Preliminary Ecological Appraisal

Pickeridge Cottage

Cob Lane, Ardingly, Haywards Heath

Survey Date: 15th July 2025

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1. Introduction

1.1. Report Rationale

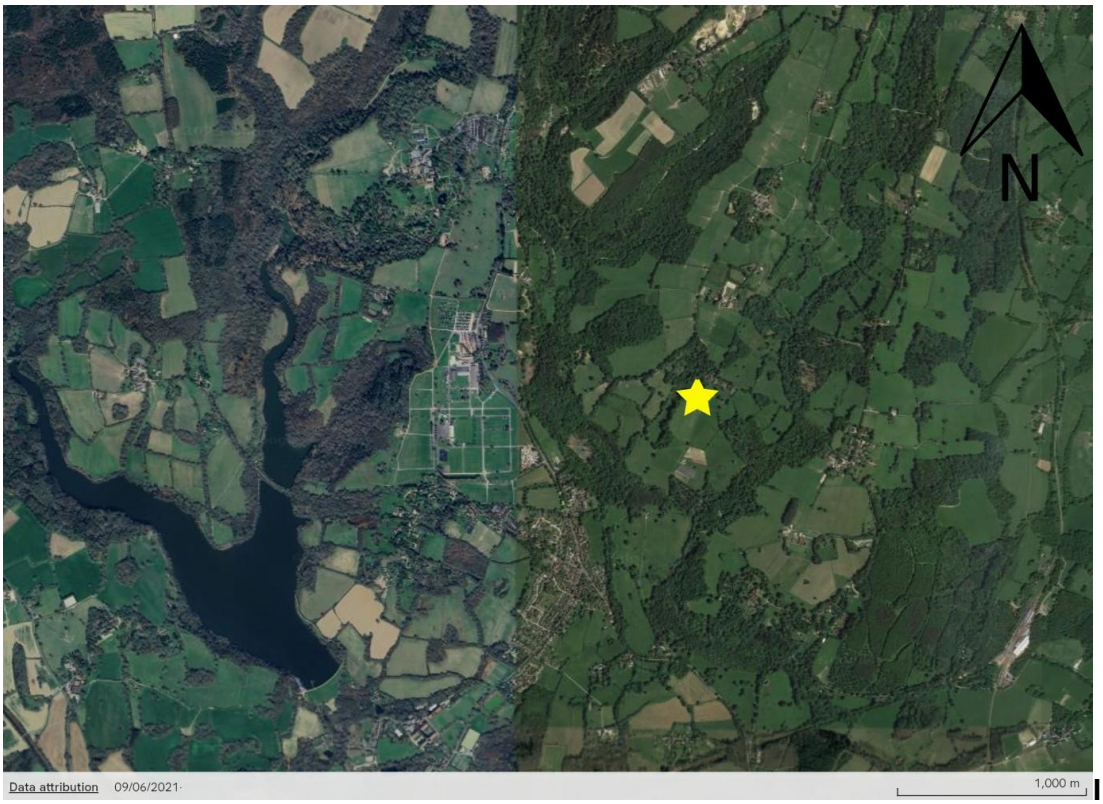
This report was processed on behalf of Rachel Milliken. Eco 360 were commissioned to undertake a Preliminary Ecological Appraisal at Pickeridge Cottage, Cob Lane, Ardingly, Haywards Heath (grid ref: **TQ 35375 30327**). The survey effort involved both a desktop study and field survey. The main purpose of this assessment was to identify the broad habitats (as stated in the JNCC Phase 1 Handbook) and the flora species present within the survey area, with any evidence of protected species usage and/or features of potential ecological interest also included. The field survey was carried out on the 15th July 2025. Both the surveys and the report were completed by Mr. Nathan O'Shea: BSc (Hons), Consultant Ecologist.

1.2. Site Description and Works

The site is a two-story house, associated garden space, field and tree/shrub South boundary. Set within a rural setting in the North-East of Ardingly, it is surrounded by open and agricultural fields, woodland and other scattered farm complexes. Approximately 250m South-East of the site starts the priority deciduous woodland of Batten's Wood, and approximately 500m North-East is the boundary of Whitestone Wood and Ludwell Ghyl priority habitat. 50m West of the site is deciduous woodland habitat South of the bend in Cob Lane.

The current plans are to demolish the existing building and re-develop the land into a large dwelling with associated garden areas, parking and driveways. The plans also incorporate a large veranda bordering the house exterior.

Img.1. Site location.



Img.2. Site within its larger environment.

