



EXTENDED PHASE 1 ECOLOGICAL ASSESSMENT

UPPER CULHAM FARM, UPPER CULHAM ROAD, REMENHAM HILL, HENLEY-
ON-THAMES, RG10 8NR

FINAL REPORT

May 2025

Report conditions

<i>Report title</i>	Extended Phase 1 Ecological Assessment – Upper Culham Farm, Upper Culham Road, Remenham Hill, Henley-On-Thames, RG10 8NR		
<i>Client</i>	DS Equine on behalf of their client		
<i>Report status</i>	Final		
<i>Survey date</i>	6 th August 2024		
<i>Written by</i>	Izabel Phillips	<i>Date</i>	16 th October 2024

Disclaimers

This report has been prepared by Phillips Ecology for the sole use of the client named above. Survey work, assessment, and report writing have been undertaken with all reasonable skill and care, and unless otherwise explicitly stated, is appropriate only for the work, scheme, or project brief provided by the client and intended purposes. The report may not be relied upon by any other party without the express agreement of the client and Phillips Ecology. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where data, drawings, plans or other technical information has been provided to Phillips Ecology for the purposes of preparation of this report, either by the client, their agents or other parties (including but not limited to biological data sets, laboratory results, and mapping), it has been assumed that the information is correct. No responsibility can be accepted by Phillips Ecology for inaccuracies in such data supplied by other parties.

No part of this report may be copied or duplicated without the express permission of Phillips Ecology and the client. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work, under standard limitations of access to third party land and other limitations as described in the report.

It is the client's responsibility to note and comply as necessary with any recommendations made in this report, planning conditions derived from these, and any relevant licensing regimes. Phillips Ecology bears no responsibility for any failure to note and comply with legal requirements for works carried out by or in behalf of the client at the above site and for the project this report has been produced to support.

Executive Summary

- This report has been prepared in order to present the extended phase 1 ecological assessment undertaken at Upper Culham Farm, Henley-on-Thames.
- An extended phase 1 ecological assessment of the application site was undertaken on the 6th August 2024 by Connor Hill of Phillips Ecology.
- The survey area comprised the entire site within the red line boundary and immediate surrounds. A data search extended to a 2km radius for statutory designated sites and 1km radius for priority habitats and protected species.
- The site comprises agricultural fields paddocks and farm buildings, which are enclosed within hedgerows and tree lines.
- Three priority habitats are identified as being present within the 1km radius data search area, none of these are located on the site, however the closest is located approximately 15 to the north.
- The site is considered to support opportunities for protected and priority species, however, given that the proposals are largely confined to the existing arable fields and horse grazed pasture, with the implementation of precautionary construction avoidance measures, impacts on protected species will be avoided.
- The proposals present an opportunity to deliver ecological enhancements at a site level, and benefit wildlife in the wider area. Biodiversity Metric Calculations have been carried out in order to provide measurable outcomes which demonstrate that the project will deliver quantifiable benefits to biodiversity compared to the baseline situation.
- Information regarding the length of time the findings of this report are valid for can be found in Section 14.

Contents

REPORT CONDITIONS.....	I
EXECUTIVE SUMMARY	II
1. INTRODUCTION.....	1
1.1 REPORT PURPOSE.....	1
1.2 DESCRIPTION OF PROPOSAL	1
1.3 REPORT CONTEXT	1
1.4 SCOPE OF ASSESSMENT	1
1.5 SURVEY AREA	1
1.6 SURVEY CONDITIONS.....	1
1.7 LIMITATIONS.....	1
2. DATA SEARCH	2
2.1 METHODOLOGY	2
2.2 LIMITATIONS.....	2
2.3 RESULTS.....	2
2.3.1 <i>Statutory designated sites</i>	2
2.3.2 <i>Ancient Woodland</i>	3
2.3.3 <i>Priority habitats</i>	3
2.3.4 <i>Protected species</i>	3
3. HABITATS	4
3.1 METHODOLOGY	4
3.2 LIMITATIONS.....	4
3.3 EXISTING RECORDS	4
3.4 RESULTS.....	4
3.4.1 <i>General overview</i>	4
3.4.2 <i>Cereal crop</i>	4
3.4.3 <i>Modified grassland</i>	5
3.4.4 <i>Mixed scrub</i>	5
3.4.5 <i>Other mixed woodland</i>	6
3.4.6 <i>Other broadleaved woodland</i>	6
3.4.7 <i>Hedgerows (h2a)</i>	6
3.4.8 <i>Developed land</i>	7
3.5 ASSESSMENT	7
4. PROTECTED AND NOTABLE SPECIES ASSESSMENT.....	8
5. BATS.....	9
5.1 METHODOLOGY	9
5.1.1 <i>Survey Description</i>	9
5.1.2 <i>Survey Equipment</i>	9
5.2 ASSESSMENT METHODOLOGY	9
5.3 LIMITATIONS.....	10
5.4 EXISTING RECORDS	10
5.5 RESULTS.....	10
5.5.1 <i>Tree assessment relevant to bats and their roosts</i>	10
5.5.2 <i>Site grounds relevant to bats and their roosts</i>	11
5.6 ASSESSMENT	11
6. BADGERS	11
6.1 METHODOLOGY	11
6.2 LIMITATIONS.....	11
6.3 EXISTING RECORDS	12
6.4 RESULTS.....	12
6.5 ASSESSMENT	12
7. HAZEL DORMOUSE	12
7.1 METHODOLOGY	12
7.2 LIMITATIONS.....	12
7.3 EXISTING RECORDS	12
7.4 RESULTS.....	12
7.5 ASSESSMENT	13
8. HEDGEHOGS	13
8.1 METHODOLOGY	13
8.2 LIMITATIONS.....	13

