the project team. The process of georeferencing and mapping of polygon habitats at a fine scale may result in minor deviations from actual and proposed measurements. This has been controlled for via the use of advanced digitising tools and given the scale of the proposals any deviations in spatial areas or point locations are sufficiently minor to be inconsequential and will be subsumed within precautionary rounding.

**Table 2: Summary of limitations and their effect**



# Chapter 4: Results and Assessment

## Data Search

### The Local Landscape Context

4.1 The Site is immediately surrounded by existing areas of residential development, with wooded gardens, along with an area of grassland to the north. The wider landscape is broadly similar, with residential development, wooded gardens, woodland, and grassland expanses to the north. The key green infrastructure within the local landscape includes the surrounding woodland, tree lines, and a dense area of woodland to the east. The key blue infrastructure in the local area was limited to two drains to the north and west respectively, along with two ponds which formed part of the northern drain. The nearest of these features was the pond and drain system, which was located 45m to the north of the Site.

### Statutory Designated Sites

4.2 Statutory designated sites are the most significant ecological receptors and include Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites, which are all of **International Importance**, and Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs), which are of **National Importance**.

4.3 Local Nature Reserves (LNRs) are notified under Section 21 of the National Parks and Access to the Countryside Act 1949 (as amended) by local authorities and are of **Local Importance**. They are intended for public appreciation and enjoyment of wildlife. The LNR designation does not afford special protection; however, LNRs are protected under legislation and planning policy.

4.4 **There were no Statutory Designated Sites within 2km of the Site.**

4.5 **Thames Basin Heaths SPA was directly scoped into the assessment given the known requirements for strategic mitigation around this SPA.** Thames Basin Heaths SPA is designated for supporting Annex 1 species:

- Nightjar *Caprimulgus europaeus*
- Woodlark *Lullula arborea*
- Dartford warbler *Sylvia undata*

### Non-Statutory Designated Sites

4.6 In Berkshire, Local Wildlife Sites (LWSs) are designated. LWSs are of **Local Importance**. Biodiversity Opportunity Areas (BOA) are also mapped. These seek to deliver strategic and joined up nature conservation. The non-statutory designated sites within returned by the desk study are shown in **Table 3**.



Site Name	Reason for designation	Distance and direction
East Court Woods LWS	This small wood contains mainly oak <i>Quercus</i> sp. and ash <i>Fraxinus</i> sp. over a layer of hazel <i>Corylus avellana</i> coppice. Ground flora species include a number of species typical of ancient woodland.	0.42km west
Finchamstead Ridges LWS	This site is largely secondary birch <i>Betula</i> sp. and pine <i>Pinus</i> sp. woodland with some conifer plantation. There are open areas of heathland in the north of the site.	0.5km east
Simon's wood & Heath Pond LWS	Simons Wood and Heath is a National Trust nature reserve. It consists of Scots pine <i>Pinus sylvestris</i> plantation, secondary woodland, areas of heath and purple moor grass <i>Molinia caerulea</i> , a small bog pool with a fringe of mire/wet heath and a large pond. Common lizard <i>Zootoca vivipara</i> , common toad <i>Bufo bufo</i> , and palmate newt <i>Lissotriton helveticus</i> have previously been recorded in the area.	0.75km north-east
Blackwater Valley BOA	Targets and opportunities include: <ul style="list-style-type: none"> <li>Management and re-creation of grassland habitats</li> <li>Management of gravel pits and associated habitats</li> </ul>	0.77km south
Thames Basin Heaths BOA	Targets and opportunities include: <ul style="list-style-type: none"> <li>Heathland and bog restoration and management.</li> <li>Access control</li> </ul>	0.33km east

Table 3: Summary of non-statutory designated sites returned by the desk study

## Protected and Notable Species

4.7 The relevant protected species records from the data search are incorporated into the Protected and Notable Species section, below.

## Habitat Survey

4.8 The Site supported the following habitats:

- Individual trees:** Rural tree
- Urban:** Artificial unvegetated, unsealed surface
- Urban:** Bare ground
- Urban:** Vegetated garden
- Woodland:** Other woodland; Mixed

4.9 All the habitats and features described are shown on the Extended UK Habitat Classification Plan at **Appendix B**.

### Individual trees: Rural tree

4.10 There were two individual mature trees within the Site; a copper beech *Fagus sylvatica f. purpurea* and a holm oak *Quercus ilex* (**Photograph 1**). The trees were located in the north-west of the Site forming a group with other trees located offsite. The trees



appeared to be in good health with full canopies and no obvious signs of disease or decay. The **trees** were of **Site Importance**.



**Photograph 1. Copper beech (right) and holm oak (left)**

#### **Urban: Artificial unvegetated, unsealed surface**

4.11 The Site was access via a long gravel track (**Photographs 2 – 4**). The **track** was of **Negligible Importance**.





**Photograph 2. Gravel track, Entrance**



**Photograph 3. Gravel track, centre**





**Photograph 4. Gravel track, at new access point to Site**

#### **Urban: Bare ground**

4.12 There were various areas of bare ground within the Site which appeared to relate to recent tree works (**Photographs 5 and 6**). The **bare ground** was of **Negligible Importance**.



**Photograph 5. Bare ground at the northern end of the gravel track**





**Photograph 6. Bare ground in the north of the Site**

### **Urban: Vegetated Garden**

4.13 The Site forms part of an existing garden. The grassland forming a lawn / recreational area. The grassland appeared, short, well maintained, and general compacted via mowing (**Photographs 7 and 8**). No thatch layer or tussocks were present and habitat complexity at the ground level was poor. Areas of bare ground were present as described above. Areas of tracking and smothering by wood chippings were also present. A simply wooden log store was present in the far north of the garden. This was stacked with logs.

4.14 Species diversity was low, and several areas were entirely formed of perennial rye grass *Lolium perenne*. The grassland includes very few forb species. Wider species recorded in the area included: annual meadow grass *Poa annua*, bird's-foot trefoil *Lotus corniculatus*, creeping buttercup *Ranunculus repens*, ground elder *Aegopodium podagraria*, herb robert *Geranium robertianum*, nettle *Urtica dioica*, self-heal *Prunella vulgaris*, sorrel *Rumex acetosa*, smooth meadow grass *Poa pratensis*, turf moss *Bryophyta spp.*, white clover *Trifolium repens*, and Yorkshire fog *Holcus lanatus*.

4.15 The **vegetated garden** was of **Negligible Importance**.





**Photograph 7. Vegetated garden / lawn near end of gravel track**



**Photograph 8. Vegetated garden, northern area**

### **Woodland: Other woodland; Mixed**

4.16 There were two areas of woodland within the Site (**Photographs 9 and 10**). These were similar in character and appears and are therefore described collectively. These areas, and the grassland glade within the centre of the woodland are listed as Priority Habitat (Deciduous Woodland) on MAGIC<sup>6</sup>.