2. Survey Methodology

2.1. Desktop survey

A variety of resources were used in assessing the importance of the site in the surrounding environment and local landscape from an ecological perspective. The sources used were Google Maps, Google Earth, OSMaps and National Biodiversity Network Trust (NBN). A search of other relevant nature conservation information was made through the use of the Multi-Agency Geographic Information for the Countryside (MAGIC) database.

2.2. Field survey

A Preliminary Ecological Appraisal (previously referred to as an Extended Phase 1 Habitat Survey) was carried out using the method outlined in the JNCC Handbook for *Phase 1 Habitat Survey: a technique for environmental audit (2010)*. This method aims to map and describe the broad habitat types and notable features present on the surveyed site.

As part of the field survey, the floral species will be identified and noted down. This will consider the dominant, abundant, frequent, occasional and rare (DAFOR) species within each habitat on the survey site. The impacts of the proposed development scheme will be assessed by this report.

Each habitat will be assessed for the presence and/or the potential presence of protected species. The impacts of the proposed scheme of works on all potential protected species on site will be assessed. From this, either remedial action or recommended phase 2 presence/absence surveys will be devised.

Some of the classification codes and colours listed within the JNCC handbook may have been slightly modified for this project.

Habitat Surveys can be carried out at any time of the year, with the optimal time period falling between the months of April through until September. Eco 360 feels confident that the majority of the floral species located on the site were competently identified during the survey effort. In addition to this, Eco 360 feels confident that this report reflects an accurate representation of the sites suitability for protected species to be present.

All sites surveyed by Eco 360 will be run against the relevant Local Wildlife Site Criteria to assess whether or not they meet the required standards.

3. Desktop Survey Results

3.1. Designated Sites

As the work will be kept within the site boundary, and none exist within the site boundary, there will be no impact on statutory/non-statutory designated sites from the works.

3.2. Species Records

3.2.1. Amphibians

There were four species found from the study within the search radius from the site, nearest recorded ~1km South of the site. The most notable were the Great Crested Newt (*Triturus cristatus)* and the Smooth Newt (*Lissotriton vulgaris)*.

3.2.2. Birds

The desktop study identified that there were 98 different species of bird recorded within the search area.

3.2.3. Crustaceans

There were 5 species of woodlouse records found during this study within the search radius.

3.2.4. Fish

This survey found 3 records of fish within the study radius.

3.2.5. Flora

366 different plant species have been recorded within the survey area, as identified by NBN.

3.2.6. Fungi

There were 118 species of fungi on record had been identified during the search.

3.2.7. Invertebrates

The study identified 400 different species of insects within the search radius.

3.2.8. Mammals

Of the mammal species identified, 5 species of bat were noted within the search radius. These were the Brown Long-Eared (*Plecotus auritus),* Common Pipistrelle (*Pipistrelle pipistrellus),* Soprano Pipistrelle (*Pipistrellus pygmaeus),* Daubenton's (*Myotis Daubentonii),* and the Noctule (*Nyctalus noctula).* One Water Vole (*Arvicola amphibius*) and one Hazel Dormouse (*Muscardinus avellanarius)* were recorded in Dog Wood, next to Ardingly reservoir approximately 2km West of the site.

3.2.9. Molluscs

31 species records have been found during the study for molluscs.

3.2.10. Reptiles

There were 2 species recorded of reptiles during the study within the search area, these were the Slow-worm *(Anguis fragilis*) and the Grass snake *(Natrix helvetica)*.

4. Field Survey

4.1. Habitats

The habitat survey identified seven habitat types within the site boundaries. The phase 1 habitat map, habitat codes and target notes for the site are located within Appendix C. The following habitats were recorded on site during the survey on the 15th July 2025 (in habitat code order):

4.1.1. Other Non-Cereal Crops (C1d)

A small patch of vegetable plantation exists immediately to the West of the dwelling, growing non-cereal crops such as Potato (*Solanum tuberosum*).

4.1.2. Modified Grassland (G4)

The modified grassland on site is located to the West of the building, beyond the fence that separates the dwelling's garden/ vegetable patch and the adjacent Western field. Part of the proposed plans will surpass the fenced area into this field, which is species poor grassland containing species such as Bermuda grass (*Cynodon dactylon*), Autumn hawkbit (*Scorzoneroides autumnalis)*, Spiny sowthistle (*Sonchus asper*) and Bittersweet (*Solanum dulcamara*). The area of grassland to be re-developed has also already recently been disturbed in the clearance of previous scrub habitat there.

