



Preliminary Ecological Appraisal

Prepared for: Jasmine Croucher

Land Parcel to north-east of Greenhatch Farm
Cowley
Cheltenham
Gloucestershire
GL53 9NJ

January 2024

Cotswold Environmental Ltd

Registered Office Address: Wateredge, Fostons Ash, The Camp, Stroud, Gloucestershire GL6 7ER

T: 07557539979

E: info@cotswoldenvironmental.co.uk

W: www.cotswoldenvironmental.co.uk

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Methods used to prepare this report, including those carried out in the field followed The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

Report Author:	Jason Skinner (NE Class 2 Bat Survey licence 2020-50774-CLS-CLS)
Report Reviewers:	Tom Charlton MSc MRSB (NE Class 2 Bat licence number 2018-34622-CLS-CLS, Class 1 GCN licence number 2020-47806-CLS-CLS, NE Barn Owl licence number CL29/00581)
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1 INTRODUCTION

- 1.1 This report provides the results of a Preliminary Ecological Appraisal undertaken on a parcel of land located to the north-east of Greenhatch Farm, Cowley, Cheltenham, Gloucestershire GL53 9NJ (central Ordnance Survey (OS) Reference SO 95622 14795).
- 1.2 The proposals are described as the conversion of the existing stable block into a dwelling. In due course, a planning application will be submitted to Cotswold District Council.
- 1.3 The findings included in this report are based on a survey undertaken during January 2024 by Cotswold Environmental Ltd. The purpose of the survey was to undertake an appraisal of the site for its potential ecological value to notable and protected wildlife, and to look for evidence of such species. The survey results provide information to determine the likely ecological impact the proposed development will have on wildlife species, and to inform the level of further survey effort and mitigation required to comply with relevant nature conservation policies and legislation. The evaluation and findings in this report can be used by Cotswold District Council in their view of a planning application. Survey results detailed within this report should be considered valid for a period of 12-18 months from the survey date (subject to consultation with the Local Planning Authority and/or Natural England).
- 1.4 The National Planning Policy Framework (NPPF) (July 2021) sets out the government planning policies for England and how they should be applied. Chapter 15: Conserving and Enhancing the Natural Environment, is of particular relevance to this report as it relates to ecology and biodiversity¹. The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.
- 1.5 The site is located at the western edge of Cowley, approximately 7.5 km south of Cheltenham town centre. The site location is shown in Fig. 1.
- 1.6 All survey and assessment work was completed in accordance with official assessment guidelines² and largely followed that recommended by the Chartered Institute for Ecology and Environmental Management (CIEEM)³ and follows the British Standard Code of Practice⁴.

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf

² Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th edn. Bat Conservation Trust, London.

³ CIEEM (2017) Guidelines for Ecological Report Writing. CIEEM, Winchester.

⁴ British Standards Institution (2013) BS 42020:2013. Biodiversity – Code of practice for planning and development. British Standards Institution, London.

Survey Objectives

- To determine suitability for protected species
- Ascertain evidence of protected species
- Determine potential ecological impacts the proposed development will have on protected species.
- Inform the level of further survey effort that is required.

2 METHODOLOGY

Desk Study

- 2.1 Using freely available resources such as the online MAGIC database, a desk study was undertaken to acquire data in relation to local habitats and Sites of Special Scientific Interest (SSSIs).

Field Study

- 2.2 Ecological consultant Jason Skinner carried out a field visit on Wednesday 3rd January 2024.
- 2.3 The field visit involved a walkover using visual encounter survey techniques. The dominant vegetation structure was assessed, allowing habitats on site to be valued for their ecological importance to protected wildlife. Binoculars were also used to scan for features likely to support protected species. All protected species were considered during the assessment and all wildlife species were recorded. The work was completed largely following methodologies set out by the Chartered Institute for Ecology and Environmental Management (CIEEM) and British Standard Code of Practice.

Species

- 2.4 All protected species were considered during the survey. Only those considered likely to utilise the site are mentioned in this report.

Bats

- 2.5 Survey effort was completed in line with official assessment guidelines⁵ and largely followed that recommended by the Chartered Institute for Ecology and Environmental Management (CIEEM)⁶ and British Standard Code of Practice⁷. The assessment followed the standard methodology. The site was searched using visual encounter survey techniques. Potential bat movement corridors and movement barriers were assessed and noted. During the site visit, where possible, all areas of the building were

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th edn. Bat Conservation Trust, London.⁵

⁶ CIEEM (2017) Guidelines for Ecological Report Writing. CIEEM, Winchester.

⁷ British Standards Institution (2013) BS 42020:2013. Biodiversity – Code of practice for planning and development. British Standards Institution, London.

internally and externally examined for evidence of bats. The building survey included an internal and external assessment using a powerful torch and endoscope where required.

