SOUTH COAST ECOLOGY

Client Name	Mr A Brazil
Site Name	Church Lane
Report Title	Preliminary Ecological Appraisal
Date of Report	16/07/2025
Version	FINAL V2
Author	Tristanna Boxall BSc (Hons) MCIEEM

Summary

South Coast Ecology Ltd were commissioned by Mr Brazil to undertake a Preliminary Ecological Appraisal (PEA) of land located along Church Lane, Barnham. This was to ascertain the baseline ecological conditions to assess the likely impacts in the absence of mitigation relating to the proposed change of use to four Gypsy/Traveller Plots. This assessment also provides appropriate recommendations to ensure proposals are in line with legislation and policy.

The PEA involved both a desk study and field survey. The site visit paid particular attention to the potential for roosting bats on site. It is considered the stables have negligible potential to support roosting bats and so it is unlikely roosting bats will be impacted by proposals.

This report provides the findings and recommendations to enhance the scheme for biodiversity.

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1.0 Introduction

1.1 Background

As defined by CIEEM a Preliminary Ecological Appraisal (PEA) is the process of assessing the ecological features present, or potentially present, within a site and the zone of influence of any proposal(s). It comprises a desk study and a walkover survey.

South Coast Ecology Ltd were commissioned by Mr Brazil to undertake a Preliminary Ecological Appraisal (PEA) of land located along Church Lane, Barnham to assess the likely impacts relating to the proposed change of use to 3no. Gypsy/Traveller Plots.

The information gained during the assessment process has been collated and presented within this report.

1.2 Aim

The aim of this PEA is to:

- identify the habitats on site and record species encountered,
- classify suitability for legally protected and/or notable species,
- identify likely ecological constraints associated with a project,
- identify any mitigation measures likely to be required,
- identify any additional surveys that may be required, and
- identify the opportunities to deliver ecological enhancement.

1.3 Objective

The overall objective of this report is to ensure proposals are in line with local and national policy and legislation (**Appendix I**), resulting in a net gain for biodiversity.

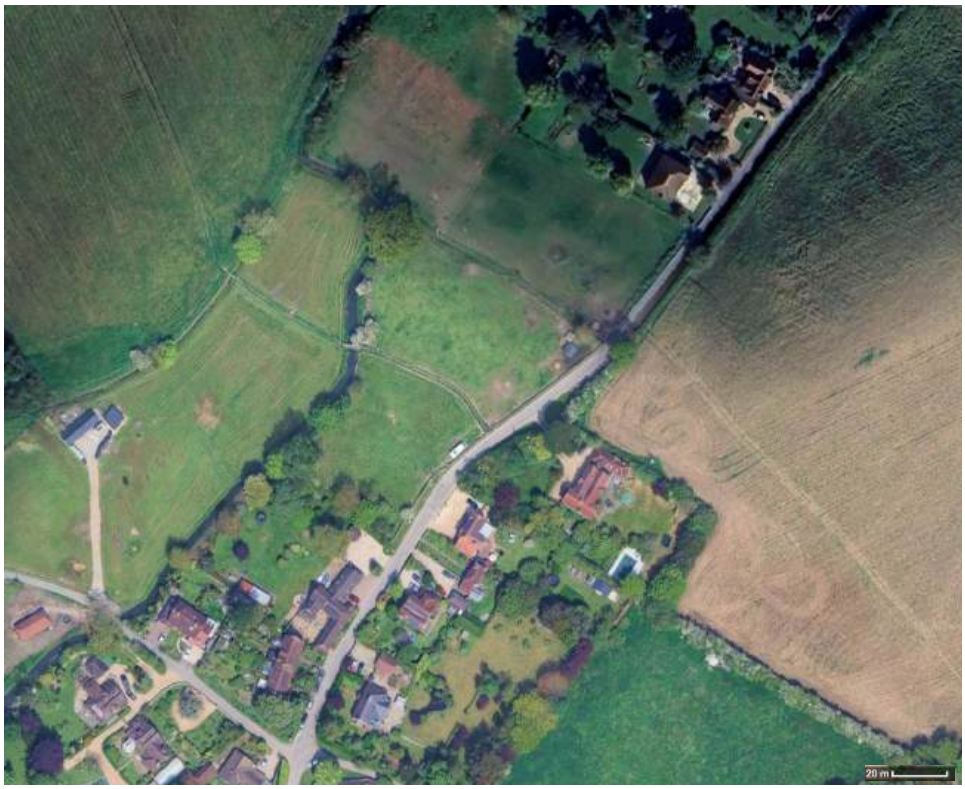
1.4 Report Lifespan

This report will remain valid for 18 months after the execution of the survey work. After this point an updating site visit will be required by a professional ecologist to ensure the findings and recommendations remain in line with the status of the site (CIEEM, 2019).