8.3	EXISTING RECORDS	13
8.4	RESULTS.....	13
8.5	ASSESSMENT	14
9.	REPTILES.....	14
9.1.	METHODOLOGY	14
9.2.	LIMITATIONS.....	14
9.3.	RESULTS.....	14
9.4.	ASSESSMENT	14
10.	GREAT-CRESTED NEWT.....	14
10.1	METHODOLOGY	14
10.2	LIMITATIONS.....	15
10.3	EXISTING RECORDS	15
10.4	RESULTS.....	15
10.5	ASSESSMENT	15
11.	BREEDING BIRDS	15
11.1.	METHODOLOGY	15
11.2.	LIMITATIONS.....	16
11.3.	EXISTING RECORDS	16
11.4.	RESULTS.....	16
11.5.	ASSESSMENT	16
12.	DISCUSSION AND ASSESSMENT OF IMPACTS	17
12.1	RELEVANT LEGISLATION AND POLICY	17
12.2	DESIGNATED SITES	17
12.3	HABITATS.....	18
12.4	BATS	18
12.5	BADGERS.....	18
12.6	HAZEL DORMOUSE.....	18
12.7	HEDGEHOG	19
12.8	REPTILES.....	19
12.9	GREAT-CRESTED NEWT	19
12.10	BREEDING BIRDS.....	19
13.	REQUIREMENT FOR FURTHER SURVEYS.....	19
13.1	INTRODUCTION	19
13.2	DESIGNATED SITES	20
13.3	HABITATS.....	20
13.4	BATS	20
13.5	BADGER.....	20
13.6	HAZEL DORMICE	20
13.7	HEDGEHOG	20
13.8	REPTILES.....	20
13.9	GREAT-CRESTED NEWT	20
13.10	BREEDING BIRDS.....	20
14.	MITIGATION RECOMMENDATIONS.....	21
13.1	INTRODUCTION	21
13.2	BATS	21
13.2.1	<i>Foraging and commuting bats</i>	21
13.3	BADGER AND HEDGEHOG	21
13.4	REPTILES.....	21
13.5	HAZEL DORMOUSE.....	22
13.6	BREEDING BIRDS	22
16.	ENHANCEMENTS.....	24
17.	CONCLUSION	26
18.	REFERENCES.....	27
	APPENDIX 1 – PROPOSED LAYOUT.....	28
	APPENDIX 2 – EXISTING HABITAT MAP	29

1. Introduction

1.1 Report purpose

This report has been prepared in order to present the extended phase 1 ecological assessment undertaken at Upper Culham Farm, Culham Road, Remenham Hill, Henley-On-Thames, RG10 8NR, located at SU 79101 82131.

1.2 Description of proposal

The proposals for the site involve the change of use from arable land to equestrian use, including the development of a comprehensive polo facility. The scheme includes the construction of a polo field, land levelling for associated stick and ball and schooling fields, and the erection of three American barns, two horse walkers, and an exercise track.

Additional features include the creation of an irrigation pond, a pump house, sand turnout corrals, and a horse rehabilitation pool. The proposals also involve the conversion of an existing barn into staff day facilities, construction of a pavilion, new estate tracks, and the formation of a new main access point with entrance gates. The scheme also includes the creation of an open storage yard and other associated infrastructure works to support the operation of the equestrian facility.

1.3 Report context

Phillips Ecology have been instructed by DS Equine to carry out ecological survey work at the site.

1.4 Scope of assessment

The survey comprised a field survey and desktop study in order to identify notable or protected sites, habitats or species potentially affected by the proposal under consideration.

1.5 Survey area

The survey area comprised the entire site within the red line boundary (Appendix 1) and also adjacent habitats and structures within the potential zone of influence. A data search extended to a 2km radius for statutory designated sites and 1km radius for priority habitats and protected species.

1.6 Survey conditions

The survey was carried out in dry conditions, 95% cloud cover, a light north-westerly breeze and a temperature of 21°C.

1.7 Limitations

Limitations which are specific to each phase of the assessment are provided in the relevant sections, below.

2. Data search

2.1 Methodology

A desk-based assessment was undertaken by Phillips Ecology on the 14th October 2024 with the Multi-Agency Geographic Information for the Countryside (MAGIC). The MAGIC database was consulted for records of statutory designated sites within a 2km radius and priority habitats and protected species within a 1km radius.

2.2 Limitations

The data search results are bound by the following statement contained within MAGICs general disclaimer: “The materials contained on this website are of a general, informational, nature. We have used reasonable endeavours to ensure the accuracy and completeness of the contents of the pages on this site but the information does not constitute advice and must not be relied on as such”.

2.3 Results

2.3.1 Statutory designated sites

One statutory designated site was identified within 2 km of the site. This is Rodbed Wood Site of Special Scientific Interest (SSSI), located approximately 1.17 km north-east of the application site.

Rodbed Wood SSSI is designated for its Thames-side willow and alder woodland, which is fed by a ditch draining adjacent water meadows. The site supports a diverse herbaceous flora, particularly in wetter and more open areas, and includes a significant population of the nationally rare summer snowflake *Leucojum aestivum*, known locally as the Loddon lily.

The woodland is structurally diverse, with white and crack willow, willow, ash, and alder dominating the wetter areas, and a well-developed shrub layer containing blackthorn, hawthorn, guelder rose *Viburnum opulus* and blackcurrant *Ribes nigrum*.

Other notable species within the herbaceous flora include marsh marigold *Caltha palustris*, yellow flag *Iris pseudacorus*, water figwort *Scrophularia auriculata*, marsh woundwort *Stachys palustris*, purple loosestrife *Lythrum salicaria*, comfrey *Symphytum officinale*, sneezewort *Achillea ptarmica*, wild angelica *Angelica sylvestris* and clustered dock *Rumex conglomeratus*. Aquatic habitats also support species such as reed grass *Glyceria maxima*, great pond sedge *Carex riparia*, starwort *Callitriche stagnalis* and duckweed *Lemna minor*.

The site supports a rich invertebrate assemblage, including dragonflies such as *Aeshna grandis* and *Sympetrum striolatum*, which warrants further study. It also attracts passage and breeding warblers and supports a diverse bird community including kingfisher *Alcedo atthis*, three species of woodpecker and up to seven species of warbler. Redpoll *Carduelis flammea* has also been recorded, and the site has long served as a BTO Common Bird Census location.

2.3.2 Ancient Woodland

Five blocks of ancient woodland were revealed by the data search. Details are provided in Table 1.

Table 1: Ancient woodlands within 1km of the application site

Woodland Name	Approx. distance and direction from the site	Reason for designation
Rosehill Wood (Tithe: Rose Hill Wood)	18m north of the northern site boundary beyond Henley Road.	This 15.23ha site is designated for its ancient and semi-natural woodland.
Rosehill Wood (Tithe: Rose Hill Wood)	18m north of the northern site boundary beyond Henley Road.	This 1.48ha site is designated for its ancient and semi-natural woodland.
Rose Hill Wood	18m north of the northern site boundary beyond Henley Road.	This 0.25ha site is designated for its ancient and semi-natural woodland.
Rose Hill Wood	18m north of the northern site boundary beyond Henley Road.	This 1.60ha site is designated for its ancient replanted woodland.
Unnamed	570m east	This 1.52ha site is designated for its ancient and semi-natural woodland.