- 2.6 Internally, the building was assessed using a powerful torch beam to scan the walls and flat surfaces for droppings and other signs of bat activity. Feeding remains such as moth and butterfly wing concentrations were also surveyed for. All holes and crevices considered by the surveyor as likely to be used as a bat roost were examined to ascertain presence or absence of bats.
- 2.7 Externally, visual ground inspections of all elevations were undertaken using binoculars and a telephoto lens where required. Photographs were taken to capture likely features of ecological value to bats and birds i.e. missing tiles, damaged or missing mortar, exposed gable ends, gaps within soffit board, rotten timber and other potential entry points. Other external aspects of the building were surveyed, including windows, windowsills, external doors and the ground within close proximity of the structure was thoroughly inspected for bat droppings and feeding remains.

Table 1: Guidelines summary for assessing potential bat roost suitability

Suitability	Description of building, tree or structure
Negligible	Negligible habitat features on site likely to be used by roosting bats
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, potential roost sites not suitable for larger numbers or regular use (i.e. maternity or hibernation).
Moderate	A structure or tree with one or more potential roost sites that could be used by bats, 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.
Confirmed roost	Evidence of bats or use by bats found.

Badger

- 2.8 All habitats within the site boundary were inspected for badger *Meles meles* activity. Whilst on site, the search included evidence of:
- Scratching posts
 - Faeces
 - Latrines
 - Guard-hairs
 - Paw prints
 - Trackways

Dormouse

- 2.9 Hedgerows, scrub and treelines within and bordering the surveyed site were assessed for their suitability to support breeding populations of hazel dormice *Muscardinus avellanarius*, as well as suitability to provide connectivity to nearby suitable breeding habitats.

Nesting Birds

- 2.10 The survey also included an internal and external inspection of the surveyed buildings for evidence of common nesting birds as well as notable and protected species. Inside the buildings, artificial light was used to search for birds, dead birds, dead chicks, nesting material and eggs.
- 2.11 All accessible elements of the surveyed buildings containing nesting potential were checked to see if the development would have any adverse effects on nesting birds. The active nests of all wild birds are protected under the Wildlife & Countryside Act 1981 (as amended). An active nest is one that is being built, containing eggs or chicks, or on which fledged chicks are still dependent. Birds within Schedule 1, such as barn owl *Tyto alba*, are also protected from disturbance during the nesting period.
- 2.12 The presence of notable and protected bird species and any signs indicative of their past and present use was taken into consideration during the inspection of the buildings. Likely perches and nesting locations were checked, and all ledges and cavities were examined for nesting debris where accessible.

Reptiles and Amphibians

- 2.13 Habitats were assessed for their potential to support reptiles and amphibians. Waterbodies typical of those utilised for breeding and foraging activity, and terrestrial refugia suited to sheltering and basking such as waste heaps and plastic/metal/timber sheeting were noted if present (see limitations). In addition, any dense vegetation including tall ruderal and scrub that is connected to hedgerows and linear tree features was inspected during the assessment.

Limitations

- 2.14 The survey was conducted outside the recognised optimal season for plant identification. Grasses and wildflower develop at varying periods during the year, making identification of some plant species present on site difficult. Subsequently, not all plant species present onsite were recorded, though in relation to assessing habitat types and plant species present, this is not considered significant.
- 2.15 The absence of species does not preclude its presence. Wildlife can be cryptic, and some species are known to be transient and occupy new habitats on a regular basis.
- 2.16 Dense bramble scrub located near the northern boundary of the site restricted thorough assessment for protected species and badger evidence, such as sett entrances, scratch posts and latrines could be obscured.

- 2.17 Bat droppings deposited in or around the exterior degrade quickly due to weather. The presence of bats or their roost must not be disregarded in the absence of droppings.
- 2.18 Many bat species in the UK are crevice-dwelling bats and as such, are difficult to find during PRAs.
- 2.19 For Health & Safety purposes ladders were not used to gain close views of the external roof structure. All external aspects of the building were assessed from ground level.
- 2.20 Local biological records search results were not obtained.
- 2.21 No further limitations are associated with the survey.

3 RESULTS

Desk Study

Designated sites

- 3.1 The site lies within the Cotswolds Area of Outstanding Natural Beauty (AONB) and according to the MAGIC database, Bushley Muzzard, Brimpsfield Special Site of Scientific Interest (SSSI), a 1.3 hectare site of biological interest comprised of lowland neutral grassland, exists 1.8 km to the south-west of the site. No further statutory or non-statutory designated sites exist within a 2km radius (see limitations).