1.5 Site Description

The site is located along Church Lane in Barnham (grid reference SU 95757 03825) (**Figure 1**). The site is bound by pasture with Church Lane running along the southeastern boundary. Within close proximity there is low density residential housing and associated garden space with the wider area of a rural nature consisting of agricultural land, hedgerows and drainage network.

Figure 1. Location of site (GoogleMaps, 2025).



1.6 Proposals

The proposals involve change of use to 4no. Gypsy/Traveller Plots (**Figure 2**).

Figure 2. Proposals.

SITE PLAN 1:500

2.0 Methodology

The survey work was undertaken by Tristanna Boxall BSc (Hons) MCIEEM Senior Ecologist (Natural England license Class Level 1 for GCN and Dormice and Class Level 2 for bats) with 12 years experience.

2.1 Desk Study

2.1.1 Site Information

A search utilising the online planning portal of the relevant planning authority was undertaken to identify any local ecological issues that have been raised. In addition, web-based aerial photos and Ordnance Survey maps were utilized to gather initial information about the site and surrounding area, giving an indication of the type of habitats and species likely to be present.

2.1.2 Designated Site Information

A search for designated nature conservation sites was undertaken using online resources. The location of each designated site, distance from the redline boundary, connectivity to the project site and reason(s) for designation were recorded.

2.1.3 Species Records

A search for granted licenses within 2km of the site allows an assessment of the likelihood of such species being present on site and/or being impacted directly or indirectly by proposals.

2.1.4 Habitat Information

Existing information on the habitat types within the site boundary and the surrounding area was gained via the use of online resources.

A search for ponds within 500m was also undertaken.

2.2 Site Visit

This took place on 22nd April 2025. Weather conditions consisted of temperatures of 13°C, 50% cloud cover, minimal wind and no precipitation. The habitats present were recorded along with species encountered. UK Habitat Classification (UKHab) methodology was utilised. A thorough and systematic search for evidence of legally protected and notable species was undertaken whilst on site. The habitats were assessed as to their potential to support such species.

2.3 Preliminary Roost Assessment (Day Time Bat Walkover)

The purpose of this aspect of the survey was to observe, assess and record any habitats suitable for bats too roost, commute and forage. The survey methodology was in line with best practise guidelines (Collins, J. ed. 2023).

2.3.1 Assessment of Building to Support Roosting Bats
The survey consisted of a thorough search of the externals of the field shelter for features likely to support a roost or allow access into the internals. A high-powered torch and binoculars were used for this.

Access was also gained into the structure. A thorough and systematic search for evidence of bats (i.e. droppings, feeding remains, urine staining etc) took place.

The survey methodology was in line with best practise guidelines (Collins, J. ed. 2023).

2.4 Impact Assessment

2.4.1 Valuation
As part of this assessment Ecological receptors have been assigned importance in terms of biodiversity conservation value on a geographic scale. Value is assigned based on legal protection and national and local biodiversity policy:

- International and European
- National
- Regional
- County
- Local
- Site

2.4.2 Magnitude of Effect
The magnitude of effect represents the degree of change in an ecological receptor. These are either temporary or permanent, direct or indirect and adverse or beneficial.

2.4.3 Significance of Effect
This combines the above factors to determine the significance of effects. Impacts are categorised as Major, Moderate, Minor or Negligible.

2.5 Limitations
The survey represents the site at the time of survey. Lack of evidence of a particular species does not confirm absence. Similarly, species may take up residence and/or begin to utilize the site and/or area impact following the completion of the survey.

This survey does not constitute a full site assessment for invasive species, such as Japanese Knotweed (*Fallopia japonica*).

3.0 Results

3.1 Desk Study

3.1.1 Designated Site Information
No designated sites were recorded within 2km of the site.

3.1.2 Species Records
Only one EPS license return relating to Common Pipistrelle bats was identified within 2km of the site.

3.1.3 Habitat Information
No Priority Habitat was recorded on, or adjacent to, site.

3.1.4 Water Bodies
A pond was identified within 500m. This was located approximately 75m south of the site within a private garden.

