



LOWER LODGE, STON EASTON

Ecological Appraisal

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ABBREVIATIONS

Abbreviation	
BAP	Biodiversity Action Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
EclA	Ecological Impact Assessment
IEF	Important Ecological Features
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographic Information for the Countryside
PEA	Preliminary Ecological Appraisal
SC	Secondary Code
UK	United Kingdom

Abbreviation	
WCA	Wildlife and Countryside Act 1991 (as amended)
NERC	The Natural Environment and Rural Communities (NERC) Act 2006
EU	European Union
UK Habs	UK Habitats Classification
MMU	Minimum Mappable Unit
PRA	Preliminary Roost Assessment
BCT	Bat Conservation Trust
JNCC	Joint Nature Conservation Committee
PRF	potential roosting features
Zol	Zone of Influence
SSSI	Site of Special Scientific Interest
HoPI	Habitat of Priority Importance

1. INTRODUCTION

- 1.1. Engain was commissioned by Cloverleaf Limited to undertake a Preliminary Ecological Appraisal (PEA) of Lower Lodge, Ston Easton (hereafter referred to as the 'site'), in connection with a full planning application for an extension of the lodge building and the formation of a new driveway (hereafter referred to as the 'Development'. As part of the proposals, selected trees within woodland will be removed. Refer to Appendix 1 for the Development.
- 1.2. The scope of the appraisal was based on the Guidelines for Preliminary Ecological Appraisal, published in 2017 by Chartered Institute of Ecology and Environmental Management (CIEEM). This included a desk study to identify any notable or protected sites, habitats or species on or near to the site, a field survey to map and describe the habitats of the site, a review of existing ecological data and an assessment of the site's potential to support any notable or protected species.
- 1.3. The purpose of this report is to:
 -
 - identify the likely ecological constraints associated with the Development;
 - identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy';
and
 - identify opportunities to deliver ecological enhancement.
- 1.4. Further details of the survey and assessment methods are given in Section 4.

2. SITE LOCATION AND GENERAL DESCRIPTION

Site Location

- 2.1. The site is located within the village Ston Easton, approximately 14km southwest of Bath. The Ordnance Survey grid reference for the centre of the site is ST 62281 54056.

General Description

- 2.2. The site is approximately 0.16ha in area and comprises the land used for a gatehouse of the Ston Easton Park estate. The site comprises the gatehouse, a shed and woodland to the north and east of the gatehouse.
- 2.3. According to Soilscape, the soil at the site is shallow lime-rich soils over chalk or limestone.

3. LEGISLATION AND POLICY

Introduction

- 3.1. Wildlife in the UK is protected through European Directives, which are transposed into national legislation, supported by a range of national and local policy and guidance. Recent changes in planning policy and legislation have gone beyond site and species-specific protection to set broader goals for the conservation and enhancement of the natural environment and halting the continued loss of biodiversity in the UK.
- 3.2. Development can contribute to these goals through, for example, protecting the best features of a site and making them a valued part of the site's new use, and by incorporating enhancements to improve the site's value for wildlife.
- 3.3. The sections below provide a brief guide to the principal legislation and policy that sets the terms of reference for ecological appraisals in the UK. This is not intended to be a full description of all the obligations enacted by the various referenced documents, which should be referred to in their original form for the full details.
- 3.4. It is the responsibility of those involved with the development works to ensure that wildlife protection and nature conservation legislation is complied with at every stage of the project. Such legislation applies even in the absence of related planning conditions.

Relevant Legislation

- 3.5. The principal pieces of legislation relating to wildlife that are of relevance to this report are:
 - *The Environment Act 2021*
 - *EU Habitats Directive (1992)*;
 - *Conservation of Habitats and Species (Amendment) Regulations 2017*;
 - *The Wildlife and Countryside Act 1981 as amended (WCA)*; and
 - *The Natural Environment and Rural Communities (NERC) Act 2006*.

- 3.6. The main focus of much of this legislation is the protection of sites and species, the delineation of precisely how they are protected, and what actions would constitute an offence. This report provides guidance on whether any protected features are likely to be affected by the development proposal, and how offences under the legislation can be avoided.