Granted European Protected Species Licences (EPSL) within a 2km radius

- 3.2 According to the Magic website, one EPS licence was granted for common pipistrelle *Pipistrellus pipistrellus* and lesser horseshoe *Rhinolophus hipposideros* in 2020 at a location 1 km to the south-west. No EPS licenses for other protected species exist within the same radius and no GCN Class Survey Licence returns or positive Pond Surveys (2017-2019) for GCN were identified.

Surrounding Habitats

- 3.3 The surveyed parcel of land is located in a rural setting, surrounded by farmland which is comprised of pastoral fields bordered by hedgerows with linear groups of conifer plantation. Further afield, several blocks of Deciduous Woodland (Priority Habitat) exist within a 2 km radius, the closest located 180 metres to the south of the site and two areas of Ancient and Semi-Natural and Ancient Replanted Woodland (Ancient Woodland Inventory). Further notable habitats include areas of Lowland Fen and Purple Moor Grass and Rush Pasture (Priority Habitat) located 1.8 km to the south-west and three parcels of Lowland Calcareous Grassland, the closest located 730 metres to the north.

Local waterbodies

- 3.4 No ponds were identified within a 500 m radius of the site boundary through use of the MAGIC website.

Field Survey

- 3.5 Weather conditions during the daytime assessment are shown in the below table. Temperatures were recorded onsite using an Elitech RC-51 Temperature Logger.

Table 2: Weather conditions during Preliminary Ecological Appraisal

Date	Start	Finish	Temp °C	Wind	Cloud %	Rain	Notes
3/01/2024	10:30	11:30	9	Calm	46	Dry	N/A

Onsite Habitats

- 3.6 The survey area comprises an actively grazed paddock dominated by grassland with scrub and tall ruderal vegetation present at the margins. Two structures exist at the southern boundary, the larger stable block surrounded by hardstanding and the entire paddock is surrounded by a timber post and wire fence. No standing waterbodies exist within the survey boundary or within the site grounds and no ponds are to be destroyed or impacted by the proposed works. Furthermore, no priority habitats exist within or immediately outside the survey area.
- 3.7 The individual habitat types recorded at the site are described under the sub-headings below, with the location and extent of each illustrated in the Habitat Map in Figure 2.

Buildings

- 3.8 The surveyed structures comprise a timber framed stable block with a pitched roof covered in box profile galvanised steel sheets. The elevations are wood clad with five stable entrances and a overhanging roof at the north facing elevation. The roof features guttering at the roof edges and no loft void or enclosed roof space is present. In addition, a small field shelter is located to the west of the stable block. This structure is constructed from shiplap wooden cladding with a pitched roof covered in corrugated bitumen sheets and an open entrance to the north facing elevation.

Hardstanding

- 3.9 A concrete hardstanding surrounds the stable block, located along the southern boundary of the survey area.

Semi-improved grassland

- 3.10 Habitats onsite are dominated by poor semi-improved grassland. The short sward was actively grazed and dominated by grasses such as perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus* and Red fescue *Festuca rubra* with a limited amount of forbs such as dandelion *Taraxacum officinalis* agg, creeping buttercup *Ranunculus repens* and white clover *Trifolium repens*

Tall ruderal

- 3.11 Stands of common nettle *Urtica dioica*, creeping thistle *Cirsium arvense* and broad-leaved dock *Rumex obtusifolius* were present along the southern boundary of the survey area.

Scrub

- 3.12 Stands of common hawthorn *Crataegus monogyna* and semi-mature sycamore *Acer pseudoplatanus* grow along the roadside southern boundary and western boundary of the site, outside of the survey area. In addition, dense bramble *Rubus fruticosus* scrub with intermittent hawthorn and elder *Sambucus nigra* shrubs dominates the northern margins of the survey area.

Notable flora

- 3.13 No notable plant species and no Schedule 8 or 9 plant species of the Wildlife and Countryside Act 1981 (as amended) were identified on site. An overview of plant species is shown in Table 4: Plant Species Recorded Onsite.

Species

Bats

- 3.14 A Preliminary Roost Assessment (PRA) of the stable block and field shelter was undertaken. Externally, the north facing elevations are open although no gaps or crevices were noted in the wooden cladding that would offer value to crevice dwelling species of bats such as pipistrelle *Pipistrellus sp.* and small Myotis species that utilise the external fabric of buildings for roosting.
- 3.15 Both of the structures are partially open to the elements, exposed to draughts and well illuminated from the open entrances. The roofs are not underlined and there is no cavity within the walls. Although timber rafters to the roofs are exposed, offering value as a night roost to perch feeding/resting species of bat, no evidence such as droppings or feeding remains was discovered on the ground or on stored materials located below these features.
- 3.16 No bats, droppings, or further evidence of bat presence was discovered during the building assessment.
- 3.17 Nearby trees, such as the common hawthorn and semi-mature sycamore that grow outside the southern boundary, were assessed from ground level for their potential to support roosting bats and all were found to hold negligible bat roosting potential due to the lack of suitable potential roosting features (PRFs). Tree images are shown within the report Appendices: Site Images.
- 3.18 Although no suitable roosting habitat was discovered within the survey area, the onsite shrubs and trees represent suitable foraging and commuting habitat for bats.