A further pond was also noted to the south however despite falling within the search radius (232m) it a separated via three roads which are considered likely to act as dispersal barriers.

The drain which flows along the ownership boundary lies proximately 35m from the area of impact.

3.2 Site Visit
During the assessment no evidence of Badgers or other legally protected /notable species was identified on site.

Please see **Plan 1** for habitat map.

Modified grassland (g4) grazed (100) and mown (106)
The main habitat on site is modified grassland. A public right of way divides the site with the eastern most paddock (**Figure 3**) grazed by donkeys and the western paddock subject to mowing (**Figure 4**). Despite the differing management approaches the species composition was relatively similar with Timothy (Phleum pratense), Yorkshire Fog (Holcus lanatus), Perennial Rye-grass (Lolium perenne) dominant and Dock (Rumex Sp.) and Dandelion (Taraxacum agg.) abundant. Clover (Trifolium Sp.) and Creeping Buttercup (Ranunculus repens) were also frequent. Occasional Prickly Sow Thistle (Sonchus asper), Meadow Buttercup (Ranunculus acris), Daisy (Bellis perennis), Greater Plantain (Plantago major), Creeping Thistle (Cirsium arvense), Ragwort (Senecio jacobaea), Chickweed (Stellaria media) And Germander Speedwell (Veronica chamaedrys) were recorded along with rare

Bluebell (Hyacinthoides x massartiana) and Daffodil (Narcissus Sp.) however the average species per m^2 was consistently <5.

Figure 3. Grazed Paddock (April, 2025).

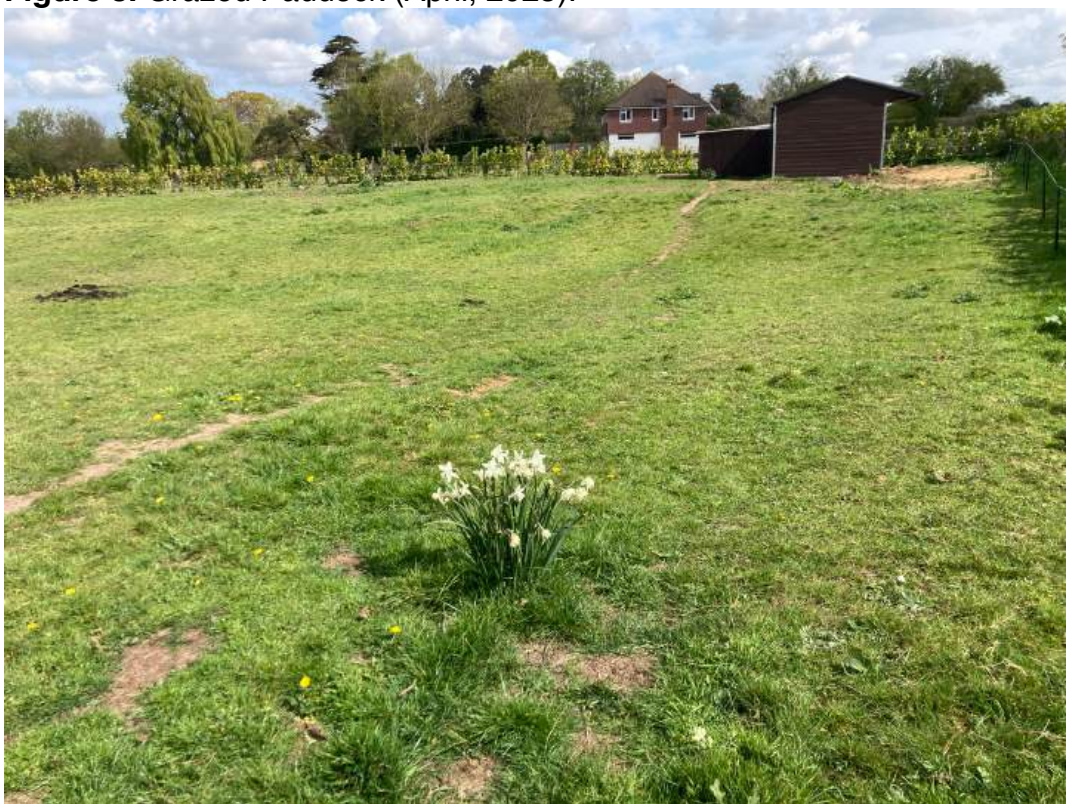
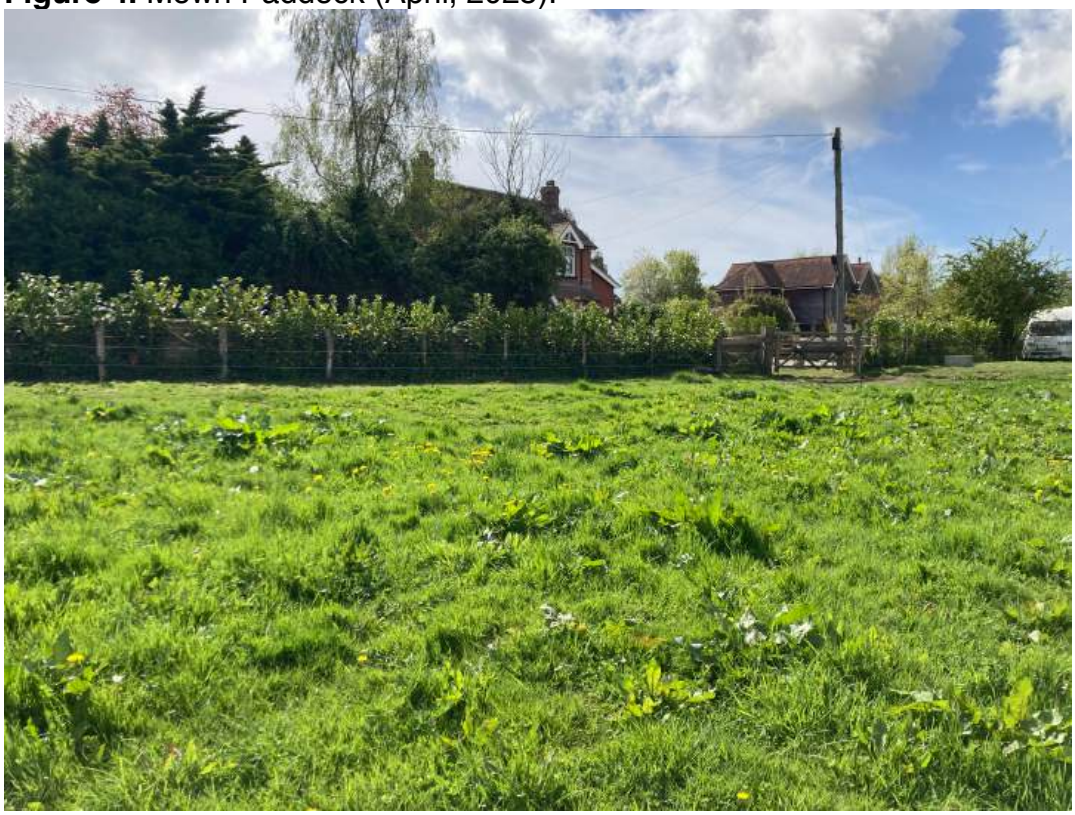