2.3.3 Priority habitats

The data search revealed records of eight priority habitats within a 1km radius of the site, these are detailed below.

- Deciduous woodland
- Traditional orchard
- Woodpasture and Parkland

2.3.4 Protected species

The data search revealed no records of protected species EPSM licences that have been issued by Natural England within a 1km radius.

3. Habitats

3.1 Methodology

A field survey was carried out on the 6th August 2024 by Connor Hill of Phillips Ecology. During the survey, all broad habitat types were identified and a list of characteristic plant species within each habitat type was compiled. These habitats are described below in accordance with UK habs terminology.

3.2 Limitations

No limitations to the survey were identified.

3.3 Existing records

The data search did not reveal any information for the site itself, however, three priority habitats were identified as being within the 1km search radius. The closest of these, deciduous woodland, is located 18m to the north of the site, beyond Henley Road.

3.4 Results

3.4.1 General overview

The site consists of agricultural fields covering approximately 54 hectares, forming a broad triangle. Access is located at western side of the site. Here, the site comprises a number of agricultural buildings and the main dwelling.

On a broader scale, the site lies to the southeast of Henley-on-Thames, within a predominantly rural and agricultural landscape. The A4130 defines the northern boundary, beyond which lie further arable fields and scattered residential properties along Remenham Hill. To the west, the site adjoins residential and estate land accessed via Culham Lane, and to the south and east it is bordered by additional farmland, with some isolated rural dwellings and paddocks. The wider landscape is characterised by large open fields, mature woodland blocks, and estate parkland typical of the surrounding countryside.

3.4.2 Cereal crop

At the time of the survey the majority of the site comprised arable fields with cereal crops (Figures 1 and 2). The fields were dominated by a uniform crop structure with limited variation in vegetation height or species composition, typical of modern arable farming systems. Field margins were narrow and species-poor, supporting strips of modified grass.

No significant features such as uncultivated headlands, beetle banks, or conservation margins were observed, and there was little evidence of field-edge features that might support higher biodiversity.



Figure 1: view across the site, looking west.



Figure 2: view across the site, looking south.

3.4.3 *Modified grassland*

Areas of modified grassland were present along the margins of the site adjacent to the arable fields (where the grassland was lush and green indicating high nutrient levels and dominance of competitive species) (Figure 3), within the farm building complex and to the north of the farm buildings. Within the farmyard complex itself, the grassland was tightly mown, while adjacent paddocks supported horse-grazed swards, both of which are subject to regular management that suppresses structural and botanical diversity (Figure 4). The paddocks were established from arable farmland in 2005 and were likely sown with an arable grassland mix for grazing use. The grassland across these areas was species-poor and dominated by perennial rye-grass *Lolium perenne*. Other occasionally occurring species included common ragwort *Jacobaea vulgaris*, dandelion *Taraxacum officinale* agg., daisy *Bellis perennis*, white clover *Trifolium repens*, broad-leaved dock *Rumex obtusifolius*, greater plantain *Plantago major*, cock's-foot *Dactylis glomerata*, and occasional mallow *Malva* spp. These grassland areas are of low ecological value, typical of improved or modified grassland managed for amenity or equestrian use.



Figure 3: modified grassland within the site margins.



Figure 4: grassland within the paddocks to the north of the farm buildings.

3.4.4 *Mixed scrub*

A former gravel pit located in the northern part of the site has undergone natural colonisation, now supporting a mix of scrub species including hawthorn, elder, field maple, blackthorn, and bramble (Figure 5).



Figure 5: former gravel pit colonised with scrub within the north of the site.

3.4.5 Other mixed woodland

A narrow belt of mixed woodland is located in the western part of the site, between the main residence and Culham Lane. The woodland is characterised by a variety of mature trees, including yew *Taxus baccata*, oak *Quercus robur*, sycamore *Acer pseudoplatanus*, common lime *Tilia × europaea*, horse chestnut *Aesculus hippocastanum*, ash *Fraxinus excelsior*, and blackthorn *Prunus spinosa*. The understorey is sparse beneath the yew trees due to dense shading, while beneath the mature broadleaved trees it comprises predominantly blackthorn. The field layer is limited, but where present is dominated by common ivy *Hedera helix*, particularly outside the areas of bare ground beneath the yew canopy.

3.4.6 Other broadleaved woodland

A small block of broadleaved woodland was planted within the farmyard area in approximately 2010. Now approximately 15 years old, the woodland trees are even-aged and have established a dense canopy.

3.4.7 Hedgerows (h2a).

Hedgerows enclose the entire site and serve to compartmentalise the paddocks located to the north of the farmyard. Around the paddocks, the hedgerows are closely managed and maintained in a formal, box-shaped profile, consistent with regular cutting (Figure 6). In contrast, the boundary hedgerows around the wider site have developed a taller, more natural structure, with minimal recent cutting (Figure 7). These hedgerows retain a dense vertical and horizontal form, providing good structural diversity. Species diversity is relatively high, with hazel, hawthorn, blackthorn, field maple, and dogwood all recorded. The hedgerow field layer supported a range of common and widespread species including common nettle *Urtica dioica*, broad-leaved dock *Rumex obtusifolius*, curled dock *Rumex crispus*, ivy *Hedera helix*, wood avens *Geum urbanum*, bramble *Rubus fruticosus* agg., ground elder *Aegopodium podagraria*, common ragwort *Jacobaea vulgaris*, herb-Robert *Geranium robertianum*, and field scabious *Knautia arvensis*.

A single hedgerow with trees and a several tree lines have been planted within the site. The tree line located to the east of the paddocks included ash, field maple, whitebeam *Sorbus aria*, cherry *Prunus* sp., beech *Fagus sylvatica*, and willow *Salix* sp and appears to have been planted in 2000, whilst the non-native balsam poplar *Populus balsamifera* tree line to the south of the paddocks was planted much earlier than this. The hedgerow

with trees composed of lime, Scots pine, ash and field maple which skirts the southern boundary of the farmyard was planted between 2012 and 2013.



Figure 6: hedgerows amongst the paddocks.



Figure 7: hedgerows which form the boundaries of the site.