Relevant Policy

- 3.7. Regional and local planning authorities are obliged to follow key principles to ensure that the potential impacts of planning decisions on biodiversity conservation are fully considered. *The National Planning Policy Framework* sets out the Government's policies for the protection and enhancement of biodiversity through the town and country planning system. This encourages the contribution to, and enhancement of, natural and local environments through minimising the impacts on biodiversity and providing net gains in biodiversity where possible.
- 3.8. Planning authorities are required to follow key principles in their consideration of potential impacts of planning decisions on biodiversity conservation. *Circular 06/05: Biodiversity and Geological Conservation* provides guidance on the application of the law relating to planning and nature conservation and complements the *National Planning Policy Framework*.
- 3.9. The presence of species protected under UK and European legislation are a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Ecological appraisals and protected species surveys are therefore designed to provide local planning authorities with the baseline information they require in order fully consider the potential ecological effects of a planning application.
- 3.10. *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*, provides the *UK Biodiversity Action Plan* and country level biodiversity strategies for England, based on the list of habitats and species listed under *The NERC Act 2006*.

Local Planning Policy

- 3.11. The Mendip District Local Plan, adopted in 2014, sets out a long-term strategic vision for the future of the District and how it will develop over the next 15 years. The following policy is relevant to this assessment.

DP5: Biodiversity and Ecological Networks:

The Council will use the local planning process to protect, enhance and restore Somerset's Ecological Network within Mendip.

1. *All development proposals must ensure the protection, conservation and, where possible, enhancement of internationally, nationally or locally designated natural habitat areas and species.*
2. *Proposals with the potential to cause adverse impacts on protected and/or priority sites, species or habitats are unlikely to be sustainable and will be resisted. Exceptions will only be made where:*
 - a. *The impacts cannot be reasonably avoided,*
 - b. *offsetting/compensation for the impacts can be secured,*
 - c. *other considerations of public interest clearly outweigh the impacts, in line with relevant legislation.*

Offsets as mitigation or compensation required under criterion b) will be calculated using Somerset County Council's Biodiversity Offsetting methodology

Mendip Biodiversity Action Plan

- 3.12. Local biodiversity action plans give valuable information on local conservation priorities. The Mendip Local Biodiversity Action Plan (2008) (LBAP) is the local biodiversity action plan relevant to this site and highlights the value of habitats found in the region.
- Relevant targets to development are as follows:
 - Reduction in biodiversity loss from the development and an increase in the number of significant developments where biodiversity is enhanced
 - Fewer developments affecting Local Wildlife Sites (LWS) and BAP priority habitats

4. METHODOLOGY

Desk Study

- 4.1. Bristol Regional Environmental Records Centre and Somerset Environmental Records Centre has provided records of notable sites, habitats and species in the last 10 years. The search area was set at a radius of 1km from the site boundary for protected and notable species (excluding bats) and 5km for bats.
- 4.2. Online resources were also used, including the UK government's online resource for geographic information about the natural environment (MAGIC Map). This and other resources were used to scope the habitat survey at an appropriate scale and level of detail. MAGIC maps and the previous ecology reports were checked to identify if there were any known or possible locations of rare and/or habitats of high nature conservation priority.

Habitat Survey

- 4.3. A habitats survey was conducted on the 3rd August 2022. The field survey method was based on the UK Habitats Classification (UK Habs) as per the UK Habs User Manual.
- 4.4. Considering the size of the site and the nature of variation in habitats across the site, the appropriate scale of mapping was determined to be a fine scale MMU, meaning no areas of habitats less than 25m² or 5m in length if a linear feature need to be recorded.
- 4.5. The Primary Habitats were mapped using the professional edition of the hierarchy, at a minimum of a Level 4 habitat using the UK Habs Habitat Definitions as a guide. Once a Primary Habitat was assigned, a Secondary Code was added to further define the habitat type. Habitats are described with reference to their dominant and constituent species, and their UK Habs codes are given in the relevant sections. In some cases, secondary codes are referred to where there is sufficient variation in the habitat to warrant their use.
- 4.6. Any obvious signs of invasive species listed on *Schedule 9 of The Wildlife and Countryside Act 1981* such as Japanese knotweed (*Reynoutria japonica*), Himalayan balsam (*Impatiens grandiflora*) and giant hogweed (*Heracleum mantegazianum*).