Badger

- 3.19 Although habitats within the survey boundary will offer value to commuting and foraging for badgers, no badger setts or further evidence of badger activity was discovered onsite or within a 30 m radius of the survey boundary where accessible (see limitations).

Dormouse

- 3.20 The immediate surrounding environment is poorly wooded and the site itself does not support trees or hedgerows. However, the extensive bramble scrub found within the survey area may offer value as a nesting resource when the vegetation is at its densest and foraging opportunities when the bramble is fruiting, although the scrub is lacking in species diversity and poorly connected to surrounding hedgerows. No evidence of dormouse activity was discovered during the site assessment.

European Hedgehog

- 3.21 No evidence of hedgehog was discovered during the site visit, though the scrub present within the survey area would offer value for sheltering, commuting and foraging activity.

Nesting birds

- 3.22 No notable bird species were recorded on site and no bird nests were identified within the survey boundary, although bramble scrub will provide nesting opportunities to small passerine species. Habitats located outside the survey area, such as the row of scrub located along the roadside boundary will offer nesting opportunities for a variety of local bird species, however, it is understood this feature will not be directly impacted by the proposals.
- 3.23 No evidence of barn owl, such as splash marks/droppings and pellets were discovered within the stable block or field shelter and both structures were considered to be largely unsuitable for the species due to regular disturbance and a lack of suitable perches and ledges.

Reptiles and Amphibians

- 3.24 No evidence of reptiles or amphibians was found during the site assessment and no ponds are present within the survey boundary as defined in Figure 2, therefore lacking suitable onsite breeding habitat for amphibians including GCN. In addition, no ponds were identified within a 500 m radius of the site. Although the scrub located at the northern extent of the site would offer places of refuge for sheltering reptiles and amphibians, terrestrial habitats within the zone of impact are largely dominated by short-grazed grassland which is heavily poached in areas and considered to hold negligible value.

4 DISCUSSION & RECOMMENDATIONS

Proposals

- 4.1 The proposal will include the conversion of the existing stable block and with limited clearance of surrounding vegetation area in order to make way for associated landscaping. The dwelling will be accessed via the existing entrance located at the eastern boundary. The purpose of the survey was to undertake an appraisal of the site for its potential ecological value to notable and protected wildlife, and to look for evidence of such species. The survey results provide information to determine the likely ecological impact the proposed development will have on protected species, and to inform the level of further survey effort and mitigation required to comply with relevant nature conservation policies and legislation.

Habitats

- 4.2 As part of the desk study, online resource MAGIC was checked for statutory and non-statutory designated sites, with a single site; Bushley Muzzard, Brimpsfield SSSI, found to exist 1.8 km from the survey area. The development proposals are small-scale and therefore, no impacts to the designated site or habitats beyond the site boundaries are anticipated provided nocturnal lighting recommendations included in this report are adhered to.
- 4.3 Onsite, habitats within the survey boundary are dominated by the existing buildings and short grazed grassland, with scrub and tall ruderal vegetation that may serve as cover for sheltering wildlife such as small mammals, reptiles and amphibians should they gain access to the site. The site is not well connected to surrounding ecological features, although surrounding blocks of woodland and hedgerows within the surrounding farmland are likely to support wildlife including bat populations of various species. Onsite semi-mature trees and shrubs, present outside the survey area, are to be retained and the conversion of the stable block is not considered likely to significantly impact local wildlife populations.
- 4.4 Measures should be taken to suitably protect the trees and shrubs that lie alongside the southern boundary, immediately behind the buildings at all times both during and after construction and use of nocturnal lighting should be carefully considered to ensure no indirect impacts occur (see point 4.8) It is recommended that a buffer zone of 2 m should be placed from the spread of the trees to ensure sufficient root protection. The buffer zone must be clearly marked such as through use of timber post and red/white barrier tape and will be maintained throughout the development works. No vehicles should enter this area and it must not be utilised for storage of materials.