3.4.8 *Developed land*

Additional features within the site include hardstanding surfaces associated with the farm buildings, including vehicle access tracks, yard areas, and building footprints. These areas support little to no vegetation and are considered to be of negligible ecological value.

3.5 **Assessment**

The vegetation on the site is typical of an actively managed arable farm, dominated by cereal crops and enclosed within hedgerow boundaries. The arable fields support a uniform crop structure with narrow, species-poor margins, and lack features such as conservation headlands or beetle banks, resulting in limited habitat diversity or ecological interest. The hedgerows are species-rich and intact with the boundary hedgerows assessed as being of the highest botanical value due to their structure and species composition.

Areas of modified grassland around the margins of the arable fields and within the farmyard and paddocks are species-poor and heavily managed, either by mowing or grazing. These grasslands are dominated by competitive species such as perennial ryegrass and are typical of improved swards of low ecological value.

A former gravel pit in the north of the site has naturally regenerated to support mixed scrub, and two areas of broadleaved woodland are present, one a narrow belt of mixed mature trees and another a 15-year-old plantation block. While these features offer some structural diversity and localised value, they are limited in extent.

No notable plant species or assemblages were recorded during the survey. Overall, the habitats within the application site boundary are considered to be of low botanical value, with the exception of the woodland and hedgerows which provide the greatest ecological interest due to their species composition, structural diversity, and connectivity value within the landscape.

4. Protected and notable species assessment

The scope of works, data search and habitat assessment have informed the scope of the protected and notable species assessment. On this basis, the protected and priority species that have been considered further within this report are detailed below. The white-clawed crayfish *Austropotamobius pallipes*, otter *Lutra lutra* and water vole *Arvicola amphibius* are not considered further due to the lack of any records, ponds, larger waterbodies, streams and rivers on or adjacent to the site.

- Bats.
- Badger *Meles meles*.
- Hazel dormouse *Muscardinus avellanarius*.
- Hedgehog *Erinaceus europaeus*.
- Reptiles.
- Great crested newt *Triturus cristatus*.
- Breeding birds.

The surveyed site has been assessed for its potential to support the above-named protected species/species groups based upon the criteria in Table 2.

Table 2: Protected species grading criteria

Grading criteria	Justification
Negligible	Site is entirely unsuitable for species. Presence of species highly unlikely.
Low	Minimal suitable habitat present or, if present, highly degraded/fragmented. Minimal linkage to suitable habitat beyond site. Presence of species unlikely.
Moderate	Presence of some suitable habitat features for species. Surveyed site within/close to known range or known occurrence but factors such as isolation/fragmentation may reduce potential. Presence of species is more likely than not.
High	Presence of optimal habitat features for species. Surveyed site within known range/close to known occurrence. Excellent connectivity to optimal habitat. No justification for discounting presence of species.
Confirmed presence	Species confirmed on site through direct sighting, presence of field signs (e.g. scat, hair, prints, nest, eggs, habitation etc.) or through desk-based assessment.

5. Bats

5.1 Methodology

5.1.1 Survey Description

There are no buildings within the site that will be affected by the works and therefore the bat survey involved an assessment of the trees only. The survey did not depart from the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) which states that "A Ground Level Tree Assessment (GLTA) is a detailed inspection of the exterior of the tree from the ground to look for features that bats could use for roosting (Potential Roost Feature (PRF))".

The aim of the survey was to determine the available bat roosting resource on any trees that could be impacted (directly or indirectly).

5.1.2 Survey Equipment

Survey equipment available to the surveyor consisted of:

- Binoculars (10x magnification)

5.2 Assessment methodology

The suitability of the trees for supporting bat roosts will be assessed against the guidelines within Table 3 which have been adapted from the BCT Good Practice Guidelines.

Table 3: Suitability assessment guidelines

Suitability	Description of Roosting Habitats
Negligible	A building or tree that has no reasonable likelihood of supporting roosting bats i.e. no suitable roosting features present.
Low	A building or tree which could be used opportunistically by individual bats i.e. one or more potential roost sites which do not provide sufficient space, shelter, protection, appropriate conditions (e.g. temperature, light, humidity) and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.
Moderate	A building or tree which could be used by bats but is not likely to support a roost of high conservation status (e.g. maternity roost). This structure would support features which exhibit suitable size, shelter, protection, conditions and surrounding habitat for roosting bats.
High	A building or tree which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time.

The site's suitability for supporting commuting and foraging bats will be assessed against the guidelines within Table 4 which have been adapted from the BCT Good Practice Guidelines.

Table 4: Suitability assessment guidelines

<i>Suitability</i>	<i>Description of Foraging/Commuting Habitats</i>
<i>Negligible</i>	Negligible habitat features on site likely to be used by commuting or foraging bats.
<i>Low</i>	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitats. Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not parkland situation) or a patch of scrub.
<i>Moderate</i>	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such tree, scrub, grassland or water.
<i>High</i>	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of tree 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.

5.3 Limitations

The survey was conducted in August, when the trees were in full leaf. While this can often make it more challenging to identify potential bat roost features high in the canopy, the only trees proposed for removal are relatively young (approximately 12 years old) and as such, it was possible to examine them thoroughly from ground level..

5.4 Existing records

No bat EPSM records were returned within the 1km radius.

5.5 Results

5.5.1 Tree assessment relevant to bats and their roosts.

The only trees on site considered to be of an age or structure capable of supporting bat roost features will be retained and protected as part of the proposal. The development will involve the removal of 28 immature trees located within the tree line to the south of the farm buildings. These trees are relatively young and have not yet developed the characteristics typically associated with potential roosting habitat, such as cavities, cracks, or loose bark, and are therefore considered to offer negligible suitability for roosting bats.

5.5.2 *Site grounds relevant to bats and their roosts*

The majority of the site is characterised by a lack of significant vegetation, limiting its potential to support a diverse insect population and thus reducing its value as a foraging habitat for bats. In general, bats are more likely to forage in areas that provide a consistent source of insect prey, such as woodlands, hedgerows, or water bodies that attract flying insects.

However, it is worth noting that Phillips Ecology has previously observed bats foraging over stubble fields during late summer and early autumn, taking advantage of a temporary abundance of prey. In one such instance, bats were observed flying across the middle of a stubble field to exploit a sudden emergence of crane flies *Tipulidae* species, which likely provided a concentrated, high-energy food resource during this period.