Preliminary Roost Assessment

- 4.7. On the 3rd August 2022, an experienced ecologist undertook a ground level Preliminary Roost Assessment (PRA) of the buildings on site. The methodology of the PRA followed the Bat Conservation Trust (BCT) Bat Surveys: Good Practice Guidelines (Collins, 2016) and the Joint Nature Conservation Committee (JNCC) Bat Workers' Manual (Mitchell-Jones & McLeish, 2004).
- 4.8. The buildings were inspected visually, using binoculars during daylight hours for potential roosting features (PRFs) such as broken tiles, lifted lead flashing and gaps in the soffits and any evidence of previous or current usage by bats. This included searching for evidence of bats such as urine or oil stains and droppings.
- 4.9. Based on the results of the PRA, the buildings were assigned a bat roosting potential rating of either:
- Known / confirmed roost
 - High;
 - Moderate;
 - Low; and
 - Negligible.

Internal Bat Survey

- 4.10. On the 3rd August 2022 an experienced surveyor completed an internal inspection of the lodge house for bats.
- 4.11. The survey methodology followed best practice (Collins, 2016) and involved a systematic check inside the building for evidence of roosting bats, such as the bats themselves, droppings, feeding remains (butterfly wings) and urine staining.

Evening Emergence Bat Survey

- 4.12. As Building B1 was found to have moderate potential for bats, two further evening emergence surveys were undertaken.
- 4.13. The bat surveys were carried out according to standard guidance (Collins, 2016; Mitchell-Jones, 2004; and Mitchell Jones & McLeish, 2004).
- 4.14. Two surveyors were positioned strategically to be able to see any identified PRFs to enable full coverage. Refer to Appendix 2 for the bat surveyor locations.
- 4.15. Dusk activity surveys began at 15 minutes before sunset and continued for one and a half hours thereafter.
- 4.16. Details of the bat activity survey schedule, including dates, times and weather conditions, are provided in Table 1.

Table 1, "Details of bat emergence survey schedule"

Date	Time Start / Finish	Sunset / Sunrise time	Temp (°C)	Weather Conditions*
01/09/2022	19:43 / 20:30	19:57	20	Rain: 0 Cloud: 5 Wind: 2
15/09/2022	19:10 / 20:55	19:25	15	Rain: 0 Cloud: 7 Wind: 0

* Wind in the Beaufort scale and cloud cover in octas.

4.17. Visual observations were supported by the use of ultra-sonic bat detectors. A variety of hand-held detectors (EM3+, BatBox Duet and EMTouch) were used.

Evaluation for Protected Species

4.18. Considering the site location, context and the habitats it contains, the following protected species are considered in this report:

- Badgers (*Meles meles*);
- Bats;
- Birds (breeding);
- Dormice (*Muscardinus avellanarius*);
- Hedgehog (*Erinaceus europaeus*)
- Reptiles; and
- Terrestrial invertebrates.

4.19. The site is not suitable for great crested newt (*Triturus cristatus*), otters (*Lutra lutra*), water voles (*Arvicola amphibious*) or white-clawed crayfish (*Austropotamobius pallipes*) due to the lack of suitable terrestrial habitats and waterbodies including ditches and streams on and off the site. These species are not considered further in this report.

Zone of Influence

4.20. The Zone of Influence (Zol) for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries.

4.21. Based on the scale and nature of the development, it has been assessed that the Zol arising from these works is unlikely to be greater than 1km from the centre of the site. Therefore, these distances have been used to collect the ecological data search information.

4.22. The habitat survey area comprised primarily the site. However, adjacent land was viewed where possible. As referenced in industry guidance, potential Important Ecological Features (IEFs) that are present or potentially present on and off the site which may be impacted by the proposed development have been considered.

Important Ecological Features

4.23. The relative nature conservation value of ecological features is also assessed against published criteria wherever possible. The value of habitats in the UK is covered in a wide variety of literature, including Usher (1986) and Ratcliffe (1977). The habitats and species of principal importance for biodiversity in the UK are listed on *Section 41 of NERC Act 2006*.