- 4.17 The tree species forming the woodland included: English oak *Quercus robur*, hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, holly *Ilex aquifolium*, poplar *Populus spp.*, silver birch *Betula pendula*, and yew *Taxus baccata*.
- 4.18 The understorey was formed by holly, laurel *Prunus laurocerasus*, and rhododendron *Rhododendron ponticum*. The understorey in the southern part of the woodland was predominately formed of laurel and rhododendron.
- 4.19 The interior of the woodland dark, with the dense foliage of the laurel and rhododendron limiting light reaching the ground level and their associated leaf fall smothering the ground. Soft shield fern *Polystichum setiferum* and foxglove *Digitalis purpurea* were recorded at the ground level. No obvious signs of regeneration was recorded, aside from, occasional saplings of hawthorn and holly. Some deadwood was present along with old tree stumps. Rabbit warrens were also present.
- 4.20 Areas of grass cuttings, wood chippings, old log piles and stacked deadwood, waste materials were present along the edges of the woodland.
- 4.21 The **woodland was of Local Importance**.



**Photograph 9. Woodland in the east**





**Photograph 10. Woodland to the rear**

## **Protected and Notable Species**

4.22 Based upon the nature, location, and characteristics of the Site and adjoining landscape, the suitability of the Site to support the following species/species groups is outlined below:

- Amphibians, including great crested newt *Triturus cristatus*
- [REDACTED]
- Bats
- Birds
- Hazel dormouse *Muscardinus avellanarius*
- Hedgehog *Erinaceus europaeus*
- Reptiles

4.23 If a species or species group is not listed above, then it has been scoped out of this assessment based upon the nature, location, and characteristics of the Site and adjoining landscape.

### **Amphibians**

4.24 There were no granted great crested newt EPSCs, positive great crested newt pond surveys (2017 – 2019) or great crested newt class survey licence returns within 1km of the Site. There was one great crested newt pond survey (2017 – 2019) associated

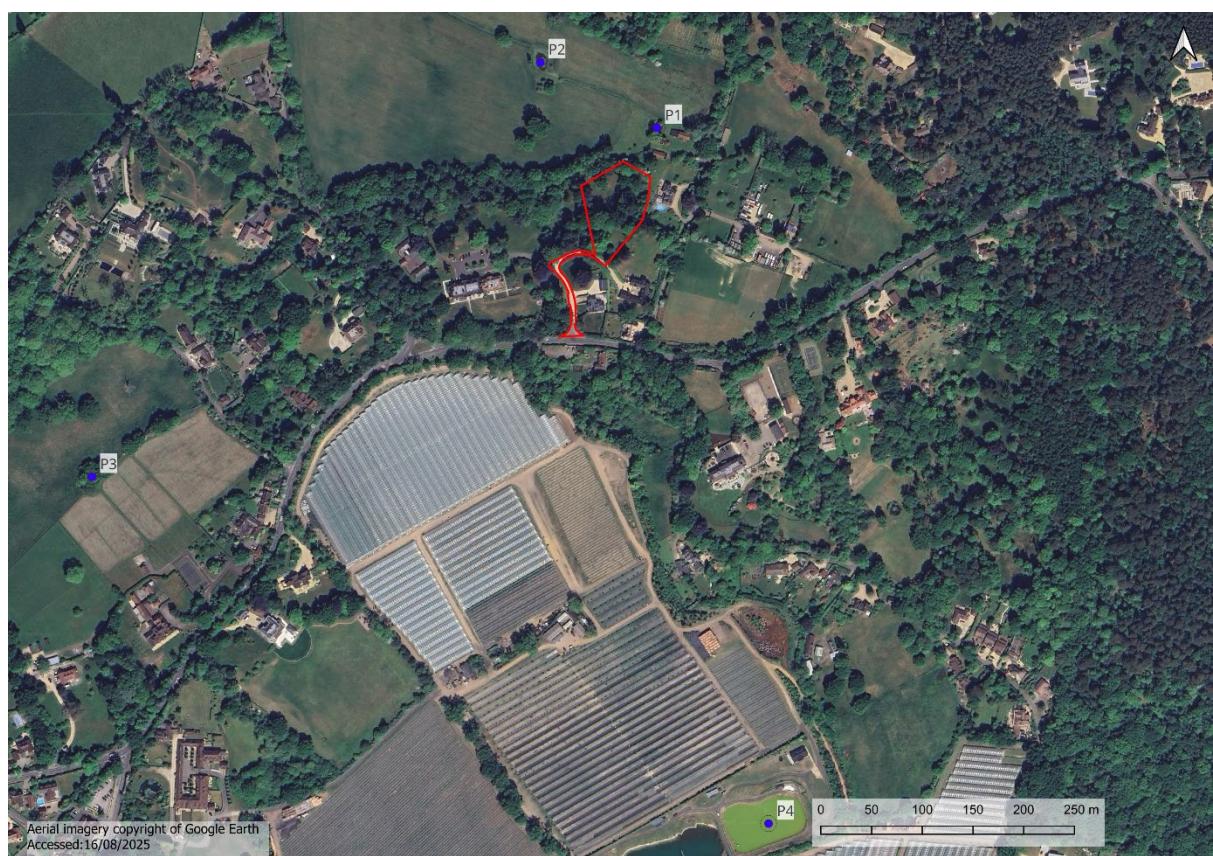


with a pond location 40m to the north-east of the Site, which confirmed great crested newts were likely absent.

4.25 TVERC returned six records of amphibians, including:

- Common frog *Rana temporaria*: one record on 21/03/2012, located 1km to the south-east
- Common toad: two records:
  - five adults on 21/03/2012, located 1km to the south-east
  - one record on 20/03/2012, located 1km to the south-east
- Palmate newt *Lissotriton helveticus*: three records:
  - one adult on 02/02/2020, located 0.9km east
  - 18 adults (21/03/2012, located 1km to the south-east
  - 12 adults (11/05/2014, located 1km to the south-east

4.26 A review of aerial photography and OS Mapping confirmed that there were four ponds within 500m of the Site (**P1 – P4**; **Figure 3**).



**Figure 3: Pond Location Plan**

4.27 **P3** and **P4** are significantly isolated from the Site by distance and development. These ponds will not be considered further. **P1** and **P2** are located within 120m of the Site and are connected to the Site via grassland and woodland. **P1** has previously been



subject to eDNA testing, which confirmed great crested newts are likely absent from **P1**. It is reasonable to assume that any amphibians present within **P1** and **P2**, could commute from the ponds and enter the Site.

4.28 There were no breeding opportunities for amphibians within or adjacent to the Site. The grassland habitats within the Site are of low suitability for amphibians during their terrestrial phases. The woodland habitats are of moderate suitability for amphibians during their terrestrial phases.

4.29 Given the spatial arrangement of the Site, **P1**, and **P2**, the Site is not located within the commuting pathway between a network ponds. It is reasonable to assume that any amphibians present within **P1** and **P2** are unlikely to enter the Site.

