



The Stables along Greenway Lane, Ullenwood,
GL53 9QB

Preliminary Ecological Appraisal



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The results of the survey and assessment work undertaken by All Ecology are representative at the time of surveying.

Every endeavour has been made to identify the presence of protected species on site, where this falls within the agreed scope of works.

The flora and fauna detailed within this report are those noted during the field survey and from anecdotal evidence. It should not be viewed as a complete list of flora and fauna species that may frequent or exist on site at other times of the year.

Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on-site.

All Ecology cannot take responsibility where Government, national bodies or industry subsequently modify standards.

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Reference to sections or particular paragraphs of this document taken out of context may lead to misrepresentation.

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1.0 Introduction

Background

- 1.1 In January 2023, All Ecology Ltd was commissioned to undertake a Preliminary Ecological Appraisal of a site known as The Stables along Greenway Lane, Ullenwood, GL53 9QS. The site comprises a building surrounded by largely bare ground, partially bound by woodland of which some had been cleared, with a defunct fence on the northeast boundary and the southwest boundary open to the adjacent Greenway Lane.
- 1.2 The site is the subject of a planning application to permit the demolition of the existing building and its replacement with a new dwelling with associated landscaping works to include a new green geoweb driveway and hedge planting along the lane and around the new curtilage.

Objectives and Aim

- 1.3 The main objectives and aim of the survey were to identify features of ecological interest, undertake a basic search of habitats present for evidence of use, or potential use, by protected species, and to identify any other possible ecological constraints to the proposed development.

Site Location



Figure 1: Site location plan.

Aerial Photograph



Figure 2: Aerial photograph of the site.

2.0 Methodology

Personnel

- 2.1 The survey was carried out by Daniel Roberts BSc Hons QCIEEM and was overseen by James Godbeer BSc Hons MCIEEM, an ecologist with over 15 years' experience working as a consultant. James has extensive experience of managing environmental contracts, and particular experience in surveying, assessment and mitigation for rare and protected species. He has considerable knowledge of the development and planning process including Ecological Impact Assessments, sustainable ecological design and he has completed ecology chapters of Environmental Statements. James holds a number of protected species licences including bats (all species, all counties, Class Licence Registration No. 2015-12313-CLS-CLS), and Great Crested Newts (Class Licence Registration No. 2019-44282-CLS-CLS). He has successfully obtained European Protected Species mitigation licences for a number of bat species including Lesser Horseshoe, Greater Horseshoe, Serotine, Brown Long-eared, Common Pipistrelle and Natterer's bats, for a number of roost types including maternity and hibernation sites.

Habitat Survey

- 2.2 The site was visited on the 25th January 2023 and surveyed in accordance with the Joint Nature Conservation Committee (JNCC) Phase I Habitat Survey methodology (JNCC, 2010). This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential that might warrant further study.

Fauna

- 2.3 The building was inspected externally and internally following the methodology set out in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd Ed (Collins, 2016).
- 2.4 In summary, the building was searched externally and then internally, where access was available, for any evidence of use by bats and notes were made on the following:
- Location and number of any live bats.
 - Location and number of any corpses or skeletons.
 - Location and number of droppings.
 - Notes on relative freshness, shape and size of droppings.
 - Location and quantity of feeding remains.
 - Location of clean, cobweb-free timbers, crevices and holes.
 - Location of characteristic staining from urine and/or grease marks.
 - Location of known and potential access points to the roost.
 - Location of the characteristic smell of bats if no other evidence is recorded.
- 2.5 Notes were also made on the characteristics and features of the building as follows.
- Type, age and aspect.