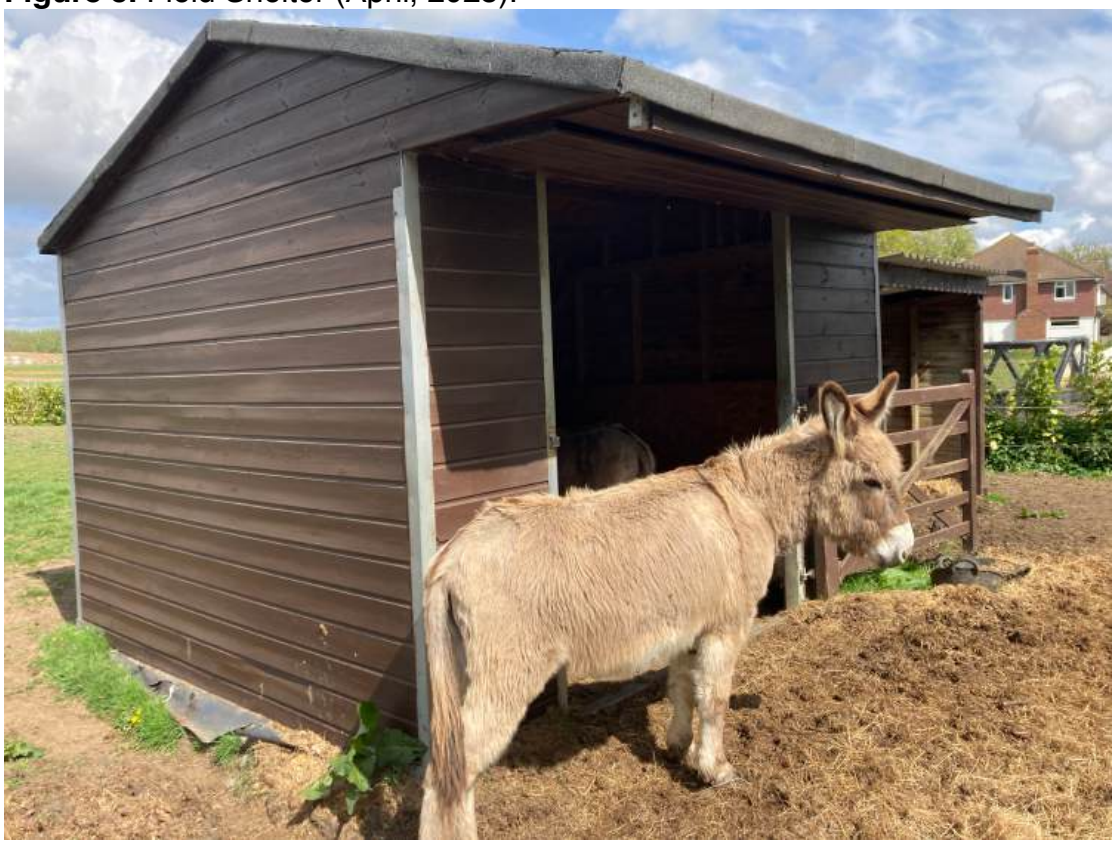
Figure 4. Mown Paddock (April, 2025).