4.1.3. Hazel Scrub (H3b)

Following the southern boundary of the site from the South-West border, linear Common Hazel (*Corylus avellana)* grows Westwards towards the woodland ~50m away. Hazel scrub also lines a small portion of the vegetable plantation at the South-West of the site.

4.1.4. Introduced Shrub (J1.4)

Areas of Butterfly bush (*Buddleja davidii*) shrub were introduced to the South-central boundary of the site. There were also Mexican orange (*Choisya ternata*), Almond willow (*Salix triandra)* and Paperplant (*Fatsia japonica)* plants surrounding the house and bordering the front garden.

4.1.5. Urban, Developed Land; Sealed Surface (U1b)

This area consists of the existing dwelling on site. A two-story house currently stands in the centre of the site, with different habitat surrounding it. There is also a static caravan to the East of the main building, and small wooden shed to the South-West. Whereas the caravan and wooden shed were seen of negligible potential to host wildlife, the dwelling possessed many roosting/ nesting features.

4.1.6. Vegetated Garden (U1b)

This is a portion of land surrounding the dwelling, making up the amenity garden area of the house. It consists predominantly of Kikuyu grass (*Cenchrus clandestinus*), with borders and patches of herbaceous planting around and within the garden, such as common dandelion *(Taraxacum officinale*). This garden area is mown and well maintained.

4.1.7. Individual Trees

There is a solitary Bay laurel (*Laurus nobilis)* tree next to the vegetable plantation that would be felled within the proposed plans. Bordering the site, also, Silver birch (*Betula pendrula)* within the Hazel scrub line the Southern corner of the site where the proposed new plans will overlap into the field adjacent. None of the trees at the time of the survey possessed bird nesting sites or bat potential roosting features. Please note (Update October 10th 2025): The Bay laurel tree has since been felled and two silver birch have come down in a storm in September. The felling of the tree occurred outside of bird nesting season.

4.2. Species

4.2.1. Amphibians

There are three small ponds of concern within 500m of the site works, as identified from the desktop survey. The three are ~250m South East in Batton's Wood, ~300m South West at the end of the line of woodland and ~100m North West within the woodland below Cob Lane. They are located in suitable habitat for amphibians such as Great Crested Newt (*Triturus cristatus)* and with connectivity to the land within the site. However, there is only a small portion of grassland taken out and lack of suitable refugia, and so the potential impact on amphibians will be low.

4.2.2. Badger

There was no evidence of badger presence within the site or in the immediate periphery of the site. The closest badger sett can be seen up the ridge running alongside Cob Lane, the driveway leading to Pickeridge Cottage. It can be said there would be a negligible impact on badgers from the proposed works.

4.2.3. Bats

During the interior inspection of the dwelling, a maternity root was visible within the loft. It is thought that the accessibility into the loft is from the broken fascia boarding and dislodged/ raised tiling just South of the Western chimney of the building.

4.2.4. Birds

There was evidence of prior nesting on-site within the hanging tiles of the dwelling at two different locations. However, during the most recent site survey (15th July) there was no activity seen around these previous nesting sites, perhaps having already fledged.

4.2.5. Hazel Dormouse

Whilst there was no evidence of Dormouse found at the time of the survey, there is presence of good foraging and nesting habitat with linear Hazel scrub and woodland ~50m West of the site works. However, the woodland and hazel habitat is small and isolated (surrounded by open fields) from the surrounding larger woodlands further afield that may be more desirable for Dormouse.

4.2.6. Invertebrates

The shrubbery, vegetable plantation and vegetated garden offer foraging and breeding habitat for common invertebrate species on site. However, the habitat area to be taken out is small and is not dissimilar to surrounding environment. There would be low potential impacts from the works on invertebrate species.

4.2.7. Reptiles

There is suitable habitat on site, and with connectivity to the land within the site especially within the field adjacent to the dwelling. However, there is only a small portion of grassland taken out and lack of refugia, and so the potential impact on reptiles will be low.

4.2.8. Water Voles

There is a lack of habitat on site and within sufficient range of suitable habitat for there to be a concern of any Water vole impacts.

4.2.9. White-clawed Crayfish

No suitable habitats are present on site. The risk of the proposed works is negligible to White-clawed crayfish

4.3. Potential Impacts of the works

Based upon the results from the desktop survey, field survey and using a degree of academic supposition, the uncompensated development impacts have been summarised as follows:

- **Amphibians – Low**
- **Badgers – Negligible**
- **Bats – High (Confirmed Maternity Roost)**
- **Birds – Moderate**
- **Flora – Low**
- **Hazel Dormouse – Low**
- **Invertebrates – Low**
- **Reptiles – Low**
- **Water Voles - Negligible**
- **White-clawed crayfish - Negligible**

5. Recommendations

5.1. Designated Sites

There would be no further action needed as no designated sites are within the work boundaries.