- Wall construction, in particular the type of brick or stone used to build the walls and whether it has cavity walls or rubble-filled walls.
 - Form of the roof, in particular the presence of gable ends, hipped roofs, etc. and the nature and condition of the roof covering.
 - Presence of hanging tiles, weather boarding or other forms of cladding.
 - Nature of the eaves, in particular if they are sealed by a soffit or boxed eave and the tightness of the fit to the exterior walls.
 - Presence and condition of lead flashings.
 - Gaps under eaves, around windows, under tiles, lead flashings etc.
 - Presence and type of roof lining.
 - Presence of roof insulation.
 - Presence of water tanks in loft (note if covered or uncovered).
 - Structure of the roof including the truss type, age and nature of timber work.
 - Information or evidence of work having been undertaken that could affect use of the structure by bats.
- 2.6 The habitats present on the site were also searched for signs of other animal activity. The trees were assessed for their potential to support bat roosts by visually inspecting them from the ground using binoculars and high-powered torches where appropriate. Potential features such as holes, cavities or splits were recorded and then inspected where possible for signs of bats, which including grease/urine stains, scratch marks, droppings or the bats themselves.
- 2.7 The site and surroundings, for a minimum distance of 30 m where access was available, were searched for signs of Badgers. These include setts, latrines, dung pits, snuffle marks or hairs caught in hedges or on fencing.
- 2.8 Incidental observations of invertebrates and birds were recorded and a search made for any signs of current or previous nesting.
- 2.9 Any refuges on site such as logs or other debris were lifted and inspected for reptiles and amphibians. There were no ponds within 250 m of the site, the nearest being 275 m to the west. The Great Crested Newt Habitat Suitability Index (HSI) Assessment to assess its suitability for this species was not deemed to be necessary.

Equipment

- 2.10 Equipment used to aid the survey included a ladder, high-powered torch, mirrors endoscope, binoculars and a camera.

Assessment

- 2.11 Where a building cannot fully be inspected or the presence of bats entirely ruled out, the potential suitability of the building for roosting bats is assessed and classified as follows (Collins, 2016):
- **Negligible** – Negligible habitat features on site likely to be used by roosting bats.

- **Low** – A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
 - **Moderate** – A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
 - **High** – A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- 2.12 The surveyed building has been evaluated to assess which of the following categories it falls into, if any (Mitchell-Jones, 2004 & Collins, 2016):
- **Transitional roost** (April-September/October) - On waking from hibernation or in the period prior to hibernation, bats search for roosts in which they stay for only a few days or on some occasions several weeks. These transitional roosts can be occupied by a few individuals or occasionally small groups. The transitional roosts used prior to hibernation are generally cool and thus may allow bats to reduce their energy requirements before going into hibernation.
 - **Maternity roost** (May-August) - Breeding females gather together around the beginning of May to form nursery colonies. During this period gestation begins with births typically occurring between June and July. The females and their young remain within the maternity roost until the young are weaned and independent (late July-August). These roosts tend to break up between August and September. Adult males are rarely found within these colonies. However, the adult males of long-eared bats, Daubenton's, Natterer's, and horseshoe bats can be found roosting within maternity colonies with their numbers increasing throughout the active season.
 - **Satellite roost** (May-August) - Breeding females may have alternative roost sites in close proximity to the main nursery colony. These are referred to as 'satellite roosts'. The numbers of bats using these roosts can vary greatly, from a few individuals, to small groups.
 - **Mating roost** (September-November) - All British bats are polygynous i.e. males mate with several females. Mating generally takes place from late summer and can continue through the winter. A number of different mating strategies are used by bats, though males of some species establish mating roosts, whereby they defend territory and display/call to females to mate.
 - **Hibernation roost** (October-March) - Depending on the weather and food availability, bats tend to move to hibernation sites from October. Hibernation roosts can vary greatly in terms of the number of individuals and the diversity of species that occupy them. However, they tend to have a constant cool temperature and high humidity, which allows the bats to use less energy regulating their temperature. Bats will wake occasionally during hibernation to drink and feed.
 - **Night roost** (March-November) - Bats may use roosts other than traditional day roosting sites to rest in during the night. These roosts vary in their conservation significance.

Night roosts may be used by a single individual on occasion or they could be used regularly by the whole colony. Studies have shown that night roosts may be of particular importance to some species i.e. the Lesser Horseshoe, providing key resting places within core foraging areas.

- **Day roost** (March-November) - These roosts are used during the day to rest in. Males of most British species spend the summer roosting alone or in small groups with other males in such roosts. Bats may regularly use a number of day roosts, switching between them on a daily basis, though conversely they may occupy the same roosting site for several weeks.
- **Feeding roost** (May-November) - These roosts can be occupied by a single animal or a few individuals throughout the active season. They vary in their significance as they may be used by the whole colony or just a few individuals to feed, to shelter from the weather or to rest temporarily. Feeding roosts are often used by long-eared and horseshoe species.
- **Other considerations, Swarming sites** - Swarming takes place between August and November, whereby large numbers of bats from several species gather, generally around caves and mines. They are often dominated by the *Myotis* species and appear to be important mating sites with some bats travelling several kilometres to reach these areas. A proportion of the bats that travel to these sites will remain to hibernate.