4.30 The likelihood of amphibians being present within the Site is negligible. The **amphibian interest** was of **Negligible Importance** and amphibians will not be discussed further within this report.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## Bats

### Data search

4.34 There were nine granted EPSL for bats within 1km of the Site. All but one of these licences related to the damage or destruction of resting and breeding places of brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, and soprano pipistrelle *Pipistrellus pygmaeus*. The remaining record related to the destruction of a resting place for Nathusius's pipistrelle *Pipistrellus nathusii*. None of the records were located within the Site.

4.35 The data search returned 602 records of bats, including:

<sup>11</sup> Direct access into the land to the north was not present, but the ground level and topography could readily be viewed.



- at least eight species: brown long-eared bat, noctule *Nyctalus noctula*, common pipistrelle, Daubenton's bat *Myotis daubentonii*, Nathusius's pipistrelle, serotine *Eptesicus serotinus*, soprano pipistrelle, and Natterer's bat *Myotis nattereri*.
- 208 roosts, including roosts of brown long-eared bat, common pipistrelle, Daubenton's bat, Nathusius's pipistrelle, Natterer's bat, serotine, and soprano pipistrelle.

### Ground Level Tree Assessment

4.36 The copper beech and the holm oak did not support Potential Roost Features that bats could use to roost. The woodland contained trees which were suitable for bats to use to roost. A full ground level tree assessment of these trees was not attempted. However, there were no obvious features along the woodland edge.

### Flight-paths and Foraging Habitat

4.37 The Site is immediately surrounded by existing areas of residential development, with wooded gardens, along with an area of grassland to the north. The wider landscape is broadly similar, with residential development, wooded gardens, woodland, and grassland expanses to the north. The key green infrastructure within the local landscape includes the surrounding woodland, tree lines, and a dense area of woodland to the east. The key blue infrastructure in the local area was limited to two drains to the north and west respectively, along with two ponds which formed part of the northern drain. The nearest of these features was the pond and drain system, which was located 45m to the north of the Site.

4.38 The Site supports woodland, and this woodland forms a larger block of woodland which in turn, forms a landscape scale linear feature, leading to wider areas of the local landscape. **The Site aligns with High Suitability Flight-path and Foraging Habitat:**

*"Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge.*

*High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.*

*Site is close to and connected to known roosts."*

### Nesting birds

4.39 TVERC returned 17,267 records of 127 bird species. This included 39 species listed on schedule 1 of the Wildlife and Countryside Act: barn owl *Tyto alba*, bittern *Botaurus stellaris*, black-tailed godwit *Limosa limosa*, Cetti's warbler *Cettia cetti*, common scoter *Melanitta nigra*, curlew *Numenius arquata*, Dartford warbler, firecrest *Regulus ignicapilla*, garganey *Spatula querquedula*, goldeneye *Bucephala clangula*, greenshank *Tringa nebularia*, hobby *Falco subbuteo*, kingfisher *Alcedo atthis*, little ringed plover *Charadrius dubius*, mediterranean gull *Ichthyaetus melanocephalus*, merlin *Falco columbarius*, nightingale *Luscinia megarhynchos*, osprey *Pandion*



*haliaeetus*, peregrine *Falco peregrinus*, pied flycatcher *Ficedula hypoleuca*, red kite *Milvus milvus*, redshank *Tringa totanus*, ring ouzel *Turdus torquatus*, ruff *Calidris pugnax*, scaup *Aythya marila*, sedge warbler *Acrocephalus schoenobaenus*, shelduck *Tadorna tadorna*, short-eared owl *Asio flammeus*, snipe *Gallinago gallinago*, spotted flycatcher *Muscicapa striata*, spotted redshank *Tringa erythropus*, starling *Sturnus vulgaris*, stone curlew *Burhinus oedicnemus*, swallow *Hirundo rustica*, whimbrel *Numenius phaeopus*, woodcock *Scolopax rusticola*, woodlark, and yellow-browed warbler *Phylloscopus inornatus*.

4.40 The Site supports trees and woodland, which are suitable for birds to use to nest. No signs of nesting were observed but it is expected that the woodland at least supports a small number of nests each year of common and widespread species.

4.41 The **nesting bird interest** was of **Site Importance**.

### Hazel dormouse

4.42 TVERC did not return records of hazel dormouse.

4.43 The woodland was dense, well connected to the wider landscape, and supported tree and shrub species of known importance to hazel dormouse. Areas of ancient woodland were present within the local landscape.

4.44 The **hazel dormouse interest** was of **Site Importance**.

### Hedgehog

4.45 TVERC returned two records of hedgehog. These were located 0.8km to the south and 0.9km to the north.

4.46 It is expected that hedgehogs could be present within the local area and may occasionally enter the Site to commute, forage, and rest. The woodland provided sufficient cover and features for hedgehogs to use to hibernate.

4.47 The **hedgehog interest** was of **Site Importance**.

### Reptiles

4.48 TVERC returned 16 records of reptiles, summarises as follows:

- adder *Vipera berus* (nine records)
- common lizard: (four records)
- grass snake *Natrix helvetica*: (two records)
- slow-worm *Anguis fragilis*: (two records)

4.49 There was one record, located 300m to the north-west, which was of slow worm. The remaining records were located over 500m to the north-east, east, south-east, and south.



4.50 The Site itself is predominantly formed of habitats which are not suitable for reptiles, including dense woodland and well-maintained grassland. Nevertheless, the woodland edge and margins of the Site may occasionally support individual reptiles. These areas supported grass cuttings, log piles, and stacked logs. These areas provided suitable opportunities for basking and hibernation.

4.51 The **reptile interest** was of **Site Importance**.

## Results Conclusion

4.52 A summary of the results is presented in **Table 4**. Where further consideration is required, this is addressed and resolved in the following chapters of this report.

Ecological Feature	Ecological Importance / Suitability*	Further consideration required?	
Thames Basin Heaths SPA	International	Yes	
East Court Woods LWS	Local		
Finchamstead Ridges LWS			
Simon's wood & Heath Pond LWS			
Blackwater Valley BOA	N/A		
Thames Basin Heaths BOA			
Individual trees: Rural tree	Site	Yes	
Urban: Artificial unvegetated, unsealed surface	Negligible	No	
Urban: Bare ground			
Urban: Vegetated garden			
Woodland: Other woodland; Mixed	Local	Yes	
Amphibians	Negligible	No	
Bats: Roosts: Trees	No (None)*	No	
Bats: Roosts: Woodland	Unknown*	Yes	
Bats: Flight-paths and foraging habitat	High*		
Birds	Site		
Hazel dormouse			
Hedgehog			
Reptiles			

**Table 4: Summary of Results**



# Chapter 5: Discussion

- 5.1 The report follows the mitigation hierarchy. The avoidance measures and the embedded mitigation are set out. Followed by additional mitigation measures to minimise impacts further and then compensation to address any remaining impacts. Lastly, ecological enhancements are provided.
- 5.2 The following discussion and assessment have been provided to ensure full compliance with legislation and both local and national planning policy set out in **Appendix C**.
- 5.3 This report is valid provided the plans shown in **Figure 2** do not change.
- 5.4 All details set out in this Chapter are deliverable with the Proposed Development and have been approved by the Applicant.