This behaviour highlights the adaptability of bats to opportunistic foraging in habitats that may not typically be considered high-value. While the open, arable areas of the site generally offer low foraging value, seasonal events such as insect emergences could temporarily enhance its suitability as a foraging ground for bats. It is also important to consider that such foraging behaviours are often species-specific, with certain bat species (such as pipistrelle) being more likely to exploit transient food resources in open habitats.

The habitats that are likely to be of highest value for foraging bats are the boundary hedgerow and woodland since they provide a consistent linear feature for bats to forage along, whilst also providing shelter from the prevailing weather.

5.6 **Assessment**

When assessed against the criteria in Table 3, the trees on site which will be affected by the works were all assessed as providing negligible suitability for bat roosting i.e. “*A tree that has no reasonable likelihood of supporting roosting bats i.e. no suitable roosting features present*”.

When assessed against the criteria in Table 4, the site was considered to provide moderate suitability for bat foraging i.e. “*Habitat that is connected to the wider landscape that could be used by bats for foraging such tree, scrub, grassland or water.*”

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

■	■
	■
	■
■	■
	■
	■
	■
	■
	■
	■
	■
■	■
	■
	■

7. Hazel Dormouse

7.1 Methodology

An assessment was made of the suitability of habitat on site to support hazel dormice. Key habitats are woodland, scrub and hedgerows, particularly where these offer dense vegetation within which to nest/hibernate and key resources such as hazel nuts, fruiting/nectar-rich plants (e.g. hawthorn, bramble) to provide a continuum of food resources throughout the active season and honeysuckle *Lonicera periclymenum* (for nesting material). Landscape-scale habitat linkages such as hedgerows are fundamental for dormouse presence where small scale or sub-optimal habitats are recorded within a site.

7.2 Limitations

Limitations were not encountered during the course of the survey.

7.3 Existing records

The data search revealed a single record of hazel dormouse within the 1km search radius, in addition several records were revealed beyond the 1km search radius, but within the 2km search radius. All of these records were to the north-east of the site, the closest being 670m.

7.4 Results

The only suitable habitat for hazel dormouse exists around the boundaries, where the boundary hedgerows and woodland are located. The boundary hedgerows, and to some degree the internal hedgerows associated with the paddocks, are considered to be suitable for supporting breeding hazel dormice. In the case of the boundary hedgerows,

the mature and structured nature of the hedgerows is considered highly suitable. The interior hedgerows support more mature woody habitats, but the hedgerows are heavily managed. However, the vegetation is quite dense in places and therefore could support, nesting any transient individuals.

The tree line to the south of the farm buildings is composed of trees in a scattered linear arrangement with an understorey of managed grassland. As such, the tree line does not support suitable shelter for nesting or hibernation but could support transient dormice, though better connectivity through the landscape is provided by the western boundary hedgerow.

No evidence of hazel dormouse, such as hazel nuts gnawed in the distinctive manner or nests within dense vegetation, was recorded during the survey.

7.5 **Assessment**

When assessed against the criteria in Table 2 the boundary habitats are considered to support high suitability for the hazel dormouse. This assessment is based on the presence of suitable habitat around the boundaries.

8. Hedgehogs

8.1 **Methodology**

The site was assessed for its suitability to support hedgehogs based on the presence of favoured habitats such as woodland edges, hedgerows, grassland and suburban habitats.

Hedgehogs are most abundant within gardens, parks and amenity land close to or within human settlements. They are generally scarce in areas of coniferous woodland, marshes and moorland, probably because of a lack of suitable sites and materials for the construction of winter nests (Morris, 2006). Any evidence of hedgehog activity such as prints or droppings would be recorded.

8.2 **Limitations**

Low detections rates are associated with evidence of hedgehog activity; therefore, absence of evidence does not confirm the absence of hedgehogs. For this reason, the assessment of the likely presence/absence of hedgehogs has largely been informed by the species' local distribution and the habitats within the site and local area.

8.3 **Existing records**

Phillips Ecology is not aware of the status of the species in the local area, but given the semi-rural nature of the habitats, it is considered that they would likely be present on the site.

8.4 **Results**

The main part of the site consists of an agricultural field that lacks any suitable habitat for nesting hedgehogs but is considered to be of value for foraging. The boundary habitats are considered suitable for nesting, although no conclusive evidence was recorded.

8.5 **Assessment**

When assessed against the criteria in Table 2 there is considered to be high suitability for hedgehog to occur on site. This assessment is based on the presence of suitable nesting habitat around the margins, and suitable foraging habitat across the majority of the site.

9. Reptiles

9.1. **Methodology**

An assessment was made of the site's suitability to support reptile populations. Key habitat features include tussocky/patchy grassland, scrub edge, linear watercourses, ponds, compost heaps, brash piles and rubble/soil heaps. Linkage to suitable habitat within the surrounding landscape will increase the potential for reptiles to occur, although populations can occur within isolated/fragmented habitats even within urban areas.

9.2. **Limitations**

Limitations were not encountered during the course of the survey.

9.3. **Results**

Widespread reptiles often face significant challenges in intensively farmed environments due to the constantly changing habitat structure, which disrupts their ability to thrive. However, areas with more stable habitat, such as field margins, and boundary habitats—especially if these habitats are semi-permanent—can provide potential refuges for widespread reptiles.

On this site, the only habitats with any suitability for reptiles, would be those which are more structured at the base of hedgerows. It is considered that these habitats could support both common lizard and slow-worm. During the survey no evidence of common reptile species was recorded.

9.4. **Assessment**

When assessed against the criteria set out in Table 2, the site is considered to provide moderate suitability for common reptiles.

10. Great-crested Newt

10.1 **Methodology**

Great-crested newts (GCN) are only present in their breeding ponds during the spring and early summer – for the rest of the year, they will be dispersed across the surrounding area, generally in grassland, scrub, woodland and hedgerows, although they may be found in gardens and brownfield sites. They can travel some distance from their breeding ponds, and as a general rule, developments within 500m of such a pond may have the potential to have an impact on GCN, although to a certain extent, this does depend on any intervening habitat or barriers to dispersal.

An assessment was made of any waterbodies and terrestrial habitat within the site for their suitability to support populations of amphibians. Suitable waterbodies will generally be characterised by the presence of good quality water, diverse macrophyte cover and an absence of fish. For the great crested newt, each waterbody is normally assessed using the Habitat Suitability Index (HSI) system (Oldham et al., 2000) and assigned a grading score between zero (poor suitability) and 1 (excellent suitability).