Valuation of Ecological Features

- 2.13 The valuation process used in this report follows the Guidelines for Ecological Impact Assessment in the UK and Ireland from the Chartered Institute of Ecology and Environmental Management (CIEEM, 2006).
- 2.14 The value of areas of habitat and plant communities has been measured against published criteria where available. Biodiversity Action Plans (BAPs) have been searched to identify whether action has been taken to protect all areas of a particular habitat and to identify current factors causing loss and decline of particular habitats. The presence of injurious and legally controlled weeds has also been taken into account.
- 2.15 When assigning a level of value to a species, its distribution and status (including a consideration of trends based on available historic records) has been taken into account. Other factors influencing the value of a species are: legal protection, rarity and Species Action Plans (SAPs). Guidance, where it is available, for the identification of populations of sufficient size for them to be considered of national or international importance has also been taken into account.

Nomenclature

- 2.16 The English name only of flora and fauna species is given in the main text of this report; however, scientific names are used for invertebrates where no English name is available. Vascular plants and charophytes follow the nomenclature of The Botanical Society for the British Isles (BSBI) 2007 database (BSBI, 2007) with all other flora and fauna following the Nameserver facility of the National Biodiversity Network Species Dictionary (<http://www.nhm.ac.uk/nbn/>), which is managed by the Natural History Museum.

Limitations

- 2.17 A small portion of the building roof was lined with ceiling panels creating a small void between these and the roof could not be fully inspected for evidence of bats. The site was otherwise fully accessible.

3.0 Results

Habitats

- 3.1 The following habitats or vegetation types were identified during the course of the habitat survey:
- Building
 - Hard standing
 - Bare ground
 - Standard tree
 - Fence
- 3.2 The entrance to the site in the southeast corner leads to the stable building by a concrete track. The area surrounding the building is dominated by bare ground with occasional trees of Goat Willow, Ash and Sycamore.
- 3.3 The west to northwest boundary of the site is formed of a broken fence line with the south boundary of the site open to the adjacent lane.
- 3.4 Off-site to the north is a small pocket of broadleaved woodland with Ash and Pedunculate Oak overhanging. An area of young woodland and scrub as well as cleared woodland is present off-site to the west.



Photograph 1: View from the site entrance showing the stable building.



Photograph 2: Hard standing leading to the building in the southwest portion of the site.



Photograph 3: Bare ground which dominates the site.



Photograph 4: View of the site from the northeast looking west.



Photograph 5: Open south boundary with occasional trees.

Fauna

Bats

3.5 A small number of Common Pipistrelle day roosts were recorded on the adjacent Ullenwood Court site during surveys of buildings carried out by All Ecology in the summer of 2018 and a number of bat species are expected to be present in the surrounding area.

3.6 Stable

External – Single storey concrete block building with a corrugated asbestos roof of gable end construction. Steel sliding doors in the south gable end. Partially blocked up openings along each side leaving narrow high level openings down each side. Open eaves.

Internal – The interior of the building is well lit and open throughout with no roof void. The roof is supported by reinforced concrete posts and beams and is lined with a vaulted plasterboard ceiling although much of this had collapsed. Concrete floor.

Access for Bats – The interior of the building is easily accessible to bats through high level openings along each side, holes in the roof, gaps under the ridge and verge details, open eaves, gaps around the door.

Potential Roosting Sites – The main interior is open, well lit, and generally unsuitable for day roosting. Any potential here is likely to be for night or feeding roosts. The voids between the ceiling and roof, the roof and the tops of the walls provide roosting sites for crevice-dwelling species. The majority of the crevice voids were fully inspected and no evidence of bats was found. No evidence of bats was found within the building interior to indicate day or night roosts.



Photograph 6: View of the stable building from the south.



Photograph 7: Northwest elevation.



Photograph 8: Northeast elevation.



Photograph 9: Building interior.



Photograph 10: Gaps under corrugated roof sheets and through wall openings.



Photograph 11: Hole in the roof at the southeast end of the building.