Buildings (u1b5)

On site there are open fronted field shelters (**Figure 5**). These are of timber construction with single skin cladding with one roof covered in bitumen felt and the other in corrugated metal.

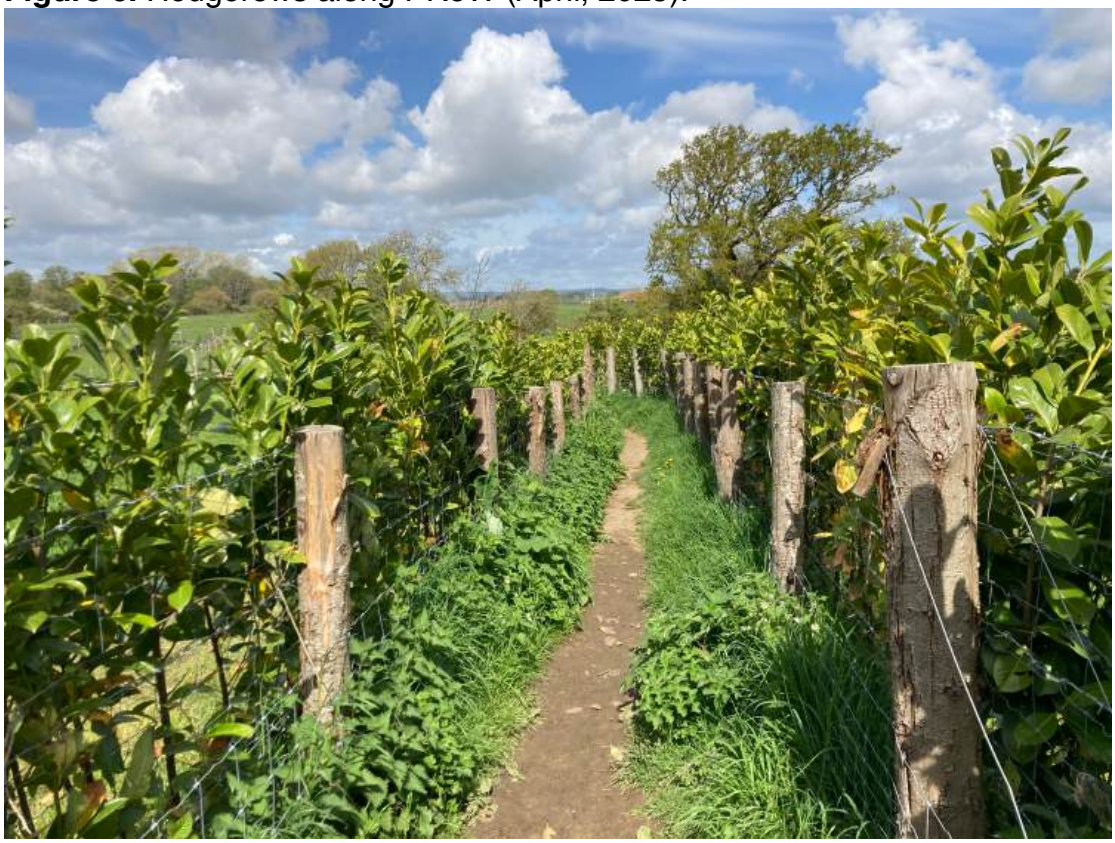
Figure 5. Field Shelter (April, 2025).