5.2. Habitats

No habitats of conservation value will be impacted by the works planned and so no further action is necessary.

5.3. Species

5.3.1. Amphibians

As a precautionary measure, the clearance of vegetation on the grassland should be done so in the active amphibian season (February-October). A suitably qualified Ecologist or Ecological Clerk of Works (ECoW) is to be present to oversee any vegetation >300mm that should be cut down to ~150mm and left for 1 hour before full clearance to flush any active potential reptile away from clearance site. Whilst the works are ongoing, any debris created should be kept in skips/ on pallets to prevent suitable refugia habitat. Should a Great Crested Newt be found at any stage in the development, works must cease and an ecologist should be contacted for recommendations.

5.3.2. Bats

An active maternity roost has been confirmed at the time of the site survey (15th July). To confirm the parameters of the roost (e.g. species, size of roost, emergence locations), a further three emergence surveys would have to be conducted on the site dwelling. This would also afford a greater understanding of the roost characteristics to assess further mitigations plans and procedures. Roosting features, such as bat access tiling and bat boxes should be incorporated into the newly proposed building to maintain and compensate for the existing roosting habitat taken out from the development.

5.3.3. Birds

Should any felling/ demolition be planned within the bird nesting season (1st March-15th September, species dependant), at most 24 hours prior to the demolition of the dwelling or any of the trees, nesting bird checks on site must be conducted by a qualified ecologist. This would concern, for example, the two previous nesting locations underneath the hanging tiles on the dwelling. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981. If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary to preserve this feature until the chicks have fledged the nest.

As there were two previous roosting sites seen, two bird boxes should be incorporated into the plans post development, on the dwelling or surrounding tree habitat, to maintain and compensate for the existing nesting habitat taken out from the development.

5.3.4. Hazel Dormouse

Whilst there was no evidence of Hazel Dormouse presence during the site survey, it is recommended that any Hazel scrub be left to avoid destruction of favourable habitat. Should any Hazel scrub felling be unavoidable, nest check surveys would be required from a qualified Ecologist or Ecological Clerk of Works (ECoW) prior to the removal commencing and any ongoing removal. Should any scrubland be removed, it would also be recommended that appropriate mitigation procedures are followed, dependant on which season the removal is planned for.

5.3.5. Hedgehogs

Although no evidence of hedgehogs were seen whilst undertaking the survey, it is recommended that any refugia for hedgehogs, for example the nest box in the vegetated garden to the West of the site, would be removed prior to works under supervision by a suitable Ecologist. Precautionary measures are to be incorporated if construction is undertaken inside of the hibernation period (November-March). This will be to create provisions for hedgehogs to escape from all trenches dug into the ground, by creating slopes or the providing ramps at the end of each working day. Additionally, any pipework left on site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact on the local mammal populations.

5.3.6. Invertebrates

The habitats on site provide foraging/ breeding habitat for common invertebrates on site. No habitats to provide potential of rare/ protected species of invertebrate were seen and so no further survey efforts are required.

5.3.7. Reptiles

Due to the area of grassland, the condition and suitability of the grassland habitat to be re-developed, there would be no further survey efforts necessary for the plans. As a precautionary measure, a suitably qualified Ecologist or Ecological Clerk of Works (ECoW) is to be present to oversee any vegetation >300mm should be cut down to ~150mm and left for 1 hour before full clearance to flush any active potential reptile away from clearance site. Whilst the works are ongoing, any debris created should be kept in skips/ on pallets to prevent suitable refugia habitat.

5.4. Site Enhancements

For the proposed development works, the following site enhancement measures could be incorporated into the site post-development. These measures are optional but are bespoke to the site surveyed for the enhancement of biodiversity.

5.4.1. Amphibians

As amphibians could be found within the surrounding grassland and woodland mosaic, the site could be enhanced for the local populations. Hibernacula, for example log piles, timber, rubble piles etc. could be placed in areas of the site near to the woodland to promote shelter and habitat for amphibian populations. Introduction of a run-off drainage system could also aid in affording local amphibian populations further breeding habitat. Incorporating the above site enhancement features would benefit the local herptile populations and improve their conservation status within the area.

5.4.2. Flora

Re-introducing native wildflower/ shrub patches to parts of the new site where possible, for example surrounding the walkway veranda, would maintain and promote a positive habitat within the area.