- 3.7 None of the on-site trees on site were of sufficient age where potential roosting features for bats become more likely and none were recorded; however, trees with roosting features are expected to be present in woodland off site to the north. The site as a whole provides poor habitat for foraging bats, being dominated by bare ground, and no habitat suitable for commuting is present. However, areas adjacent such as young woodland, scrub and woodland edge is expected to be used by at least small numbers of bats which will also pass over the site, and mature woodland edge may be used by commuting bats. The area is known to support a wide range of bat species.

Badgers

- 3.8 The habitats on site are poor, having minimal vegetation with little potential for foraging or the construction of setts and any potential for Badgers is limited to animals passing through the site. No evidence of Badgers such as dung pits, latrine, digging, or setts were found on site or in the immediate surroundings. Badgers are considered to be absent.

Water Voles and Otters

- 3.9 There are no watercourses on site. Watercourses are present in the surrounding area but these are well separated from the site. The site is therefore regarded as being unsuitable for both Otters and Water Voles.

Other mammals

- 3.10 There are no suitable habitats for Dormice on site while it is possible that this species is present in woodland in the surroundings. The site is dominated by bare ground which provides poor habitat for foraging mammals and any opportunity of cover is limited to isolated areas of brash. Potential for notable or protected species is regarded as negligible and it is expected that only common species would be present on site occasionally.

Birds

- 3.11 The majority of the site provides poor foraging habitat with any nesting potential limited to a small number of trees and the stable building. The survey was carried outside of the bird nesting season so indications of previous nesting were recorded of which none were found. Birds may nest in the buildings and trees in the future.

Reptiles

- 3.12 The site provides poor habitat for reptiles with only small isolated piles of brash offering temporary refuges. There is no significant potential for reptiles to be present on site.

Amphibians

- 3.13 The site provides poor terrestrial amphibian habitat in the form of bare ground, hard standing and buildings with small piles of brash and occasional trees. With regards to the specially protected Great Crested Newt, there are no ponds within the 100 m or 250 m radii usually considered for minor developments, the nearest being 275 m to the west. This was therefore not subject to a Great Crested Newt Habitat Suitability Index (HSI) Assessment and no further consideration of this species is required.

Invertebrates

- 3.14 The habitats on site are poor value habitats which provide very limited opportunity for invertebrates. Assemblages of common invertebrates may be present within adjacent habitats such as woodland but there is no potential for rare or notable species to be present on the site.

4.0 Development Constraints and Recommendations

Development Proposals

- 4.1 The site is the subject of a planning application to permit the demolition of the existing building and its replacement with a new dwelling with associated landscaping works to include a new green geoweb driveway and hedge planting along the lane and around the new curtilage.

Habitats

- 4.2 The majority of vegetated habitats on site have previously been cleared. The habitats now present are of low ecological value and are easy to replace. No significance is associated with removal or changes in existing habitats.
- 4.3 New native hedges are to be planted along the south boundary of the site along Greenway Lane and to enclose the new curtilage of the site. It is recommended that the hedge along Greenway Lane be created as a species-rich hedge. The following mix is suggested to encourage wildlife: Hawthorn 40%, Blackthorn 15%, Hazel 10%, Field Maple 10%, Holly, Dog-rose, Spindle, Wild Privet and Wych Elm, all 5%.
- 4.4 Where other new areas of habitat are to be created, consideration should be given to the seeding of these areas using appropriate seed mixes. Where possible these seeds should be locally sourced to support the genetic integrity of local wild plant populations. Where new trees or shrubs are to be planted, native tree and shrub species should be used as these are most beneficial to invertebrates, and many also produce seeds, nuts and berries that are food for native mammals and birds. Planting of non-native plant species should be limited to those that are not invasive and should prioritise those that provide a good source of nectar for invertebrates.

Protected and Notable Species

Bats

- 4.5 The building on site was assessed for its potential to support bats and was found to provide negligible potential for roosting bats with no evidence to indicate day or night use. It can be confidently concluded that roosting bats are absent and no further surveys are therefore required.
- 4.6 As a precaution, all demolition works should be carried out with care and vigilance for bats and contractors should be advised to adhere to the following procedures in the highly unlikely event that bats are found in the buildings during works:
- If the roost is still in the structure and bats are not injured, stop work and contact a licensed ecologist. If help is not available, allow bats to fly out of harm's way.
 - If material containing a roost has been removed, the roost is not exposed and the bats are not injured, temporarily seal and isolate the roost, stop work and seek advice from a licensed ecologist. If advice is not readily available, re-open it and allow bats to relocate of their own accord.