Species

Bats

- 4.5 During the inspection of the buildings, both the stable block and the field shelter were found to be lacking in external gaps and crevices that could be exploited by bats and no evidence of bats was found during the internal assessment, with significant light ingress causing well-luminated conditions unsuitable for day roosting. No bats, droppings, feeding remains or further evidence of bat activity was discovered during the assessment of the structures. Additionally, the stables see regular disturbance from livery of horses and associated storage. Subsequently, following the daytime assessment, both structures were deemed as holding negligible potential to support roosting bats.
- 4.6 **No further survey effort for bats is recommended.** However, all workers should be vigilant and mindful of bats during works, taking extra care at all times during development. In the unlikely event that bats are discovered, work should cease immediately and Cotswold Environmental should be contacted on: 07557539979. It should be noted that further works would not be able to lawfully proceed without confirmation from Natural England, and bats should not be handled at any time for legal reasons. If bats are discovered during works, Natural England will potentially restrict development until further surveys have been completed and a full mitigation and compensation strategy has been designed. It is likely that, if bats are discovered, a European Protected Species Licence (EPSL) will be required from Natural England.
- 4.7 No suitable roosting habitat was identified during the assessment of the nearby trees and as these trees are to be retained, no further surveys are recommended in relation to bats. However, as linear features, such as rows of scrub, are important for commuting and foraging activity in bats, use of nocturnal lighting as part of the development works must be carefully considered, with a view of retaining darkened areas for bats (point 4:8 Nocturnal Lighting Scheme).

Nocturnal Lighting Measures

- 4.8 The insensitive use of external lighting within the proposed development could have a negative impact upon bats using the site for foraging and commuting activity.
- 4.9 As suitable bat habitat occurs within the nearby surrounding environment, a low-level lighting scheme should be implemented during and after construction to avoid indirect disturbance to bats and other nocturnal animal species that may exploit local habitats. Measures must be taken to ensure nocturnal animals are safeguarded from inappropriate use of light and noise throughout the hours of night during the construction period, as well as to protect important commuting corridors for bats. Any external lighting installed as part of the development must be used in accordance with Guidance Note 08/23: Bats and Artificial Lighting⁸.

⁸ <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

4.10 Sensitive lighting strategy measures during the construction period are as follows:

- Works must not be carried out after dusk and must not commence until after dawn.
- Generators and machinery that emit significant noise levels must not be left to run after dusk.
- LED lighting sources must be used, which generally have a narrower and more directional beam.
- Light spill must be controlled and if lighting is required at night, hooded shields must be fitted to prevent spill onto nearby habitats that are likely to support wildlife, including nearby trees and hedgerows.
- Lighting must not be directed towards any bat or bird compensation features.

4.11 In addition to the above, when selecting appropriate external lighting, the following specifications should be taken into consideration:

- Any external lighting incorporated into the proposed development should be LED luminaires due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats⁹.
- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used¹⁰

Badger

4.12 Whilst no evidence of badgers or sett building was found within the survey boundary or in adjacent habitats within 30 m of the zone of impact, it is possible that the site is used for commuting purposes, and individuals may occasionally access the survey area to forage for earthworms and other prey.

4.13 Taking the above into consideration, no direct impacts to badger setts are anticipated as part of the proposed works. Due to the suitability of the site and surrounding habitats for commuting and foraging and the presence of dense bramble scrub which may obscure evidence of badger presence, it is recommended that a Precautionary Working Method Statement (PWMS) detailing Reasonable Avoidance Measures (RAMs) be prepared in order to reduce risks to badger at all times during the development works.

Dormouse

4.14 No evidence of dormouse was discovered onsite, although the wider environment does feature blocks of ancient woodland, that would be of sufficient size to support dormouse populations. Onsite, the bramble scrub that is found within the survey boundary may offer foraging opportunities for dormouse should they occur within the local area; however, no suitable habitat links exist and the site is poorly

⁹ Stone, E.L. (2013) *Bats and lighting: Overview of current evidence and mitigation*

¹⁰ Bat Conservation Trust & Institute of Lighting Professionals (ILP) 2018. *Guidance Note 8: Bats and artificial lighting in the UK*. Bats and the Built Environment Series.

connected to features within the wider environment. Taking the above into consideration, no further survey effort for dormouse is recommended.

European Hedgehog

- 4.15 No evidence of hedgehog was discovered onsite. However, it is recommended that the developer should ensure provisions are made that would allow hedgehog to continually access the site for commuting and foraging purposes.
- 4.16 Due to the suitability of the site and surrounding habitats for commuting and foraging, it is recommended that a PWMS detailing RAMs be prepared in order to reduce risks to hedgehog at all times throughout the development works.