5.4.3. Hazel Dormouse

Proceeding the works, any Hazel scrubland condition could be enhanced to afford more suitable habitat within the local area. Dormouse nest boxes could be erected around the site to increase potential of species success within the local environment.

5.4.4. Hedgehogs

The site could be enhanced for the local Hedgehog (*Erinaceus europaeus*) population by installing Eco Hedgehog Nest Boxes around this area. This will create more opportunities for hedgehogs within the local landscape.

5.4.5. Invertebrates

In conjunction with the wildflower planting to preserve invertebrate habitat, it is recommended that one Bumblebee Box are incorporated into the scheme, along with one Bug Hotel. This will enhance the site for the local invertebrate populations, which will thus attract species further up in the trophic level.

5.4.6. Reptiles

As reptiles could be found within the surrounding grassland and woodland mosaic, the site could be enhanced for the local populations. Hibernacula, for example log piles, timber, rubble piles etc. could be placed in areas of the site near to the woodland to promote shelter and habitat for reptile populations. Incorporating the above site enhancement features would benefit the local herptile populations and improve their conservation status within the area.

6. References

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7. Appendices

Appendix A: Site maps and plans

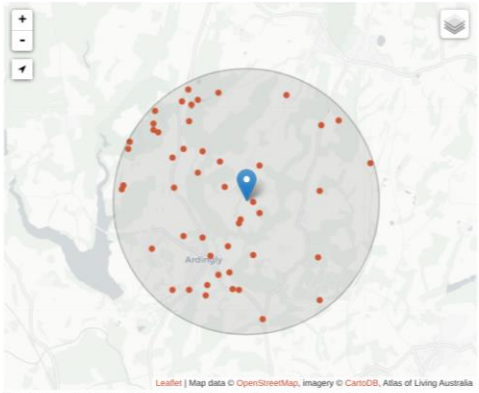
Appendix B: Ecological Data Search Maps

Showing records for: **Pickeridge Farm House, Cob Ln, Ardingly, Haywards Heath RH17 6ST, UK**

Display records in a 2 km radius View selected records

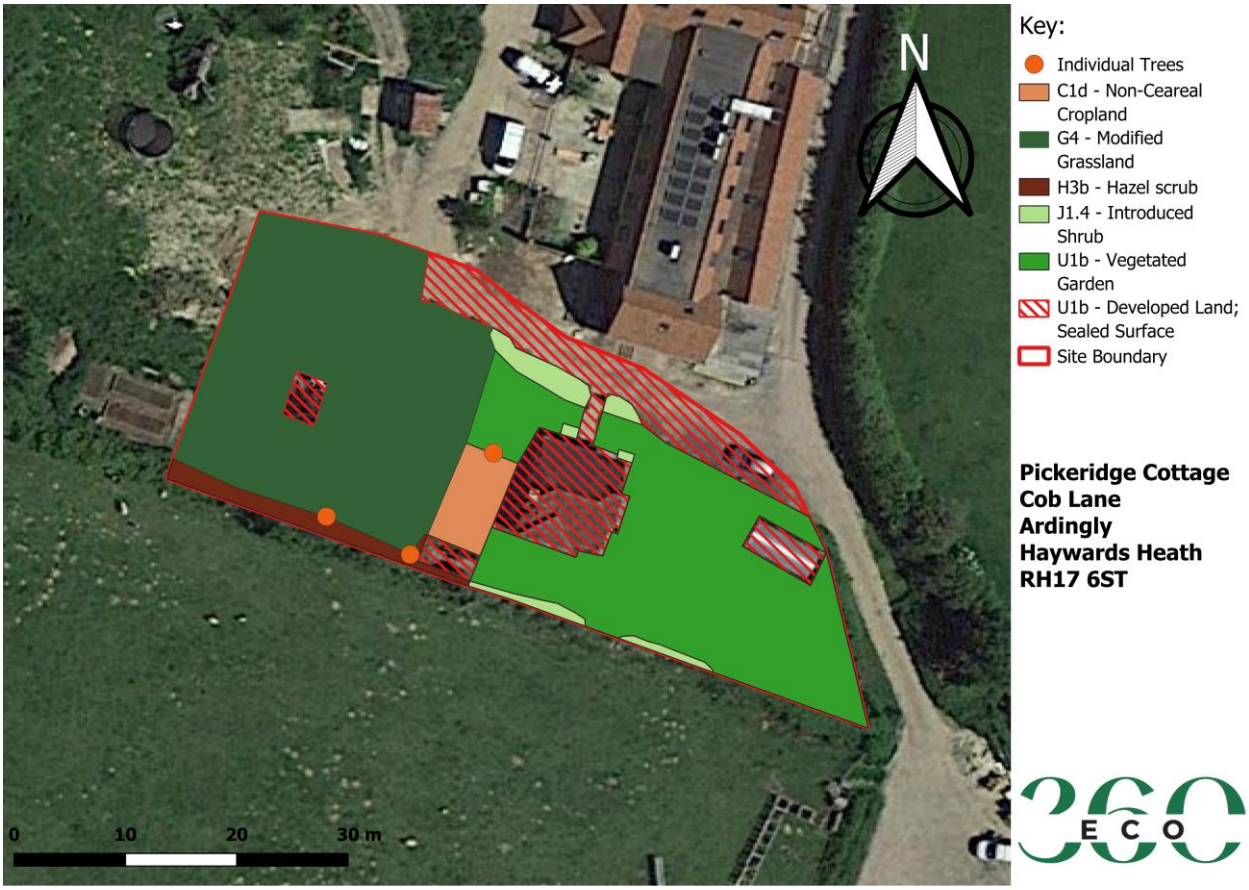
Group	Species
Allspecies	1042
Animals	558
Amphibians	4
Arthropods	400
Crustaceans	5
Insects	393
Myriapods	1
SpidersandAllies	1
Birds	98
Fishes	3
Mammals	18
Molluscs	31
Reptiles	2
Worms	0
Bacteria	0
Chromista	0
Fungi	118
Plants	366
Algae	0
Bryophytes	159
ClubmossesandFirmosses	0
FernsandAllies	10
FloweringPlants	193
GymnospermsandGinkgo	2
Hornworts	2
Protozoa	0