4.24. The main criteria against in assessing IEFs are rarity, diversity, naturalness and extent. High importance is also attached to habitats that have not been subject to agricultural intensification, and which often depend on traditional forms of management, such as ancient semi-natural woodland, species-rich meadows and traditionally managed grasslands and moorlands.

- 4.25. Not all potential or confirmed IEFs within the Zol have the potential to be significantly affected by the development or legislation pertaining to them to be contravened. Therefore, where features are unlikely to be affected by the proposed development, or where any effects that impact IEFs are unlikely to be significant, for the reasons listed below, such features have been scoped out of the assessment:
- 4.26. No pathway of effect has been identified, for example the feature is sufficient distance from the Site or there is the presence of a barrier between its location and the Site; or
- 4.27. The feature is of insufficient biodiversity conservation value within the Zol, due to its quality, extent or population size.
- 4.28. At the PEA stage, there maybe not enough data or information to assess whether an ecological feature is an IEF, in which case further surveys may be required to allow a robust assessment to be undertaken at a later stage. Where this is the case, this is set out in this report.

Limitations

- 4.29. Engain cannot verify the accuracy of third-party information.
- 4.30. The field survey is not definitive and represents a snapshot of the ecological status of a site. Furthermore, data records help to provide a historical context, however the absence of evidence of a species does not prove that it does not use the site.
- 4.31. The site was freely accessible with no impeded areas.

5. RESULTS

Desk Study

Statutory Designated Sites

5.1. This site is not subject to any statutory designations. Long Dole Wood and Meadows Site of Special Scientific Interest (SSSI) is the only statutory designated site within 2km, at a distance of 1.98km north-west of the site.

Non-Statutory Designated Sites

5.2. This site is not within a non-statutory designated wildlife site. The Local Wildlife Site (LWS), Rush Hill Wood is the only non-statutory designated site within 1km, at a distance of 0.725km north-east of the site.

Habitats

5.3. During the field survey, the following habitats were recorded:

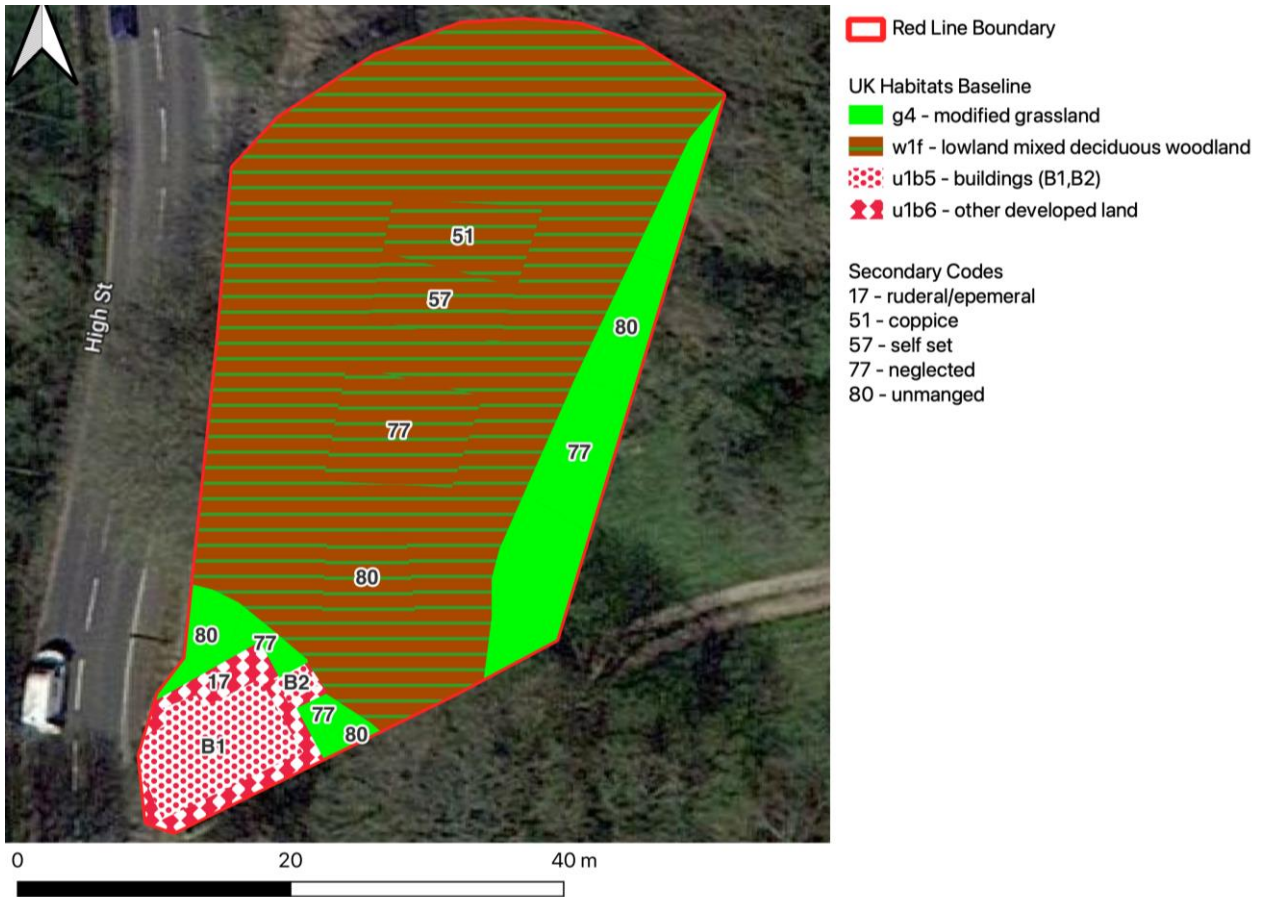
- Buildings (u1b5);
- Lowland mixed deciduous woodland (w1f); and
- Modified grassland (g4).