## Embedded Mitigation

- 5.5 Using the design principles and layout within **Figure 2**, this section considers the embedded mitigation associated with the Proposed Development.
- 5.6 Upon instruction of an ecologist, the Proposed Development has inherently avoided impacts on ecology and biodiversity via the retention of the woodland and trees. This has ensured that the direct loss of any bat roosts within the woodland will not occur.
- 5.7 The Proposed Development will not remove any trees or impact any green or blue infrastructure.

## Effects of the Proposed Development

- 5.8 Using the design principles and layout within **Figure 2**, this section concerns an assessment of ecological effects resulting from the Proposed Development. In the absence of mitigation, the following effects have been identified:
  - The removal of garden (grassland)
  - The clearance of the Site and construction process potential to kill/injure [REDACTED] nesting birds and their young, hazel dormouse, hedgehogs, and reptiles.
  - There will be increases in light spill during construction and occupation, which may disrupt wildlife, including bat flight-paths and foraging habitat.
  - There will be pollution during construction in the form of dust, noise, chemical, and litter.
  - There will be an increase in residential units, leading to increases in recreation and human-related effects in the local area.



## Site Wide Mitigation

5.9 Care will be taken during clearance/groundworks to ensure wildlife is not harmed. In the event a protected species is found when an ecologist is not in attendance, works will stop, and an ecologist will be contacted.

5.10 Tree protection fencing will be installed to protect trees and their root systems. The tree protection fencing strategy should be determined by a qualified Arboriculturalist.

5.11 The construction phase is likely to be limited given the small scale of the Proposed Development. The Proposed Development will implement standard and well-rehearsed pollution control measures throughout construction. Given the scope of the development, the following actions will be implemented during construction:

- Take measures to minimise and prevent erosion and run-off, including minimising adjacent land disturbance.
- Control dust through fine water sprays used to dampen down the Site.
- Screen the edge of the Construction Zone by placing a fine mesh screening close to any dust sources.
- Cover skips and trucks loaded with construction materials and continually damp down with low levels of water.
- Cover piles of building materials like cement, sand and other fine materials and powders, regularly inspect for spillages, and locate them where they will not be washed into waterways or drainage areas.
- Use non-toxic paints, solvents and other hazardous materials wherever possible.
- Segregate, tightly cover, and monitor toxic substances to prevent spills and possible site contamination.
- Cover up and protect all drains within and adjacent to the construction footprint.
- Collect, control, and avoid wastewater generated from construction activities, screen, discharge the clean water, and dispose of remaining sludge according to environmental regulations.
- No burning of materials.
- Reduce noise pollution through careful handling of materials; modern, quiet power tools, equipment and generators; and low impact technologies.

5.12 Lighting during construction and occupation has the potential to disrupt / modify the behaviour of wildlife. A Sensitive Lighting Strategy will be implemented. This strategy will include consideration of the following principles:

- Lighting within the Site will be reduced as far as practicable.
- Luminaires will be positioned and directed away from ecological receptors.
- Column heights will be reduced as far as practicably possible to reduce light spill along with the consideration of low-level bollard lighting.



- White light will be avoided, and warm colours preferably used. Preferable colours are 3000°k to 2700°k (where feasible) with peak wavelengths greater than 550nm.
- 0% upward light output and no tilting of the light head.
- Use vegetation, fencing and walls as a light buffers.
- Motion sensors for security lighting.
- As a last resort, the incorporation of shields, baffles and cowls fitted to the luminaires.

## **Designated Sites**

### **Statutory Designated Sites**

5.13 The Proposed Development is located within 3.7km of Thames Basin Heaths SPA.

5.14 As indicated by the SSSI Impact Risk Zone<sup>12</sup> that the Proposed Development lies within, the Proposed Development is within the zone of influence (ZoI) for recreational pressure impacts to one or more European Sites (i.e., Thames Basin Heaths SPA).

5.15 Within this ZoI, any net increase in residential units will have a likely significant effect on the qualifying features of the Thames Basin Heaths SPA through increased recreational pressure (when considered either alone or in combination with other plans and projects).

5.16 The Local Planning Authority has measures in place to manage these potential impacts through a strategic solution, which Natural England considers will be effective in preventing adverse impacts on the integrity of the Thames Basin Heaths SPA.

5.17 Natural England advises that these measures should be formally checked and confirmed by the Local Planning Authority (the competent authority), via an Appropriate Assessment.

5.18 Providing the Appropriate Assessment concludes that the measures can be secured, it is likely that Natural England will be satisfied that there will be no adverse effect on the integrity of the Thames Basin Heaths SPA in relation to recreational disturbance.

5.19 The Applicant is advised to enter the Proposed Development into the strategic solution agreed between the Local Planning Authority and Natural England.

5.20 Statutory sites are not discussed further within this report.

### **Non-statutory**

5.21 The non-statutory sites are spatially isolated from the Proposed Development as to avoid impacts in relation to habitat loss, habitat fragmentation, habitat degradation,

<sup>12</sup> The Impact Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) are for local planning authorities (LPAs) to determine if a proposed development is likely to affect a terrestrial SSSI and when to consult Natural England.



noise, light, dust, and pollution. Non-statutory sites are not discussed further within this report.

## **Habitats**

5.22 The Proposed Development avoids the loss of habitats of ecological importance as the mature trees and woodland are entirely retained. The loss of a small area of garden (grassland) is not considered significant.

5.23 It appears that trees have recently been removed from an area listed as priority habitat. The applicant is advised to seed new lawn areas with a species-rich mow-tolerant seed mix, plant native trees within the garden areas of the Proposed Development, and to enter the retained woodland, into a management and monitoring plan to compensate for losses. The management plan would include the following actions as a minimum:

- Removal of grass cuttings and cessation of any further grass cutting being added to the woodland floor
- Removal of wood chippings and cessation of any further wood chippings being added to the woodland floor
- The removal of the laurel and rhododendron across the woodland
- The removal of waste materials across the woodland floor
- Replanting of the woodland understorey with native shrubs
- Monitoring

5.24 In time, the greenspace and new tree planting will provide opportunities for wildlife and re-establish canopy cover.

5.25 The landscaping and habitat provision should be secured by a suitably worded planning condition for a Soft Landscape Plan (or similar). The woodland management and monitoring should be secured by a by a suitably worded planning condition for a Woodland Management and Monitoring Plan.

## **Protected and Notable Species**



o

[REDACTED]

## Bats

### Roosts

- 5.29 All trees and areas of woodland will be retained. Areas of canopy will be removed at the access point between the two woodland blocks. These areas are thin overhanging branches which are not suitable for roosting bats.
- 5.30 Any roosts present within the woodland will be retained and light spill into the woodland will be avoided by the implementation of the Sensitive Lighting Strategy set out above.
- 5.31 Impacts on bat roosts will be avoided.



### Bats: Flight-paths and Foraging Habitat

5.32 The Site was assessed to be of High Suitability in relation to bat flight-paths and foraging habitat.

5.33 The Proposed Development will not significantly alter the landscape or modify / sever habitats of high importance to bat flight-paths or foraging habitat. It is highly likely that the replacement of the existing habitats within the Site with hardstanding and a garden will result in an undetectable change in the use of the Site by the local bat assemblage.