- If the roost has been exposed, and especially if bats have been injured, stop work, collect bats in a secure box or bag (using a glove) and contact a licensed ecologist
- 4.7 None of the trees on site appeared to have features that could be used by roosting bats. However, if any require removal or tree surgery works, the following procedures should be employed in the unlikely event that a bat or bats are discovered:
- If the roost is still on the tree and bats are not injured, seek advice from a licensed ecologist. If help is not available, allow bats to fly out of harm's way.
 - If the timber is felled, the roost is not exposed and the bats are not injured, temporarily seal and isolate the roost and seek advice from a licensed ecologist. If advice is not readily available, position the roost off the ground, re-open it and allow bats to relocate of their own accord.
 - If the roost has been exposed, and especially if bats have been injured, collect bats in a secure box or bag (using a glove) and contact a licensed ecologist.
 - Note the date, locality, type of tree, situation in tree and bat species if known.
- 4.8 The site as a whole provided poor foraging habitats for bats but it is a given that least some bats will forage on site due to the adjacent woodland and scrub. The change of use of the site to a domestic dwelling and garden will result in changes to the habitats but provided a suitable lighting strategy is implemented any significant impacts to foraging bats or those commuting past the site are likely to be negligible. Measures should include the use of lighting only where absolutely necessary utilising highly directional warm white LED lighting, an example being down spots at 2.5 m high using warm white (2700 K) 8W LED lamps, 550 lumens, 35 degree beam angle. These could be individually activated by PIR sensors on a 5 minute cut off to further reduce their impacts. These will assist in lighting only the areas where lighting is required and minimising light spill either directly or through reflected light. The woodland edge must remain unlit.
- 4.9 Consideration should be given to providing bat roosting features either on/in the new building or by installing boxes on nearby mature trees.

Other mammals

- 4.10 The potential for other species of protected or notable mammal species to use the site is deemed to be negligible. No constraints are predicted as a result of the potential presence of passing small mammals, Badgers and other larger mammals such as deer. As a precaution it is recommended that during the construction phase of the project any trenches and other excavations are back-filled before nightfall or a ramp left to allow animals to easily exit, and any open pipes larger than 150 mm should be capped off overnight.

Birds

- 4.11 No evidence of previous nesting of birds was recorded within the trees or building but birds may nest on site in the future. All nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments). No further surveys are required at this time but as a precaution it is recommended that any demolition works and tree removal be carried out outside of the bird-nesting season of March to August (September for the building). Where this is not possible, the vegetation and buildings would need to be surveyed for nesting birds by a suitably qualified

ecologist prior to works commencing. If they are found, then the nest and surrounding habitat must remain intact until the young have fledged.

4.12 The new building is likely to provide a good opportunity to enhance the site for birds and one or more of the following options could be explored for inclusion on the north and/or east sides of the building:

- Groups of individual boxes or colony boxes for species such as House Sparrows and Starlings.
- Individual boxes, such as the Schwegler Bird Home 1MR, could also be installed at a height of at least 2 m.
- Boxes could also be installed on retained trees; these should be fixed a minimum of 2 m from the ground, with the entrance hole between north and east. This avoids the worst of the weather and prevents the box and its inhabitants becoming overheated in sunny weather.

4.13 In order to enhance the site, it is recommended that any new planting on site should concentrate on species that are native to the area and ideally produce a range of seeds and berries at varying times of the year. Nectar rich plants could also be used encourage invertebrates on to the site, which in turn provide food for birds as well as other species such as bats. Any overall loss in value of the site for birds is unlikely and the provision of nesting opportunities and any new gardens will provide new habitat for these species.

Invertebrates

4.14 The potential for significant numbers of invertebrates on the site is considered to be negligible. In order to enhance the development site for invertebrates, consideration should be given to providing dead wood piles on site, as well as invertebrate homes for pollinators. This is not only beneficial to invertebrates but also other species groups that depend on them, bats, birds, wildflowers etc.

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