	Common Name	Species	Records
1.	Hedgehog	*Erinaceus europaeus*	22
2.	Grey Squirrel	*Sciurus carolinensis*	8
3.	Roe Deer	*Capreolus capreolus*	5
4.	Rabbit	*Oryctolagus cuniculus*	4
5.	Brown Long-eared Bat	*Plecotus auritus*	4
6.	Mole	*Talpa europaea*	4
7.	Fallow Deer	*Dama dama*	3
8.	Badger	*Meles meles*	3
9.	Hazel Dormouse	*Muscardinus avellanarius*	2
10.	Common Pipistrelle	*Pipistrellus pipistrellus*	2
11.	Water Vole	*Arvicola amphibius*	1
12.	Muntjac	*Muntiacus reevesi*	1
13.	Weasel	*Mustela nivalis*	1
14.	Bank Vole	*Myodes glareolus*	1
15.	Daubenton's Bat	*Myotis daubentonii*	1
16.	Noctule	*Nyctalus noctula*	1
17.	Soprano Pipistrelle	*Pipistrellus pygmaeus*	1
18.	Brown Rat	*Rattus norvegicus*	1



Tips: you can fine-tune the location of the area by dragging the red marker icon

Appendix C: Phase 1 Habitat Map



Appendix D: Site Photographs

Img.3. Vegetated garden.

Img.4. Introduced shrub areas of vegetated garden, with hedgehog nest box (Centre).

Img.5. Modified grassland section to be re-developed and Hazel scrub (Top Right).

Img.6. Vegetable plantation and solitary Bay laurel tree and small portion of Hazel scrub (Left).

Img.7. Showing broken fascia and gaps in tiling where bats are most likely entering/emerging from.

Img.8. Raised hanging tile features, on having previously been used for bird nesting (above the centre of left window).

Img.9. Previous bird nesting site under broken tile in centre of image.

Img.10. Wooden shed to South-West of site.

Appendix E: Biodiversity Legislation and Policy

General Legislation and Policy:

The framework of legislation and policy which underpins nature conservation in England. This is a material consideration in the planning process in England.

Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2010 as amended)

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation Regulations 1994 and the conservation of habitats and species regulations 2010 (and all their amendments). The Conservation of Habitats and Species Regulations 2017 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Conservation of Habitats and Species Regulations 2017 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Conservation of Habitats and Species Regulations 2017 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Wildlife and Countryside Act (WCA) 1981 (As amended)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats. & c.) Regulations 1994 (as amended), offering protection to a

wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).
Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CRoW) Act 2000
The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.
The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006
Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997
The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK Biodiversity Action Plan
The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists of Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.
The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complementary to the UKBAP, however are targeted

towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Planning Policy (England) and National Planning Policy Framework

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives. The latest National Planning Policy Framework was updated in February 2019, with the section in relation to conserving the natural environment being located within section 15.