10.2 Limitations

The HSI for great crested newts is a measure of habitat suitability. In general, ponds with high HSI scores are more likely to support great crested newts than those with low scores. However, in isolation, the system is not sufficiently precise to allow the conclusion that any particular pond with a high score will support newts, or that any pond with a low score will not do so (Oldham et al., 2000).

10.3 Existing records

The data search did not reveal any records of GCN within the 1km search radius, however positive records were recorded 3km to the east, and 2.2km to the west, though these are beyond the River Thames, a significant barrier to dispersal.

10.4 Results

There are no ponds or other areas of standing water present on the site and therefore the site is considered unsuitable as a breeding location for the species. The habitat on most of the site is also considered unsuitable for GCN, due to its highly disturbed nature as a result of the intensive agriculture. The only suitable terrestrial habitat for GCN within the site comprises the scrub, woodland and hedgerow understoreys. The grassland, arable and hardstanding habitats do not provide sufficient shelter for the species to reside, though if GCN are present locally they could commute across this habitat.

A review of online mapping revealed a single pond within a 500m radius of the site boundary (450m W), however, the pond is located over 500m from the closest location of the proposed works.

10.5 Assessment

When assessed against the criteria in Table 2, the footprint of the proposals is considered to provide negligible suitability for GCN.

11. Breeding birds

11.1. Methodology

An assessment was made of the site's suitability to support breeding bird species. Nesting birds will utilise a broad range of habitats, including built structures, trees, scrub, isolated shrubs, dense herbaceous vegetation (terrestrial and aquatic) and open grassland. All bird species and evidence of breeding activity (active or inactive) observed on site were recorded.

11.2. **Limitations**

No limitations were identified during the survey.

11.3. **Existing records**

Phillips Ecology is not aware of existing breeding bird information for the application site and local area.

11.4. **Results**

The habitats on the site include hedgerow and scrub, tall ruderals and agricultural land which are all considered suitable for breeding birds.

During the survey the assemblage of bird species recorded was moderately diverse, with the species recorded including robin *Erithacus rubecula*, wren *Troglodytes troglodytes*, blue tit *Cyanistes caeruleus*, great tit *Parus major*, chiffchaff *Phylloscopus collybita* and linnet *Linaria cannabina*.

It is considered that suitable habitat is present on the site for most of the species recorded.

11.5. **Assessment**

When assessed against the criteria detailed in Table 2, the site is considered to provide high suitability for breeding birds, although no active or old nests were located on the day.

The Birds of Conservation Concern 5 publication has highlighted that 70 species are now included on the red list, and 104 on the amber list, due to significant and moderate declines in their respective populations. Of the species recorded, wren is included on the amber list and linnet is located on the red list.

12. Discussion and Assessment of Impacts

12.1 Relevant legislation and policy

Circular 06/2005 identifies that Applicants should not be required to provide information on protected species unless there is a reasonable likelihood that they will be present and affected by the proposed development. The site is considered to support habitats with suitability and potential for protected species and these may be affected by the proposed development. Therefore, the proposal triggers 'reasonable likelihood' under the Circular.

The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (commonly referred to as the Habitats Regulations) may apply should protected species be confirmed on site.

In the case that a European protected species is found to be present and impacted by the proposal, the local planning authority will be required to engage with the Habitat Regulations. Permission will be granted unless:

- a) the development is likely to result in a breach of the Habitats Regulations, and
- b) is unlikely to be granted an EPS licence from Natural England to allow the development to proceed under a derogation from the law (under licence).

When considering whether Natural England would not be unlikely to grant a licence for the identified impact, the local planning authority must consider the three tests which are set out in the Habitat Regulations:

1. the consented operation must be for 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment' (Regulation 53(2)(e));
2. there must be 'no satisfactory alternative' (Regulation 53(9)(a)); and
3. the action authorised 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range' (Regulation 53(9)(b)).

Natural England will grant a licence if the development proposal is able to meet the three tests.

12.2 Designated sites

The proposed development will not result in the direct loss of any designated sites. Nor will it result in the direct loss of any habitat that could be considered functionally linked supporting habitat for the species for which the sites were designated.

The closest designated site to the application site is Rosehill Wood ancient woodland which is located to the north of the site beyond Henley Road. The closest works to the Rosehill Wood will comprise new woodland planting along the northern site boundary. As

such, no adverse impacts on the ancient woodland associated with the proposal are anticipated.

12.3 Habitats

The main body of the site consists of an arable field, which has been continuously modified over a prolonged period. There are no notable species, or assemblages of species, and therefore impacts are considered to be low.

However, the boundary habitats, and particularly the eastern hedgerow, are considered to be of ecological value and a priority habitat. The proposal will result in the loss of 5m of hedgerow for a new access to the north of the site. In addition, the tree line to the south of the farm buildings will be lost to the proposal, resulting in the felling of 28 immature trees.

Biodiversity Metric Calculations have been carried out in order to provide measurable outcomes which demonstrate that the project will deliver quantifiable benefits to biodiversity compared to the baseline situation. Despite the loss of the hedgerow and tree line outlined above, the scheme will deliver a 55.98% gain in habitat units and a 12.09% gain in hedgerow units.

12.4 Bats

On the basis that the trees which will be felled as part of the proposals support negligible suitability for roosting bats, no impacts on roosting bats are anticipated.

In terms of foraging and commuting bats, the site is considered to offer moderate suitability. Potential impacts on foraging and commuting bats could arise from the loss of linear features that they may use for foraging across the site, as well as from any increase in lighting which results for the development of the site and illuminates the margins.

The proposal will deliver extensive woodland planting hedgerow planting and the construction of a reservoir which will overall result in a net gain of foraging and commuting habitat at the site.



12.6 Hazel dormouse

The boundary hedgerows are considered to support high suitability for hazel dormouse. However, the proposed development will involve the removal of only a short section of hedgerow, approximately 5 metres in length, to facilitate access. This loss is minimal in extent and will not result in the fragmentation of the overall hedgerow network, which remains well-connected across the site and the wider landscape.

To minimise the risk of impacts to dormice during works, precautionary measures will be implemented. These include scheduling the removal during the dormouse hibernation period (November to March), conducting a pre-works inspection for nests, and carrying out the works by hand in a phased and sensitive manner. The hedgerow section will be replaced with new native planting across the site to maintain ecological connectivity and provide long-term habitat enhancement for the species.