5.34 The loss of canopy cover within the Site is acknowledged and measures to re-establish canopy cover have been set out and are recommended to be secured by planning conditions.

5.35 As set out above, a Sensitive Lighting Strategy will be implemented during construction and occupation. In addition, it is expected that any new light sources from the Proposed Development will be minor, low-level, similar to existing light sources, and will not significantly illuminate adjacent habitats.

5.36 In line with the limited predicted degree of risk and proportionality principle<sup>13</sup>, no bat activity surveys were undertaken. This was reasoned as follows:

- The Site and Proposed Development were small in scale with a limited ZOI.
- The Site contained a simple habitat structure / connectivity (adjacent to suitable habitats only).
- Impacts (modification, fragmentation, and severance) on commuting and foraging habitats were avoided by embedded mitigation.
- The Proposed Development will introduce new structural planting and increase/re-establish canopy cover over time.

5.37 With the above mitigation, there will be a negligible impact on bat flight-paths and foraging habitat, with the overall residual impact neutral.

### Nesting birds

5.38 The removal of vegetation will be limited but should ideally be undertaken outside the nesting bird season (which is generally taken to be March – August inclusive). Should it prove necessary to remove vegetation during the bird nesting season, then the area will be checked in advance for the presence of bird nests by a suitably competent person<sup>14</sup>. If there is no evidence of breeding birds the work will be completed within 48 hours of inspection. If any active nests are identified, clearance will cease, and an appropriate buffer zone must be established around the nest in discussions with an ecologist (usually 5m). The buffer must remain intact until it has been confirmed that the young have fledged, and the nest is no longer in use.

<sup>13</sup> See sections 8.2.7, 2.2.2 and 2.2.5 of the Bat Survey Guidelines, reference 12.

<sup>14</sup> Given the low risk, limited extent of removal, and ease at which nests can be seen and identified within buildings, a competent person will be able to assess for the presence of bird nests prior to demolition.



5.39 With the above mitigation and compensation, the risk of harm to nesting birds and their young will be mitigated and the overall residual impact on nesting birds will be neutral.

### **Hazel dormouse**

5.40 All habitat suitable for hazel dormouse will be retained. Areas of canopy will be removed at the access point between the two woodland blocks. These areas are thin overhanging branches which are not suitable for hazel dormouse.

### **Hedgehog**

5.41 Habitat suitable for hedgehogs to use to rest and hibernate will not be removed.

5.42 There is the low risk that hedgehog may enter the Site during construction and be killed/injured.

5.43 The above measures [REDACTED] will protect commuting and foraging hedgehogs.

5.44 Garden habitats will include features to allow the movement of hedgehogs and other wildlife between gardens by either raising close board fencing above the ground or by cutting small 13cm x 13cm holes cut in the fencing gravel boards allowing continued access.

5.45 Hedgehogs will continue to be able to access habitats within and adjacent to the Site to commute, forage, and rest.

5.46 With the above mitigation, the risk of harm to hedgehogs will be mitigated and the overall residual impact on hedgehogs will be neutral.

### **Assessment Conclusion**

5.47 A summary of the assessment outcomes is presented in **Table 5**.



Ecological Feature	Ecological Importance / Suitability*	Assessment outcome	
Thames Basin Heaths SPA	International	Proposed Development will enter the Strategic Recreation Solution	
East Court Woods LWS	Local	No Impact / Impact Avoided	
Finchamstead Ridges LWS			
Simon's wood & Heath Pond LWS			
Blackwater Valley BOA	N/A	Target for enhancement	
Thames Basin Heaths BOA			
Individual trees: Rural tree	Site	Retained and protected	
Woodland: Other woodland; Mixed	Local		
[REDACTED]	[REDACTED]	Implement Reasonable Avoidance Measures	
Bats: Roosts: Woodland	Unknown*		
Bats: Flight-paths and foraging habitat	High*		
Birds	Site		
Hazel dormouse			
Hedgehog			
Reptiles			

Table 5: Summary of assessment outcomes

5.48 Based on the results from the survey, context of the Site, and overall low ecological importance of the Site, this report is valid for a period of 18 months (i.e., the 08/01/27). It is reasoned that there would be no material change on Site within this time period. This is reasoned in line with good practice guidelines<sup>15</sup>.

## Enhancement

5.49 The National Planning Policy Framework encourages development to provide gains in biodiversity. It was not deemed possible to enhance the Site in line with any of the principles of the BOAs located in the wider landscape. The following ecological and biodiversity enhancements will be provided within the Site:

- A Schwegler 1FR bat tube (or similar woodcrete / WoodStone® alternative) will be installed into an external wall the new residential unit. The feature will be installed at height of at least 4m, facing south or west, located at the edges or gable tops of the structures, and away from sources of artificial light. The tube will be integrated into the structure to limit the likelihood of their removal in the future.
- Two bird nest boxes (Schwegler 1B, 2H or 2GR) will be incorporated into the Proposed Development within the woodland. The features will be installed at height of at least 3m, facing north or east.

<sup>15</sup> CIEEM (2019). Advice Note: *On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester



# Appendix A: Survey Methods

## Extended UK Habitat Classification Survey

A. 1 The Site was surveyed using the UK Habitat Classification Survey method. The method classified the Site into areas of similar botanical community types with a representative sample of those species present at the time of the survey being described. The vegetation present was clearly visible and allowed an accurate assessment to be made. Any subsequent visits to the Site were used as an opportunity to update the results and classifications of the UK Habitat Survey.

A. 2 The survey was 'extended' to look for evidence of protected and notable species of flora or fauna<sup>16</sup> and to assess the suitability of the Site to support these flora or fauna. In the context of this report, rare, protected, and notable species of flora or fauna were those considered to meet any of the following criteria:

- Species protected by UK or European legislation.
- UK Post 2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species.
- Nationally rare or nationally scarce species.
- Species of Conservation Concern (e.g., JNCC Red List, RSPB/BTO Red or Amber Lists).

A. 3 The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant, or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act). Plant species listed in Schedule 9 were searched for during the survey. However, many invasive species can be cryptic and therefore this survey does not provide a guarantee that an invasive species is not present and shouldn't be relied upon to rule out absence of an invasive species<sup>17</sup>.

A. 4 An Extended UK Habitat Plan was produced (**Appendix B**), incorporating Target Notes (**TNs**) used to highlight features of ecological interest.

## Hedgerow Survey

A. 5 The Hedgerow Regulations (1997) contain detailed instructions of how hedgerows should be assessed (hereafter referred to as 'The Regulations'). The Regulations apply to:

*"Any hedgerow that is growing in, or adjacent to, protected land, or land used for agriculture, forestry or the breeding or keeping of horses, ponies or donkeys, if-*

*(a) It has a continuous length of, or exceeding, 20 metres: or*

<sup>16</sup> Suitability was determined using respective good practice guidance for each species/species group.