Reptiles and Amphibians

- 4.17 No evidence of reptiles or amphibians was discovered during the assessment and no ponds exist within the survey boundary or within a 500 m radius of the site, although the onsite scrub and tall ruderal vegetation would provide suitable areas of refuge or cover that could be used by reptiles or amphibians during the terrestrial phase of their lifecycle. However, short-grazed and heavily poached semi-improved grassland dominating the site is considered to offer low/negligible value to herpetofauna. It is understood that vegetation clearance required as part of the proposed works is limited to small blocks of tall ruderal growth located at the site's southern extent, surrounding the existing stable block and associated hardstanding; extensive blocks of scrub located to the north-eastern extent are to be retained.
- 4.18 Taking the above into consideration, no further survey effort in relation to reptiles and amphibians is recommended, though a PWMS detailing RAMs be prepared in order to reduce risks to reptiles, particularly during any removal of tall ruderal required as part of the proposed development when sheltering herpetofauna could potentially be harmed, as well as to protect and buffer any retained vegetation.

Nesting birds

- 4.19 No evidence of nesting was discovered during the site assessment; however, the nearby trees, shrubs, and dense scrub would undoubtedly offer value to a variety of local bird species. As scrub clearance is required as part of the proposals, this must only be undertaken following assessment by an ecologist to confirm the absence of nesting activity when undertaken between February-August.
- 4.20 Irrespective of the time of year, if any nesting birds are discovered on site, an area around the nest site will be protected from disturbance with a suitable fence (not HERAs fencing) that would include an appropriate buffer zone, as determined by the suitably qualified supervising ecologist. Work will then be avoided in this area until the nest is no longer in use. Buffer zones in this respect will normally be 5m in diameter, and will be delineated by canes, cordon tape and signage.

Biodiversity Enhancement

4.21 The NPPF (2021) outlines obligations of Local Planning Authorities to promote Biodiversity Net Gain where possible. There are various options available with regards to biodiversity enhancement on site:

Bats

4.22 An option to increase biodiversity relating to bats on site would be to affix one or more bat boxes to mature trees within the site boundary, ideally using either Schwegler 1FF boxes (or similar) or Schwegler 2F boxes (or similar). Alternatively, they may also be pole-mounted in an appropriate position. Bat boxes should be positioned no lower than 4m above ground level and they should not face in a northerly direction.

Nesting Birds

4.23 Ways to further enhance the site value with regards to bird nesting would be to fit nest boxes to existing trees. Options include close-hole boxes and open-fronted boxes which would then provide opportunity for a variety of bird species. We recommended that one external bird nest box (Schwegler 1B or similar) is installed onsite. For maximum success, our recommendations are as follows:

- Bird boxes must be positioned away from the immediate glamping area where disturbance would be more likely.
- Following British Ornithology Trust guidelines, bird boxes must be positioned no lower than 2m from ground level and preferably above 3 m to prevent possible predation.
- The proposed placement of the bird nest boxes must allow for a clear flight path, without obstruction to the nest box entrance. It is recommended that they are installed in a south-westerly facing direction to offer protection from prevailing winds and rain and should ideally be slightly tilted in a downwards position to offer further weather protection.

Hedgehog

4.24 The surrounding and onsite habitats are likely to provide shelter, foraging and commuting opportunities for hedgehog. With hedgehog numbers declining in recent years, biodiversity management plans are critical to aid with their conservation status. Given that foraging hedgehogs can travel a reasonable distance each night in a bid to successfully forage, it is important that provisions are made in each boundary line (if fenced or gated) with a view to allow them to successfully commute. Gaps in fences and under gates should be at least 130mm x 130mm.

APPENDIX A: PLANTS RECORDED¹¹

Table 3: Plant list recorded on site

Scientific Name	Common Name
<i>Lolium perenne</i>	Perennial ryegrass
<i>Holcus lanata</i>	Yorkshire fog
<i>Festuca rubra</i>	Red fescue
<i>Ranunculus repens</i>	Creeping buttercup
<i>Taraxacum sp.</i>	Dandelion
<i>Bellis perennis</i>	Daisy
<i>Trifolium repens</i>	White clover
<i>Achillea millefolium</i>	Common yarrow
<i>Galium aparine</i>	Cleavers
<i>Urtica dioica</i>	Stinging nettle
<i>Cirsium arvense</i>	Creeping Thistle
<i>Rumex obtusifolius</i>	Bitter dock
<i>Dipsacus fullonum</i>	Wild teasel
<i>Rubus fruticosus agg</i>	Bramble
<i>Rosa canina</i>	Dog rose
<i>Sambucus nigra</i>	Elder
<i>Crataegus monogyna</i>	Common hawthorn
<i>Acer pseudoplatanus</i>	Sycamore

¹¹ Plant names according to Rose F, O'Reilly C (2006) The Wild Flower Key, Revised Edition. Penguin Books, London.