5.4. **Table 2** sets out the Secondary Codes used to provide further context to this report. Refer below for **Figure 1** for the Habitats Map.

Table 2, "Secondary Codes"

Secondary Code	Label
SC17	Ruderal/ephemeral
SC51	Coppice
SC57	Self-set
SC77	Neglected
SC80	Unmanaged

Figure 1, "Habitats Map"



<p>Environmental Gain Ltd Unit 8 Westway Farm, Bishop Sutton, Somerset, BS39 5XP T: 01225 459 564</p>	<p>ON BEHALF OF Cloverleaf 100 Limited</p>	<p>PROJECT Lower Lodge Ston Easton</p>
	<p>SCALE NTS</p> <p>PROJECT NO eg211198</p>	<p>DATE 26/08/2022</p> <p>APPROVED SR</p>

Building (u1b5, 14)

- 5.5. One, small brick building (B1) is present on site (Photos 1 and 2). It has a hipped roof (with a substantial roof void – Photo 3), lead flashing and Roman clay tiles. The building is currently vacant. The brickwork is in good condition, with no obvious holes or cracks in the mortar. The roof is generally in good condition; however some tiles are cracked and there are areas of lifted lead flashing.
- 5.6. A wooden shed (B2) is located adjacent to B1 (Photo 4).
- 5.7. Surrounding B1 is a patio (other developed land) with ruderal/ephemeral (SC17) plants growing in the cracks. Species recorded included (*Geranium robertianum*), willowherb species (*Epilobium spp.*), broad leaved dock (*Rumex obtusifolius*), dogs' mercury (*Mercurialis perennis*), prickly sow thistle (*Sonchus asper*) and dandelion (*Taraxacum spp.*)

Photo 1, "Front of B1 (southern aspect)"



Photo 2, "Rear of B1 (northern aspect)"



Photo 3, "Example of B1 roof void with abandoned wasp nest"



Photo 4, "Shed, B2"



*Photo 5,
"Hardstanding colonised with ephemeral plants"*



Lowland mixed deciduous woodland (w1f, 51, 57, 80)