<sup>17</sup> Invasive species can be cryptic and can rapidly spread from adjacent land. Luscinia Ecology cannot be held liable for invasive species found within the Site after the date of the UK Habitat Survey.



*(b) It has a continuous length of less than 20 metres and, at each end, meets (whether by intersection or junction) another hedgerow".*

A. 6 Importantly, the Hedgerow Regulations give specific instructions on how to measure hedgerows and these are set out at Regulation 3:

*"A hedgerow which meets (whether by intersection or junction) another hedgerow is to be treated as ending at the point of intersection or junction".*

A. 7 These measurement instructions must be followed exactly to ensure that the Regulations are applied correctly. The Regulations also make specific mention of gaps:

*"For the purposes of ascertaining the length of any hedgerow -*

*(a) any gap resulting from a contravention of these Regulations; and*

*(b) any gap not exceeding 20 metres"*

*shall be treated as part of the hedgerow".*

A. 8 Once the length of a hedgerow has been determined, the importance of a hedgerow is assessed through the application of a number of criteria, which are referenced under Regulation 4. Regulation 4 sets out that:

*"For the purposes of section 97 (hedgerows) of the Environment Act 1995 and these Regulations, a hedgerow is "important" if it, or the hedgerow of which it is a stretch, -*

*(a) Has existed for 30 years or more; and*

*(b) Satisfies at least one of the criteria listed in part II of Schedule 1".*

A. 9 The criteria listed in Part II of Schedule 1 are divided into two main sections, namely 'Archaeology and History' and 'Wildlife and Landscape'. If a hedgerow meets any one of each of the criteria listed, it qualifies as important. The majority of these criteria are split into parts, with sub-criteria to be applied in turn to each hedgerow. With this survey being an ecological survey, the hedgerows within the Site have not been assessed against the Archaeological and Historical criteria.

A. 10 Criteria by which the importance of a hedgerow is judged in 'Wildlife and Landscape' terms are set out at criteria 6-8 of Schedule 1 Part II of the Regulations. Criterion 6 refers to the presence of rare, notable or protected species within a hedgerow. Criterion 7 sets out the specific types, numbers and/or associated features that a hedgerow must contain for it to qualify as important.

A. 11 Considering criterion 7 of The Regulations and relevant to the location of the Site, for a hedgerow within the Site to qualify as important, it must include one of the following:

*(i) At least 7 woody species;*



(ii) At least 6 woody species and be associated with at least three of the features specified below;

(iii) At least 6 woody species, including one of the following:

- Black-poplar tree (*Populus nigra* spp *betulifolia*);
- Large-leaved lime (*Tilia platyphyllos*);
- Small-leaved lime (*Tilia cordata*);
- Wild Service Tree (*Sorbus torminalis*).

(iv) At least 5 woody species and be associated with at least four of the features specified below.

A. 12 The associated features of the hedgerow, as referred to above, are:

- (a) A bank or wall that supports the hedgerow along at least one half of its length;
- (b) Gaps which in aggregate do not exceed 10% of the length of the hedgerow;
- (c) Where the length of the hedgerow does not exceed 50 metres, at least one standard tree;
- (d) Where the length of the hedgerow exceeds 50 metres but does not exceed 100 metres, at least 2 standard trees;
- (e) Where the length of the hedgerow exceeds 100 metres, such number of standard trees (within any part of its length) as would when averaged over its total length amount to at least one for each 50 metres;
- (f) At least 3 woodland species (as listed on Schedule 2 of the Regulations) within one metre, in any direction, of the outermost edges of the hedgerow;
- (g) A ditch along at least one half of the length of the hedgerow;
- (h) Connections scoring 4 points or more in accordance with the following paragraph below;
- (i) A parallel hedge within 15 metres of the hedgerow.

A. 13 Regarding point h) above, a connection with another hedgerow scores 1 point and a connection with a pond or a woodland in which the majority of trees are broadleaved trees scores 2 points; and a hedgerow is connected with something not only if it meets it but also if it has a point within 10 metres of it and would meet it if the line of the hedgerow continued.

A. 14 Criterion 8 sets out that when a hedgerow is located adjacent to a public right of way, bridleway or footpath, four woody species and two associated features are required for it to qualify as important.



A. 15 The woody species referred to above are set out on Schedule 3 of the Regulations<sup>18</sup>.

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For more information, contact the Office of the Vice President for Research and Economic Development at 515-294-6450 or [research@iastate.edu](mailto:research@iastate.edu).

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## Bat Surveys

## Ground Level Tree Assessment

A. 17 The trees within the Site were subject to a Ground Level Assessment (GLTA) following good practice guidelines. This is an external and internal inspection survey, the purpose of which is to search for bats/evidence of bats and assess the likelihood of bats being present and the need for further survey and/or mitigation.

A. 18 The features suitable to support bat roosts were searched for on the trees with reference to the Bat Tree Habitat Key<sup>19</sup>. These features are as follows:

- Longitudinal splits.
- Crevices.
- Rot-hollows.

<sup>18</sup> Alder (*Alnus glutinosa*), Apple, crab (*Malus sylvestris*), Ash (*Fraxinus excelsior*), Aspen (*Populus tremula*), Beech (*Fagus sylvatica*), Birch, downy (*Betula pubescens*), Birch, silver (*Betula pendula*), Black-poplar (*Populus nigra* sub-species *betulifolia*), Blackthorn (*Prunus spinosa*), Box (*Buxus sempervirens*), Broom (*Cytisus scoparius*), Buckthorn (*Rhamnus cathartica*), Buckthorn, alder (*Frangula alnus*), Butcher's-broom (*Ruscus aculeatus*), Cherry, bird (*Prunus padus*), Cherry, wild (*Prunus avium*), Cotoneaster, wild (*Cotoneaster integerrimus*), Currant, downy (*Ribes spicatum*), Currant, mountain (*Ribes alpinum*), Dogwood (*Cornus sanguinea*), Elder (*Sambucus nigra*), Elm (*Ulmus* species), Gooseberry (*Ribes uva-crispa*), Gorse (*Ulex europaeus*), Gorse, dwarf (*Ulex minor*), Gorse, western (*Ulex gallii*), Guelder rose (*Viburnum opulus*), Hawthorn (*Crataegus monogyna*), Hawthorn, midland (*Crataegus laevigata*), Hazel (*Corylus avellana*), Holly (*Ilex aquifolium*), Hornbeam (*Carpinus betulus*), Juniper, common (*Juniperus communis*), Lime, large-leaved (*Tilia platyphyllos*), Lime, small-leaved (*Tilia cordata*), Maple, field (*Acer campestre*), Mezereon (*Daphne mezereum*), Oak, pedunculate (*Quercus robur*), Oak, sessile (*Quercus petraea*), Osier (*Salix viminalis*), Pear, Plymouth (*Pyrus cordata*), Pear, wild (*Pyrus pyraster*), Poplar, grey (*Populus x canescens*), Poplar, white (*Populus alba*), Privet, wild (*Ligustrum vulgare*), Rose (*Rosa* species), Rowan (*Sorbus aucuparia*) Sea-buckthorn (*Hippophae rhamnoides*) Service-tree, wild (*Sorbus torminalis*) Spindle (*Euonymus europaeus*) Spurge-laurel (*Daphne laureola*) Walnut (*Juglans regia*) Wayfaring-tree (*Viburnum lantana*) Whitebeam (*Sorbus* species) Willow (*Salix* species), and Yew (*Taxus baccata*).