APPENDIX B: LEGISLATION SUMMARY

Habitats Directive

Species listed in the Habitats Directive 1992 (transposed into UK law through the Conservation of Habitats and Species Regulations 2010 and subsequently 2017 as amended) for which it is illegal to deliberately capture, kill or disturb any individual, or deliberately damage or destroy a breeding site or resting site. In 2007 and 2009, the Habitats Regulations were amended to define illegal disturbance as that which would affect the ability of a significant group of animals of a European Protected Species to survive, breed or to rear or nurture their young, or to hibernate or migrate, or to affect the local distribution or abundance of the species.

Natural Environment and Rural Communities (NERC) Act 2006

The act to makes provision about bodies concerned with the natural environment and rural communities; to make provision in connection with wildlife, Sites of Special Scientific Interest, National Parks and the Broads; to amend the law relating to rights of way; to make provision as to the Inland Waterways Amenity Advisory Council; to provide for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes.

Countryside and Rights of Way (CRoW) Act 2000

The CRoW applies to England and Wales only, enforcing a statutory policy for biodiversity conservation. The UK Biodiversity Action Plan (BAP) provides the framework for fulfilling the UK's responsibilities towards the Convention on Biological Diversity. The CRoW Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.

The Conservation of Habitats & Species Regulations 2017 (the Habitat Regulations) (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations came into force on 30th November 2017 and extend to England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters). In Scotland, the Habitats Directive is transposed through a combination of the Habitats Regulations 2010 (in relation to reserved matters) and the and the Conservation (Natural Habitats &c.) Regulations 1994. The Conservation (Natural

Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) transpose the Habitats Directive in relation to Northern Ireland.

Bats

In England and Wales, bats and their roosts are protected under the Conservation of Species and Habitats Regulations 2017 (as amended) and the Wildlife & Countryside Act 1981 (as amended). Taken together, this legislation makes it an offence to:

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of the animals to survive, breed, or nurture their young or likely to significantly affect the local distribution or abundance of the species whether in a roost or not
- Damage or destroy the breeding or resting place of a bat
- Possess a bat (alive or dead) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost
- Sell (or offer for sale) or exchange bats (alive or dead) or parts of bats

A roost is defined as being 'any structure or place that is used for shelter or protection' and since bats regularly move roost site throughout the year, a roost retains such designation whether or not bats are present at the time.

Reptiles

All native British species of reptile (of which there are six) are listed in Schedule Five of the Wildlife and Countryside Act (1981) (as amended) and as such are protected from deliberate killing, injury or trade. Therefore, where development is permitted and there will be a significant change in land use, a reasonable effort must be undertaken to remove reptiles off site to avoid committing an offence. The same act makes the trading of native reptile species a criminal offence without an appropriate licence.

Great Crested Newts

Great crested newts and their habitats receive protection under The Conservation of Habitats and Species Regulations 2017 (as amended). This species is also afforded full protection under the Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under such legislation it is an offence to:

- Intentionally or recklessly kill, injure or capture a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly* damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly* disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.
- Damage or destroy a breeding site or resting place.

- Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

*Reckless offences were added by the Countryside and Rights of Way Act 2000, which applies only to England and Wales.

Badger

Badger is protected in Britain under the *Protection of Badgers Act 1992* and *Schedule 6 of the Wildlife and Countryside Act 1981* (as amended).

The legislation affords protection to Badgers and Badger setts and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

Dormouse

The dormouse has undergone substantial declines in recent years as a result of habitat loss, deterioration and fragmentation and is consequently protected as a 'European Protected Species' under the 2017 Conservation of Habitats and Species Regulations, which implements the EC Habitats Directive 92/43/EEC in the United Kingdom. In relation to European Protected Species (EPS), the 2017 Regulations make it an offence to:

- Deliberately capture, injure or kill any wild animal of a EPS;
- Deliberately disturb wild animals of any such species, in particular any disturbance which is likely to: (i) impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or to hibernate or migrate or (ii) affect significantly the local distribution or abundance of the species to which they belong;
- Damage or destroy a breeding site or resting place of such an animal; and/or
- To (a) be in possession of, or to control; (b) to transport any live or dead animal or any part of an animal; (c) to sell or exchange or (d) offer for sale or exchange any live or dead animal or part of an animal of an EPS.

In addition, Dormice are protected under the 1981 Wildlife and Countryside Act (as amended).

Dormice are listed on Schedule 5 of the Act and are subject to the provisions of Sections 9.4b and 9.4c, which make it an offence to:

- Intentionally or recklessly disturb a Dormouse while it is occupying a structure or place which it uses for shelter or protection; and/or
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a Dormouse.

Birds

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended).