- 5.8. There is a stand of lowland mixed deciduous woodland adjacent to B1 and B2. Tree species recorded comprise small leaved lime (*Tilia cordata*), sycamore (*Acer pseudoplatanus*), beech (*Fagus sylvatica*), English oak (*Quercus robur*), ash (*Fraxinus excelsior*) and hazel (*Corylus avellana*).
- 5.9. According to MAGIC, the woodland is designated as lowland mixed deciduous woodland priority habitat (i.e. a Habitat of Principal Importance), however, it does not meet the criteria required to justify the classification, due to the poor variety of species in the ground flora and canopy.
- 5.10. Along the outer edges of the woodland, the understory was relatively species rich, with the following species recorded; dog's mercury, creeping buttercup (*Ranunculus repens*), lords and ladies (*Arum alpinum*), nettle (*Urtica dioica*), pendulous sedge (*Carex pendula*), fox glove (*Digitalis purpurea*), dog rose (*Rosa canina*) and self-set (SC57) rhododendron saplings (*Rhododendron ponticum*). Within the inner areas of the woodland, the understory was limited to ivy and self-set (SC57) ash saplings only, likely due to the dense tree canopy limiting the amount of light getting through.
- 5.11. The woodland is currently not managed (SC80) as evidenced by the poor species diversity on the understory and lack of a variety of age classes of the trees (i.e. mainly mature or self-set saplings) within. However, the hazel trees appear to have been coppiced (SC51) historically.

***Photo 6,
"Woodland with species poor understory"***



***Photo 7,
"Example of species poor understory"***



Modified grassland (g4, 77, 78).

- 5.12. There is a lawn (modified grassland) adjacent to B1. Grass species recorded included cock's foot (*Dactylis glomerata*), perennial rye grass (*Dactylis glomerata*). Herbaceous species include creeping buttercup, herb Robert, hogweed (*Heracleum sphondylium*) and nettle. The habitat is currently unmanaged (SC80) and neglected (SC77).

Photo 8, "Example of modified grassland"



Invasive species

- 5.13. Several rhododendron saplings were recorded within the woodland. They appear to have self-set from rhododendron plants located in the woodland adjacent to the site.

Protected and Notable Species

Badgers

Desk Study

- 5.14. There are two records of badgers within 1 km of the site including one record from 2014 located 0.2km west of the site.

Field survey

- 5.15. Although the site and adjacent land within 30m is suitable for sett building no badger setts were present.

Bats

Desk Study

- 5.16. The data search returned a total of 472 records of twelve species of bats within 5 km of the site, most notably records of greater horseshoe bats (*Rhinolophus ferrumequinum*) and lesser horseshoe bats (*Rhinolophus hipposideros*). There are 76 records of bat roosts in the data search and 26 approved European Protected Species Licenses (EPSL) for bats in MAGIC.

Roosting

- 5.17. There was no evidence of roosting bats internally or externally of Building B1. There are however potential roosting features (PRFs) for crevice dwelling species, such as lifted tiles (Photo 9), gaps in wooden fascia (Photo 10) and between the lead flashing and the chimney (Photo 11).
- 5.18. The loft of B1 (Photo 3) offers roosting potential for void-dwelling species such as brown long-eared bats (*Plecotus auritus*).
- 5.19. Building B1 has **moderate** potential for roosting bats.
- 5.20. Building B2 has no opportunities for roosting bats and it is rated as **negligible** potential for roosting bats.

5.21. All the trees proposed to be removed to facilitate the development have **negligible** potential for roosting bats.

Commuting and foraging

5.22. The habitat offers opportunities for commuting and foraging bats. The woodland links the site up with the wider locale, where bat roosts are known to be present. Furthermore, the site is currently not lit and is vacant. The site is of **moderate** quality for commuting and foraging bats.

Photo 9, "Gaps under the Roman tiles"



Photo 10, "Gaps under the wooden fascia"



Photo 11, "Gaps between the chimney and lead flashing"



Emergence Surveys

- 5.23. On the 1st of September 2022, the first evening emergence survey was undertaken on Building B1. No bats were observed emerging or re-entering the building. High levels of foraging serotine and common and soprano pipistrelle activity was observed throughout the survey. The first recording of common pipistrelle was at 20:12, indicating there is a common pipistrelle roost near to the site.
- 5.24. On the 15th of September 2022, the second evening emergence survey was undertaken on Building B1. Again, no bats were observed emerging or re-entering the building. High levels of foraging serotine and common and soprano pipistrelle activity was again observed throughout the survey. The first recording of common pipistrelle was at 19:33, further supporting the likely presence of a common pipistrelle roost near to the site

Birds

Desk study

- 5.25. The data search returned 73 records of birds within 1km of the site, with relevant records including house sparrow (*Passer domesticus*), barn owl (*Tyto alba*), hobby (*Falco subbuteo*), house martin (*Delichon urbicum*), dunnock (*Prunella modularis*), little owl (*Athene noctua*) and swallow (*Hirundo rustica*).