<sup>19</sup> Andrews H. (2018). *Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-care and Ecology professionals: Bat Tree Habitat Key*. Pelagic Publishing, Exeter.



- Transverse cracks.
- Loose bark.
- Ivy.

A. 19 The following equipment was used for the Ground Level Assessment:

- Binoculars (Pentax Papilio II 6.5 x 21 Close focusing).
- Powerful torch to illuminate dark features from the ground.
- A ladder.
- Camera to record evidence.

A. 20 The assessment of the suitability of the trees within the Site was assessed against Table 4.1 of the Bat Survey Guidelines. The table is set out in **Table 9** below.

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

**Table 6: Guidelines for categorising the potential suitability of PRFs on a proposed development site for bats, to be applied using professional judgement.**

### Flight-path and Foraging Habitat Assessment

A. 21 The assessment of the suitability of the bat flight-paths and foraging habitat of the Site was determined using Table 4.1 of the Bat Survey Guidelines. A redacted version of the table is set out in **Table 10** below.



Potential suitability	Description of flight-path and foraging habitats
None	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-paths or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	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 by 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	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	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge.  High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses, and grazed parkland.  Site is close to and connected to known roosts.

**Table 7: Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement – redacted.**

## Assessing Ecological Importance

- 5.50 The assessment of the importance of sites, habitats and species are made in line with good practice guidelines<sup>3</sup>. These guidelines provide consistency in the approach to evaluating the importance of the ecological features within a site and the effects or impacts the Proposed Development will have on them.
- 5.51 Firstly, the Site's habitats and species are assessed using a framework which assigns a level of geographical importance to ecological features. This framework incorporates a wide range of legislation and governmental guidance in assessing each feature's importance.
- 5.52 Next, the effects/likely effects of the Proposed Development are predicted, considering different stages and activities within the development process. These effects/likely effects are then assessed for their significance, based upon the importance of the Site, habitat or species being assessed. The assessment of the significance of an



effect/likely effect is considered before and after the proposed mitigation to give an overall indication of significance.

5.53 The importance of specific ecological receptors (sites, habitats, or species) is assigned according to their level of importance using the following terms:

- International
- National
- Regional
- County
- Local
- Site

## Assessing Ecological Significance

5.54 The following factors are considered when assessing the significance of ecological impacts and effects: extent, magnitude, duration, reversibility, timing and frequency and cumulative effects.

5.55 An effect is considered significant if it either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g., national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local. Non-significant effects (referred to as 'negligible') are those changes which do not cause an effect (adverse or positive) on the conservation objectives for 'important ecological features' or for biodiversity in general.

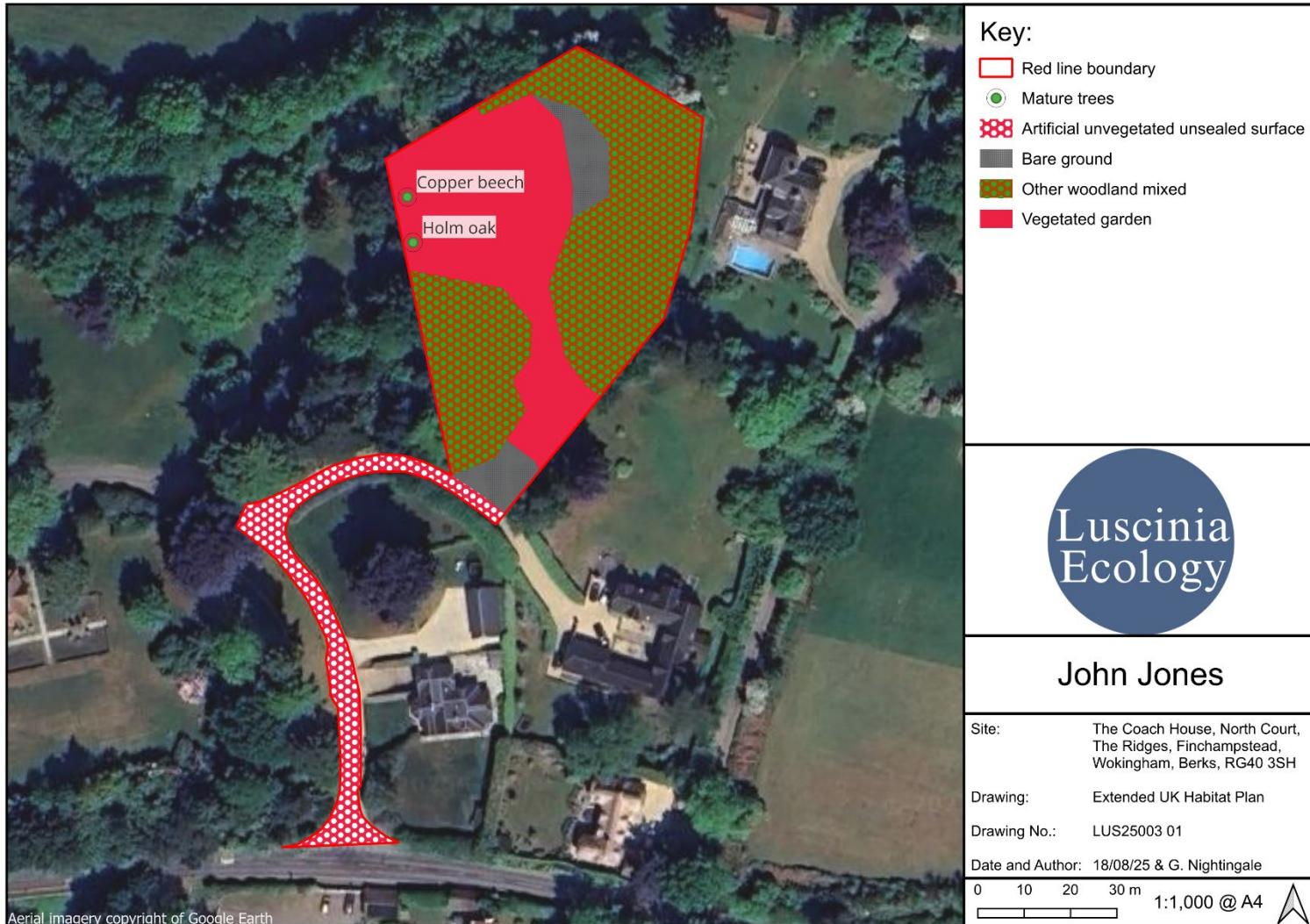
5.56 Significant ecological effects are qualified with reference to an appropriate geographic scale. However, the scale of significance of an effect may not be the same as the geographic context in which the feature is considered important.