Section 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

Species Specific Legislation

This section contains a summary of legislation with relation to the species present or potentially present in the survey area. The reader should refer to the original legislation for definitive interpretation.

Nesting and Nest Building Birds

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or

- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.
The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.
The reader is referred to the original legislation for the definitive interpretation.

Badger

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to:

- wilfully kill, injure, take or attempt to kill, injure or take a badger;
- possess a dead badger or any part of a badger;
- cruelly ill-treat a badger;
- use badger tongs in the course of killing, taking or attempting to kill a badger;
- dig for a badger;
- sell or offer for sale or control any live badger;
- mark, tag or ring a badger; and
- interfere with a badger sett by:
- damaging a sett or any part thereof;
- destroying a sett;
- obstructing access to a sett;
- causing a dog to enter a sett; and
- disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger".

Bats

All species of bat are fully protected under a variety of domestic, European and international legislation and conventions. These include:

- Bern Convention (Appendix II)
- Bonn Convention (Appendix II)
- Conservation Regulations (Northern Ireland) 1995
- Conservation of Habitats and Species Regulations 2010

- Countryside Rights of Way Act 2000
- Eurobats Agreement
- Habitats Directive (Annexes IV and II)
- Habitats Regulations 1994 (as amended) Scotland
- NERC Act 2006
- Wildlife and Countryside Act 1981 (as amended)
- Wild Mammals Protection Act

In addition to this, some species have additional protection by being listed on the UK Biodiversity Action Plan (UKBAP).

The legislation afforded to bats makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which protects birds, nests, eggs and nestlings from harm. In addition to this, some rarer species, such as barn owls are afforded extra protection.

National Planning Policy Framework, Section 15:

The published framework in 2018 replaces the previous Planning Policy Statement 9 and National Planning Policy (dated 2012).

Section 15: Conserving and enhancing the natural environment reaffirms the government's commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife. It also aims to improve the quality of the natural environment and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.

Biodiversity 2020:

This sets out to halt overall biodiversity loss and support healthy well-functioning ecosystems by establishing coherent ecological networks, with more and better places for nature, to the benefit of wildlife and people. The government's policy is aimed at individuals, communities, local authorities, charities, business and government, which all have a role to play in delivering Biodiversity 2020.

Freshwater White-clawed Crayfish

The white-clawed crayfish is partially protected under Wildlife and Countryside Act 1981 (as amended). It is listed on schedule 5 and therefore afforded protection under Section 9 (1 and 5).

Therefore, it is an offence to take white-clawed crayfish and to sell, or attempt to sell, any part of the species, alive or dead, or intend to buy or sell.

Great Crested Newt

The great crested newt (*Triturus cristatus*) is fully protected under a variety of legislation and conventions. These include:

- Bern Convention (Appendix II)
- Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)
- Conservation of Habitats and Species Regulations 2010
- EU Habitats Directive (Annex II and IV)
- Nature Conservation (Scotland) Act 2004
- NERC Act 2006 (Section 41 England; Section 42 Wales)
- Wildlife and Countryside Act 1981 (as amended)

In addition to this, the great crested newt has been listed as a priority species on the UK Biodiversity Action Plan (UKBAP).

This legislation covers all aspects of newt life stages (eggs, efts and adult newts) and makes it illegal to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Licenses can be obtained from Natural England (DEFRA) under the Conservation (Natural Habitats etc.) Regulations 1994, to permit activities for the purposes of:

- Regulation 44(2)(e): 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, or
- Regulation 44(2)(f): Preventing the spread of disease
- Regulation 44(2)(g): Preventing serious damage to any form of property or fisheries

Or

- If there is no satisfactory alternative.

The above regulations allow people to carry out activities which would otherwise be illegal.

Hazel Dormouse

Hazel Dormouse and their habitats are protected by:

- Wildlife and Countryside Act 1981 (as amended)
- Countryside Rights of Way (CROW) 2000
- The Natural Environment and Rural Communities Act 2006

- Conservation of Habitat and Species Regulations 2010

These make it an offence to:

- Capture, injure or kill a Hazel Dormouse
- Disturb a Hazel Dormouse
- Damage or destroy breeding or nesting sites in use by Hazel Dormice
- Disturb a Dormouse whilst it is occupying a structure or place that they use for shelter or protection
- Obstruct access to any structure or place that the Dormouse uses for shelter and protection.
- To possess or control any live or dead specimens.

Otter

Otters are fully protected by the European Habitats Directive (92/43/EEC) by being incorporated in annex II of the legislation. In addition to this, otters are listed on schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take an otter.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by otters.
- To intentionally or recklessly disturb an otter whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell otters.