Given the very limited scale of removal, the avoidance measures proposed, and the commitment to compensatory planting, the risk of significant impacts to hazel dormouse is considered to be low.

12.7 **Hedgehog**

Impacts on hedgehogs are likely to occur if trenches are left open during the construction phase of the development.

12.8 **Reptiles**

The grassland and arable farmland which will be impacted during the construction works lack sufficient shelter opportunities for reptiles. The small section of hedgerow to be impacted by the works does offer limited suitability for reptiles. Precautionary measures are advised.

12.9 **Great-crested newt**

The development footprint is considered to provide negligible suitability for GCN and therefore impacts are not anticipated.

12.10 **Breeding birds**

The development of the site will result in the loss of suitable breeding bird habitat in the form of the tree line to the south of the farm buildings and the hedgerow which will be lost to the new access. The removal of this habitat has the potential to damage or destroy active bird nests if carried out during the breeding bird season which is generally seen as extending from March to the end of August, although may extend longer depending on local condition.

13. Requirement for further surveys

13.1 **Introduction**

Further surveys are required where there is a reasonable likelihood that a protected species will be present and impacted by the proposed development. An assessment into the requirement for further surveys is presented below, however in summary, no further surveys are considered necessary.

It is important that planning decisions are informed by the most up-to-date ecological survey information. As a result, there is a limited time frame that phase 1 and phase 2 surveys are valid before becoming outdated. This time frame can vary depending on any changes to the proposed project plans, but it is generally considered that phase 1 ecological surveys are valid for a period of 18 months (CIEEM, 2019). Where projects run

for a longer period than 18 months, there may be the requirement to carry out further ecological surveys to ensure planning authorities have the most up-to-date survey information in order that they can make well informed, evidence-based decisions.

13.2 Designated Sites

No further surveys are considered necessary since the proposals will not adversely impact any designated sites.

13.3 Habitats

No further surveys are considered necessary for understanding the habitats on the site.

13.4 Bats

The following information is based on the assumption that trees along the southern boundary will need to be removed as part of the proposals.

The affected areas of habitat within the site are considered to be unexceptional in the context of the local area as a foraging or commuting resource. Therefore, further surveys are considered unnecessary for understanding impacts on foraging and commuting bats, subject to the precautionary mitigation measures set out in Section 14.

13.5 Badger

No further surveys are considered necessary.

13.6 Hazel dormice

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.7 Hedgehog

Subject to the precautionary mitigation measures set out in Section 15, no further surveys are considered necessary.

13.8 Reptiles

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.9 Great-crested newt

No further surveys are considered necessary for GCN.

13.10 Breeding birds

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary in respect of breeding birds.

14. Mitigation recommendations

13.1 Introduction

The overarching aim of the ecological survey and assessment work carried out at the site is to inform the planning proposals in order to demonstrate how the development can proceed whilst avoiding or mitigating impacts on ecological receptors. The 'mitigation hierarchy' is an accepted approach which guides this process. The first consideration should always be to design a scheme that avoids the identified impact. Where this is not possible the next step should be to mitigate any impacts that cannot be avoided. The third, which should be used as a last resort, is compensation: this should only be used to offset any unavoidable impacts.

13.2 Bats

13.2.1 *Foraging and commuting bats*

In order to limit any effects on foraging and commuting bats, external lighting should be limited to only that which is absolutely necessary for safety purposes, both during the construction phase and once the proposals are complete. The following lighting measures are required:

- Construction works between March and October will be undertaken during daylight hours only to avoid disturbance to bats that may forage and commute through or near the site.
- All lighting must follow the Bat Conservation Trusts and Institute of Lighting Professionals guidance on bats and artificial lighting (BCT, 2023).
- The brightness of the lighting will be as low as possible (for example bollard lighting) and kept at a low level and directed away from the boundary features. Lighting on sensors will not be so sensitive that foraging bats trigger them and, should be turned off when not required.

13.3 Badger and Hedgehog

In order to avoid harm to hedgehogs during the construction works the following precautionary measures will be employed:

- Any accumulations of brash, including those already existing, will be dismantled by hand in a sensitive and careful manner.
- No bonfires will be made or lit on site.
- All trenches will be left covered at night. They must be checked in the morning before they are filled in.

13.4 Reptiles

Given the low potential for small populations reptiles to be present within the habitats that will be impacted by the proposal it is not considered necessary to carry out further detailed

surveys. It is important that a precautionary approach to the construction phase is adopted by abiding by the following measures:

- Toolbox talk: All contractors involved in vegetation clearance and groundworks will receive a toolbox talk from a suitably qualified ecologist prior to the start of works. This will cover basic reptile ecology, identification, and what to do in the event a reptile is encountered.
- Phased vegetation clearance: Where suitable habitats (e.g. tussocky grassland) are present, vegetation will be cut in two stages:
 - First, reduced to 150 mm using a brush cutter to allow reptiles to move away.
 - After 24–48 hours, the area will be closely mown or strimmed to ground level, working in a directional manner towards retained habitat, under ecological supervision if necessary.
- All construction waste will be placed directly into skips to avoid the formation of rubble piles, which could attract reptiles for shelter.
- Loose granular materials such as sand or topsoil will be stored in sealed bags on pallets, or if delivered loose, used promptly and only dug into by hand where feasible.
- All open trenches and excavations will be covered overnight or have escape ramps (e.g. scaffold boards) installed.
- Trenches will be checked each morning by site staff before backfilling or resuming work.

13.5 **Hazel dormouse**

The following precautionary measures will be employed during the removal of the tree line and the short section of hedgerow for the new northern access:

- The clearance works should take place between November to March to avoid both impacts to breeding birds and reduce the likelihood that dormice will still be active.
- The woody vegetation and trees must be visually inspected before their removal to ensure no dormouse nests are present.
- The clearance should be completed by hand in a sensitive manner to minimise the chance of disturbing/killing dormice.
- The removal of any cut material must also be done by hand in a sensitive manner to avoid impacts to dormice hibernating on the ground.

13.6 **Breeding birds**

Care should be taken that the development does not disturb breeding birds. The bird nesting season is taken to be March to August inclusive. Any removal of suitable nest

habitat will either need to be undertaken outside of this period or else checked by an experienced ecologist to ensure that no nesting birds are present within 24 hours of its proposed removal. If occupied nests are present then the nest must not be removed, and clearance can only recommence once the nest becomes unoccupied of its own accord.