Field survey

- 5.26. The woodland habitat on site offers opportunities for nesting and foraging for common and notable species of birds such as house sparrow and blackbird (*Turdus merula*).
- 5.27. Building B1 and B3 offer very limited opportunities for nesting birds.

Dormice

Desk study

- 5.28. There were no records of dormice (*Muscardinus avellanarius*) within 1 km of the site, the closest was 1.6km north-east of the site.

Field survey

5.29. Within the woodland several woody species typically associated with dormice were recorded such as hazel, English oak and sycamore, and there is suitable habitat for foraging, nesting, hibernation and commuting dormice. Furthermore, the on-site woodland is part of a larger woodland which links into the wider landscape. However, the woodland has a poor vertical structure and species-poor understory and would therefore be likely to support only a limited number of individuals, if any at all.

Hedgehog

Desk study

5.30. There were no records of hedgehogs found within 1km of the site. The habitats around the buildings could be used by hedgehogs.

Reptiles

Desk study

5.31. There were no records of reptiles found within 1km of the site.

Field survey

5.32. The habitats on site offer very limited opportunities for all species of reptiles. The grassland, the only habitat that may offer opportunities for basking and foraging reptiles, is very small in extent and would therefore be likely to support only a limited number of individuals, if any at all.

Terrestrial Invertebrates

Desk study

5.33. One record for terrestrial invertebrates within 1km of the site was returned, the Essex skipper (*Thymelicus lineola*), which was recorded 0.7km south-west of the site in 2008.

Field survey

5.34. The overall diversity of plant species within the site is limited, which in turn limits the number of foraging opportunities for common and notable species of invertebrate.

6. EVALUATION AND RECOMMENDATIONS

- 6.1. Based on the survey data collected to date, the only ecology receptors within the Zol that would constitute Important Ecological Features are roosting bats.
- 6.2. The following ecological features have been scoped out from future assessment due to the population size, because the area likely to be affected by the development is of insufficient size or diversity to be of ecological value, and/or because there is no potential effect pathway between the development and these features. These ecological features and their rationale have been identified in **Table 3**. Measures in line with the mitigation hierarchy are also included. Any legislative requirements relating to these ecological features, if required, are further detailed in **Table 4**.

Table 3, "Ecological Features to be Scoped Out of the Assessment"

Ecological Feature	Rationale for Scoping Out
Designated sites	<p>The site is at a sufficient distance from the nearest statutory designated site that no effects would occur.</p> <p>No significant impacts are anticipated because of the development.</p>
Habitats (including woodland HoPI)	<p>Most of the habitats on site have low conservation value. Whilst the woodland is designated as a HoPI on MAGIC map, it fails to meet the criteria required for the designation. Due to the proposed tree loss being extremely limited, it is not likely to have a material negative impact on the woodland.</p> <p>It is recommended a Construction and Environmental Management Plan (CEMP) will be implemented to prevent any accidental damage of retained habitats.</p> <p>No significant impacts are anticipated because of the development.</p> <p>It is recommended as an enhancement measure, the woodland is placed under a management regime (with strategies such as opening up the canopy, creation of woodland rides and rotational coppicing) to improve the species diversity and structure of the woodland, making it more beneficial to wildlife. This management will be secured via a Landscape and Ecological Management Plan (LEMP).</p>
Bats (foraging and commuting)	<p>The site offers moderate opportunities for commuting and foraging bats due to the presence</p>