Reptiles

All six native reptiles within Great Britain are legally protected, with the extent of protection varying dependent upon their rarity and conservation importance.

Those that receive full protection under the Wildlife and Countryside Act 1981 (as amended) are the rare sand lizard and smooth snake. These species also receive protection under the Conservation (Natural Habitats &c.) Regulations 1994 (also referred to as the Habitats Directive). This means that they are protected from deliberate disturbance, killing, injury or capture and the habitat in which they live is also fully protected against damage or destruction. Any activity involving disturbance or damage to habitats utilised by sand lizards or smooth snakes would require a licence issued by the Department of the Environment, Food and Rural

Affairs (DEFRA) following consultation with the statutory nature conservation organisation (Natural England).

The remaining four reptile species are 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), with these species being slow-worm, common lizard, grass snake and adder. This means that these species are protected against intentional killing, injuring and against sale, but their habitat is not protected. In planning terms this means that the presence of these species is a material consideration and there is a requirement to ensure that any reptile interest is safeguarded. If a proposed development is likely to have an impact on these reptiles, then the statutory nature conservation organisation must be notified, particularly if capture and translocation is being proposed. In some parts of the UK, sites that support common reptile species such as common lizards and slow-worms can qualify as County Wildlife Sites. Sites of this designation may receive protection in planning policy.

Water Voles

Water Voles are fully protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take a water vole.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by water voles.
- To intentionally or recklessly disturb a water vole whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell water voles.

Non-Native Floral Species

It is an offence under schedule 9 of the Wildlife and Countryside Act 1981 (as amended) to plant or otherwise cause non-native flora to grow in the wild. This includes the transportation of earth that has previously had non-native species growing and includes the spread of the species.

All stands of non-native floral species need to be disposed of safely at a licenced landfill site according to the Environmental Protection Act (Duty of Care) Regulations 1991.

Appendix G: Bats and Artificial Lights

Artificial lighting is known to affect bat's roosting and foraging behaviour, with lighting resulting in a range of impacts that includes roost desertion (BCT, 2009), delayed emergence of roosting

bats (Downs et al., 2003), increased activity of some bat species and decreased activity by others (Stone et al., 2012).

An experimental approach using LED units, demonstrated that relatively fast-flying bat species, including the common pipistrelle, showed no significant impacts as a result of new artificial lighting, even when lighting was set at relatively high levels close to 50 lux.

In contrast, slow flying bats such as the myotid bats (Myotis spp.) showed sharp reductions in presence, even at low light levels of 3.6 lux (Stone et al., 2012).

Current recommendations for all bat species specifies that no bat roost should be directly illuminated.

Due to the impacts of lighting, mitigation and sensitive lighting design schemes are required for projects where bats are present. These should include bat friendly lighting plans that should aim to avoid lighting wherever possible. If this is not possible, then the minimisation of any lighting impacts is required by adopting the following measures:

- To introduce lighting curfews or use of PIR sensors.

Lighting curfews can be an effective way of avoiding impacts on bats. These curfews may involve either turning off lighting or dimming light units at specific times of the night, dimming units at key times of the year, providing the luminaire allows for this option via a control unit. Lighting to be triggered by PIR sensors can be expected to be illuminated only when required and for a low proportion of time.

- To consider no lighting solutions where possible.

Options such as white lining, good signage and LED cats eyes should be considered as preferable. Reflective fittings may help make use of headlights to provide any necessary illumination in some areas.

- To use only high pressure sodium or warm white LED lamps where possible.

High pressure sodium and warm white LED lamps emit lower proportions of insect attracting UV light than mercury, metal halide lamps and white LED lighting. Generally, lamps should have a lower proportion of white or blue wavelengths, with a colour temperature <4200 kelvin recommended (BCT, 2014).

- To minimise the spread of light.

The light spread should be kept at or near horizontal to ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Baffles, hoods, louvres and shields should be used where necessary to reduce light spill.

- To consider the height of the lighting column.

While downward facing bollard lighting is often preferable, it should be noted that a lower mounting height does not automatically reduce impacts to bats as bollard lighting can often be

designed to provide up-lighting. Where bollard lighting is considered to be the most appropriate system, bollard spacing or unit density should be kept to a minimum and units should be fitted with the appropriate hoods/deflectors to reduce any up-lighting.

- To avoid reflective surfaces below lights.

The polarisation of light by shiny surfaces attracts insects increasing bat activity (BCT, 2012). Consequently, surface materials around lighting require consideration.

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