5.57 In determining if an effect is ecologically significant, the following is considered:

- For designated sites, the effect of the Proposed Development on the conservation objectives of the designated site and the conservation status of species or habitats for which the Site is designated is assessed.
- For ecosystems, the effect of the Proposed Development on ecosystem structure and function is assessed.
- For habitats and species, the effect of the Proposed Development on the conservation status is assessed as well as the effects of impacts on individual habitats and species.



## Appendix B: UK Habitat Classification Plan



# Appendix C: Legislation and Planning Policy

C. 1 The following local policy, national planning policy and legislation relating to nature conservation and biodiversity status, are considered of relevance to the current proposal.

## Planning and Biodiversity

C. 2 Local Authorities have a requirement to consider biodiversity conservation issues when determining planning applications.

C. 3 The following natural environment polices from Wokingham Borough Council are of relevance to the Site:

- CP3 – General Principles for development.
- CP7 – Biodiversity.

C. 4 The following natural environment polices from Wokingham Borough Development Plan are of relevance to the Site:

- Policy TB23: Biodiversity and Development

C. 5 Chapter 15, Conserving and Enhancing the Natural Environment of the National Planning Policy Framework (NPPF)<sup>20</sup> includes the following:

*“187 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 and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;*

<sup>20</sup> MHCLG (2025). National Planning Policy Framework. February 2025. Ministry of Housing, Communities and Local Government, London.



e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

188. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework<sup>65</sup>; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

...

#### *Habitats and biodiversity*

192. To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity<sup>68</sup>; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation<sup>69</sup>; and

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

193. 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<sup>70</sup> and a suitable compensation strategy exists; and*

*d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.*

*194. The following should be given the same protection as habitats sites:*

- a) potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites<sup>71</sup>; and*
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*

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

## **Legislation and biodiversity**

C. 6 Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

C. 7 Other relevant legislation and policy documents that have been consulted include:

- Protection of Badgers Act (1992)
- The Countryside and Rights of Way Act 2000
- The Hedgerow Regulations 1997
- Biodiversity Action Plans, both UK-wide (UKBAP), Local plans (LBAPs) and similar nature partnership plans.

### **Wildlife & Countryside Act 1981 (as amended)**

C. 8 The Wildlife & Countryside Act 1981 (as amended; WCA) is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act outlines the protection of wildlife.



C. 9 Most offences are now covered under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

C. 10 The provisions relating to animals in the WCA only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

C. 11 There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonably avoided, or actions within the living areas of a dwelling house.

C. 12 Certain prohibited actions under the WCA may be undertaken under licence by the proper authority. For example, scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence.

### **Natural Environment and Rural Communities (NERC) Act**

C. 13 The UK Post-2010 Biodiversity Framework, which supersedes UK Biodiversity Action Plan (UK BAP) priority habitats and species, provides the 'broad enabling structure for action across the UK', which in England is interpreted into Biodiversity 2020: A strategy for England's wildlife and ecosystem services; however, some authorities do still refer to BAPs. Protecting habitats and species listed on Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006 is an outcome of this strategy. The lists of priority habitats and species in England required under S41 were published by Natural England in May 2014. These measures are given due acknowledgement where relevant.

### **The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended)**

C. 14 The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended; The Regulations), which are the principal means by which the EC Habitats Directive is transposed in England and Wales update the legislation and consolidate all the many amendments which have been made since they were first made in 1994.

C. 15 The Regulations provide for the:

- Protection of European Protected Species (EPS; animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain), including: bats, hazel dormice, great crested newts, otters, sand lizard, and smooth snake.
- Designation and protection of domestic and European Sites (e.g., Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), Special Protected Areas (SPA)).
- Adaptation of planning controls for the protection of such sites and species.



C. 16 Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function (e.g., when determining a planning application).

C. 17 There is no defence that an act was the incidental and unavoidable result of a lawful activity.

C. 18 It is possible for actions which would otherwise be an offence under The Regulations to be undertaken under licence issued by the proper authority. For example, where an EPS has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

## **Species Protection**

C. 19 The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

### **Amphibians**

C. 20 Common frog, common toad, common newt, and palmate newt receive protection under the Wildlife and Countryside Act 1981 (as amended), making it illegal to sell or trade them.

C. 21 The great crested newt and Natterjack toad are EPS and fully protected under The Regulations, making it an offence to:

- Deliberately capture, injure, kill, or disturb either species.
- Intentionally or recklessly obstruct access to any structure/place used for shelter or protection.
- Damage or destroy a breeding site or resting place.

### **Badger**

C. 22 Badgers are protected in the UK under the Protection of Badgers Act 1992. Under the act it is an offence to:

- Wilfully kill, injure, take, possess, or cruelly ill-treat a Badger, or attempt to do so
- To intentionally or recklessly interfere with a sett (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

C. 23 The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain; it is not intended to prevent properly authorised development.

### **Bats**

C. 24 All British bats are classed as EPS and therefore receive protection under The Regulations, making it an offence to:



- Deliberately kill, injure, or capture a bat.
- Deliberately disturb bats.
- Damage or destroy a breeding site or resting place of a bat.

C. 25 In addition, all British bats are also listed under Schedule 5 of the WCA, which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection.
- Disturb any bat while occupying a structure or place which it uses for that purpose.

C. 26 If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard bats.

## Birds

C. 27 In the UK, the provisions of the Birds Directive are implemented through the WCA and The Regulations. All wild birds, their nests and eggs are protected, and it is an offence to:

- Kill, injure, or take any wild bird.
- Take, damage, or destroy the nest of any such bird whilst it is in use or being built.
- Take or destroying an egg of any such wild bird.

C. 28 The law covers all species of wild birds including common, pest or opportunistic species. Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

## Brown hare

C. 29 Brown hare is listed on Schedule 5A of the WCA and it is an offence to intentionally or recklessly kill, injure or take Brown hare during their 'close season' (which is 1st February - 30th September), and sale and possession is an offence for any of these animals taken unlawfully.

## Hazel dormouse

C. 30 The hazel dormouse is classed as a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- Deliberately capture, injure, or kill hazel dormice
- Deliberately disturb hazel dormice
- Damage or destroy a breeding site or resting place of a dormouse



C. 31 In addition, hazel dormouse is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which a hazel dormouse uses for shelter or protection; or
- Disturb a hazel dormouse while occupying a structure or place which it uses for that shelter or protection.

## Hedgehog

C. 32 Hedgehog are protected under sections of the schedule 6 of the Wildlife and Countryside Act 1981 (as amended) making it an offence to:

- It illegal to kill or capture hedgehogs unless they are suffering or need to be rehabilitated then released back into the wild.

## Reptiles

C. 33 Adders, slow worms, grass snakes and common lizards are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile.

C. 34 Smooth snakes and sand lizards are European Protected Species under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). This makes it illegal to carry out the following activities:

- Deliberately or recklessly disturb, capture or kill these animals.
- Deliberately or recklessly take or destroy eggs of these animals.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.