Under this legislation it is an offence to:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

APPENDIX C: MAPS & SITE PLANS

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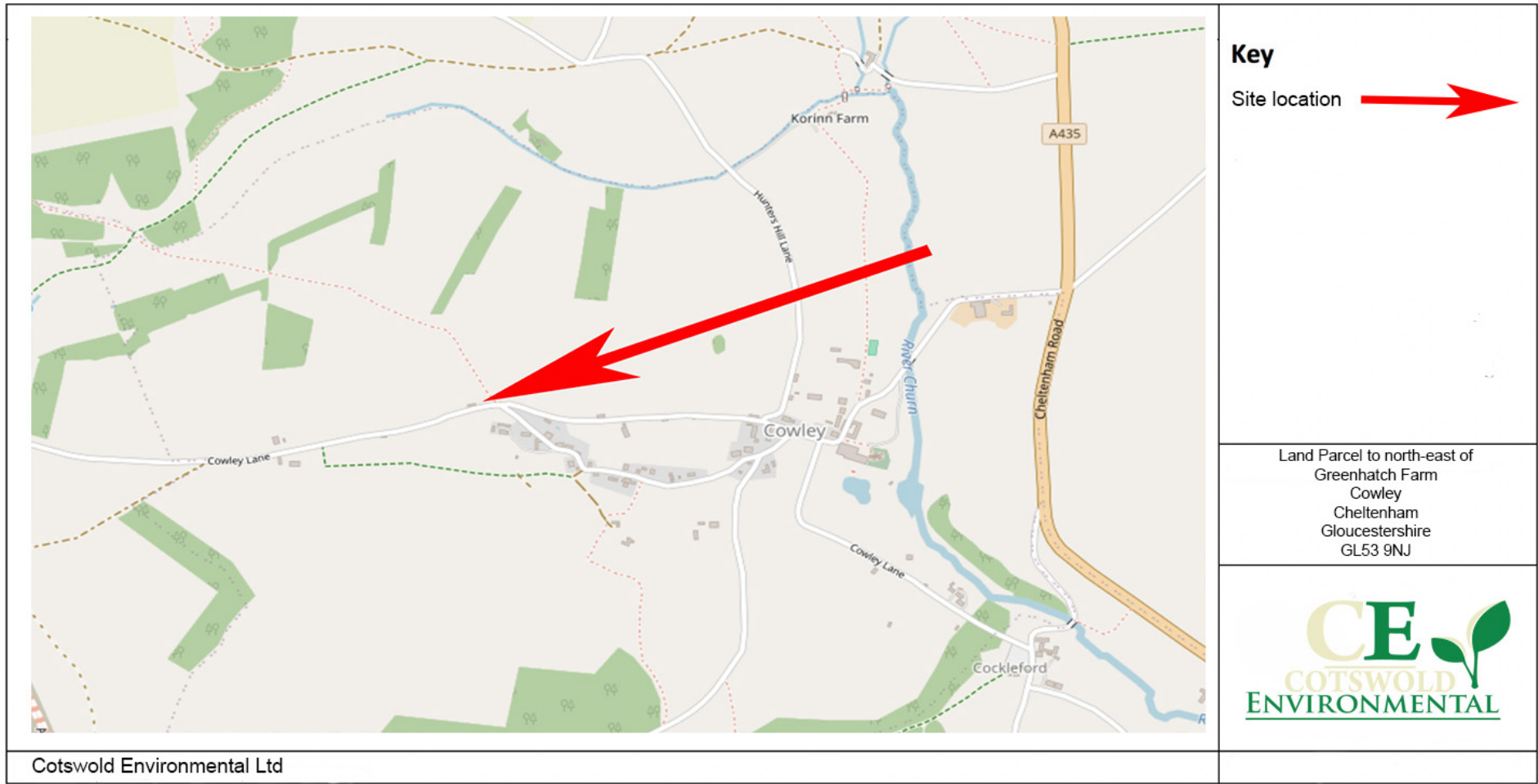


Figure 1: Location Map



Figure 2: Habitat Map

APPENDIX D: SITE IMAGES



Photo 1: Stable block and concrete hardstanding located near the southern boundary of the site



Photo 2: Stable block and hardstanding viewed from the west



Photo 3: One of the five open stable entrances to north facing elevation



Photo 4: Timber clad elevations to stable block with no gaps or crevices



Photo 5: Internal view of one of the five stables within the stable block



Photo 6: Interior of field shelter



Photo 7: Poaching to areas of grassland.



Photo 8: Area of tall ruderal vegetation growing near southern boundary



Photo 9: Dense bramble scrub with occasional hawthorn, elder to northern margins



Photo 10: Field shelter located to the west of the stable block