Ecological Feature	Rationale for Scoping Out
	<p>of the woodland which links the site to the wider locale. Furthermore, the site is not currently lit at night as it is vacant.</p> <p>It is understood that several trees will be removed to facilitate the development. However, the extent of the woodland on the site is limited and forms part of the wider woodland. The loss of the trees on the site will not cause fragmentation as the overall continuity of the commuting route will be maintained.</p> <p>No significant impacts are anticipated because of the development.</p> <p>it is recommended that any proposed artificial lighting should be located and/or directed away from the woodland.</p> <p>Where possible, to reduce the impact of artificial lighting on wildlife, measures will be incorporated across the site using best practice principles (BCT and Institute of Lighting Professionals, 2018). Those measures include (but are not limited to) using warm white spectrum lights (<2700Kelvin), low-level downward directional luminaires and the use of LED bulbs.</p> <p>As detailed before, the enhancement of the existing woodland will provide further foraging and commuting opportunities for bats on the site.</p>
Bats (roosting)	<p>No roosting bats were found during the emergence surveys on Building B1.</p> <p>No significant impacts are anticipated because of development.</p> <p>Enhancement measures for roosting bats in the form of two bat boxes, one to be placed on the building and one on a suitable mature tree is to be provided. This will provide further roosting opportunities for crevice dwelling bats such as common pipistrelle.</p>
Badger	<p>Due to the absence of badgers no significant impacts are anticipated because of development.</p> <p>The enhancement of the existing woodland will provide further foraging and nesting opportunities for birds on the site.</p>
Birds	<p>When considering species of bird which would nest within and adjacent to the site, the extent and type</p>

Ecological Feature	Rationale for Scoping Out
	<p>of habitats currently present and the context of the habitats available in the wider locale, the bird assemblage using site is likely to be limited to common species or low numbers of notable species only and of insufficient size or diversity to be of significant ecological value.</p> <p>No significant impacts are anticipated because of development.</p> <p>The development could include compensation for any habitat loss and enhancement measures for birds. This can include the provision two bird boxes, one on the building and one on a mature tree. Proposed designs include the 1B Nest Box or 1SP Schwegler Sparrow Terrace. These designs target species highlighted in local objectives such as the LBAP. Designs to be confirmed between ecologist and design team prior to scheme fix.</p> <p>As detailed before, the enhancement of the existing woodland will provide further foraging and nesting opportunities for birds on the site.</p>
Dormice	<p>The extent and current condition of the woodland is such that whilst it is possible that dormice use the woodland it would be in extremely low densities, if at all (Bright & MacPherson, 2002). No significant effects are anticipated from the development.</p> <p>The enhancement of the existing woodland will provide further foraging, commuting, hibernating and nesting opportunities for dormice on the site.</p>
Hedgehog	<p>Any population(s) present on site is likely to be of insufficient size or diversity to be of significant ecological value and no significant impacts are anticipated because of development.</p> <p>The enhancement of the existing woodland will provide further foraging, commuting hibernating and nesting opportunities for hedgehog on the site.</p>
Reptiles	<p>Any population(s) present on site is likely to be of insufficient size to be of significant ecological value to the local area and no significant effects are anticipated from the development.</p> <p>The enhancement of the existing woodland will provide further foraging, commuting and hibernating opportunities for reptiles on the site.</p>
Terrestrial invertebrates	<p>The enhancement of the existing woodland will provide further foraging, commuting and hibernating opportunities for reptiles on the site.</p>

6.3. As detailed above, whilst the ecological features in Table 2 have been scoped out, precautions are still required (Table 4).

Table 4, "Legal and best practice obligations"

Ecological Feature	Legal Obligation / Best Practice
Badgers	A walkover of the site should be undertaken prior to the commencement of site clearance activities to ensure no badgers have dug a sett on site or within 30m of the site. Should any badger setts be found, a licence from Natural England development licence to disturb the badger sett maybe required.
Birds (nesting)	Removal of vegetation (including grassland) outside nesting bird season. If this is not possible, a pre-commencement check should be undertaken. In an agreed method statement/CEcMP
Dormice	Sensitive vegetation clearance in suitable habitat under an agreed method statement as detailed in an agreed method statement/CEcMP.
Hedgehogs	Sensitive vegetation clearance in suitable habitat as detailed in an agreed method statement/CEcMP
Birds (nesting)	Removal of vegetation outside nesting bird season. If this is not possible, a pre-commencement check should be undertaken. Details to be set out in an agreed method statement/CEcMP

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APPENDIX 1: PROPOSED DEVELOPMENT



APPENDIX 2: BAT SURVEYOR LOCATIONS



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	<p>SCALE NTS PROJECT NO eg211198.02</p>	<p>DATE 16/09/2022 APPROVED SR</p>



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