16. Enhancements

The delivery of biodiversity enhancement on development sites is promoted by the National Planning Policy Framework (NPPF) and Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006.

Where opportunities exist it is best practice to provide enhancement features which encourage greater biodiversity within development sites in accordance with the NPPF and Local Planning Authority's responsibilities under the NERC Act.

Proposals are exempt from Biodiversity Net Gain (BNG) requirements where they meet the following criteria:

- made by householders as defined within article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015.
- A development that does not impact a priority habitat and impacts less than:
 - 25 square metres (5m by 5m) of on-site habitat
 - 5 metres of on-site linear habitats such as hedgerows
- consists exclusively of dwellings that are self-build or custom house building as defined in section 1(A1) of the Self-build and Custom Housebuilding Act 2015.

In the case of this site, the proposals do not fall within the categories outlined above and therefore are not exempt from BNG requirements.

Biodiversity Metric Calculations have been carried out in order to provide measurable outcomes which demonstrate that the project will deliver quantifiable benefits to biodiversity compared to the baseline situation. Despite the loss of the hedgerow and tree line outlined above, the scheme will deliver a 55.98% gain in habitat units and a 12.09% gain in hedgerow units.

Further species-specific enhancements are recommended as follows:

Reptiles and Amphibians

The site currently supports low potential for reptiles. To enhance habitat provision, the creation of hibernacula using logs, brash, and rubble in sunny, undisturbed locations at the site margins and adjacent to the reservoir is recommended. These features will provide thermal refuges and hibernation opportunities for common reptile and amphibian species, should they be present in the surrounding landscape. Retaining taller grassland areas adjacent to the newly planted woodland areas and the reservoir would provide valuable habitat for reptiles and amphibians.

Roosting Bats

Integrated bat boxes should be incorporated into the new buildings across the site. These should include designs suitable for crevice-dwelling species such as common pipistrelle *Pipistrellus pipistrellus*. Where feasible, boxes should be installed on south- or southeast-

facing elevations, positioned at least 3–5 metres above ground and away from artificial lighting.

Breeding Birds

A variety of nest boxes should be installed to enhance breeding opportunities for declining bird species. These should include boxes for common swift *Apus apus* on taller buildings, as well as boxes designed for house sparrow *Passer domesticus* and starling *Sturnus vulgaris*, both of which are red-listed species. Boxes should be sited in clusters where appropriate, positioned under eaves or on sheltered walls.

Hazel Dormice

Given the high suitability of boundary hedgerows for hazel dormouse, enhancement measures should include the installation of 10 dormouse nest boxes within retained and newly planted hedgerows and woodland edges. These should be placed at approximately 1.5–2 metres in height, spaced at least 15–20 metres apart.

17. Conclusion

The extended Phase 1 ecological assessment has confirmed that the habitats within the site boundary are primarily composed of intensively managed arable land and areas of modified grassland, enclosed by a network of hedgerows. Several hedgerows are considered to be of high ecological value due to their structure, species diversity, and connectivity within the wider landscape.

The site supports moderate suitability for foraging and commuting bats and high suitability for hazel dormouse associated with the boundary hedgerows. [REDACTED], and the habitats present offer opportunities for nesting birds and foraging hedgehogs. The site supports low potential for widespread reptile species due to the largely intensively managed habitats. Great crested newts are considered likely absent from the site based on habitat suitability and survey data.

No further surveys are required for protected species provided that the recommended precautionary methods are followed during construction.

A range of ecological enhancement measures have been proposed, including new woodland and hedgerow planting, creation of reptile and amphibian hibernacula, and installation of bird, bat, and dormouse boxes. These enhancements are expected to result in a net gain in habitat availability and biodiversity across the site.

18. References

- **Altringham J D, 2003**, British Bats, Collins New Naturalist
- **Anon, 2001**, *Great Crested Newt Mitigation Guidelines*, English Nature, Peterborough.
- **Chartered Institute of Ecology and Environmental Management, 2017**. *Guidelines for Preliminary Ecological Appraisal*. CIEEM, Winchester
- **Clark, M. 2017**, *Badgers*. Whittet Books Ltd, Essex.
- **Collins, J. (ed.) (2023)** Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.
- **English Nature, 2002**, Barn owls on site – A guide for developers and planners
- **Gent T and Gibson S 1998** *Herpetofauna Workers Manual JNCC*
- **Hill, D., Fasham, M., Tucker, G., Shewry, M., Shaw, P. (2005)** Handbook of Biodiversity Methods – Survey, Evaluation and Monitoring. Cambridge University Press. Cambridge.
- **ILP and BCT, 2023** *Bats and Artificial Lighting at Night: Guidance Note GN08/23*. ILP, Warwickshire.
- **Joint Nature Conservation Committee. 1993**. *A Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Peterborough: Joint Nature Conservation Committee.
- **Mitchell Jones AJ and McLeish A P, The Bat Workers Manual, JNCC**
- **Morris, P. A. (2006)** The New Hedgehog Book. London, Whittet Books.
- **Natural Environment and Rural Communities Act 2006**, Ch 3, s. 40
- **Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. 2000**. *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143 - 155.
- **Pearce G. E., 2011**, *Badger Behaviour, Conservation & Rehabilitation*. Pelagic Publishing, Exeter.
- **Reason, P.F and Wray, S (2023)**. *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. Version 1.1 Chartered Institute of Ecology and Environmental Management, Ampfield.
- **Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021**. The status of bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and the Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114:723-747.

[illegible]

Appendix 2 – Existing habitat map

UPPER CULHAM FARM, HENLEY-ON-THAMES
On-site Habitats Existing - 04/05/2025



Map contains Google Satellite Imagery

Scale 1:7500

KEY

- Red Line Boundary
- Individual tree
 - Existing Large Urban Tree
 - Existing Medium Urban Tree
 - Existing Tree
- Hedgerow Baseline
 - Line of trees
 - Native hedgerow with trees
 - Species-rich native hedgerow
- Habitats
 - Artificial unvegetated, unsealed surface
 - Cereal crops
 - Developed land; sealed surface
 - Mixed scrub
 - Modified grassland
 - Other woodland; broadleaved
 - Other woodland; mixed

Map produced using Biodiversity
Metric QGIS Template



07760 208562

info@phillipsecology.co.uk

www.phillipsecology.co.uk

Hampshire office:
Clifton Cottage
Bucks Head Hill
Meonstoke
Hampshire
SO323NA