Non-native and Ornamental Hedgerow (h2b)

A Laurel (Prunus laurocerasus) hedgerow runs along Church Lane and east/west boundaries of both paddocks. Two parallel Laurel hedgerows then run along the PRoW (**Figure 6**). Within the understorey a similar assemblage of floral species was recorded with the addition of White Dead Nettle (Lamium album).

Figure 6. Hedgerows along PRoW (April, 2025).



3.3 Preliminary Roost Assessment (Day Time Bat Walkover)

The structures were considered to be in a good state of repair. Given the open nature of the structures and resulting high light levels and lack of stable thermal conditions, and lack of crevice opportunities it is considered unlikely roosting bats would utilising the structure, therefore it is considered to have negligible potential as per best practise guidelines.

It is, however, considered highly likely foraging and commuting bats will utilise the site.

4.0 Evaluation

4.1 Assessment of the likely importance of the habitats present

The habitats within the area of impact are considered to be limited to site ecological value.

4.2 Assessment of the likely presence of protected and priority species

4.2.1 Bats

It is considered highly likely bats will commute over and/or forage across the site however in line with best practise guidelines (Collins, J. ed. 2023) the existing structures have been classified as having negligible potential to support roosting bats.

4.2.2 Badgers and Hedgehogs

[redacted]

4.2.3 Nesting Birds

Although not present at the time, it is considered there is potential for nesting birds within the field shelters as well as the hedgerow. As a result, the site has potential to be of site value.

4.2.4 Reptiles

Given the constant grazing within one of the paddocks (**Figure 3**) the grassland has not developed the structure considered likely to support reptiles. Although the other paddock (**Figure 4**) is subject to continual mowing, there is slightly more diversity in the sward structure which has potential to support reptiles, albeit likely limited numbers if present. As a result, it is considered the site has potential to be of site value for reptiles.

4.2.5 GCN

As above, part of the site is not considered likely to support terrestrial amphibians. The areas of longer grass could possibly support amphibians should they be present in the local area however, the nearest pond is 75m south and is separated via areas of garden space. Therefore, if they are present within this water body, it is considered more likely they would in habitat the adjacent habitats (up to 50m from the pond) rather than cross Church Lane.

4.3 Likely Impacts in the Absence of Mitigation

4.3.1 During Construction (Habitats)

Works within close proximity of the boundary hedgerows have potential to cause damage through root severance or compaction. This has potential for a permanent negative impact at site level.

4.3.2 During Construction (Wildlife)

If excavations are required for any element of the works, there is a risk that animals (such as Badgers) could become trapped and therefore harmed or injured by falling into trenches and/or excavations. Therefore, works have potential for moderate, adverse impacts at site level.

If the field shelter removal were to take place within bird nesting season and birds had occupied the structure, there is a risk birds could be harmed or killed and/or lead to nest disturbance and abandonment. Therefore, works have potential for adverse impact at site level.

If reptiles were present within the area of impact, there is a risk they could be harmed or killed. It is therefore considered, works have potential for adverse impact at site level.

4.3.3 Once Operational

Any increases in lighting have potential to result in a negative impact at site-local level.

5.0 Recommendations

5.1 Lighting

The following is from guidance published by the Institution of Lighting Professionals (ILP) (2023) relating to bats and lighting and should be considered when choosing luminaires and their potential impact:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt
- Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate

5.2 Badgers and Hedgehogs

[redacted]

5.3 Nesting Birds

Ideally the removal of the structures on site should take outside of bird nesting season (i.e. between October – February). If this is not possible a nesting bird check will be undertaken prior to works. If a nest is found works will not be able to take place until the chicks have fledged, and the nest is no longer active.

5.4 GCN and Reptiles

It is considered unlikely GCN are present however it is considered there is limited potential for reptiles within one of the paddocks. To add confidence and in line with Nature Space recommendations, the following measures will be followed:

- All vegetation within the works area shall be maintained at a maximum height of 30mm through regular mowing in order to discourage GCN and reptiles from using the site.
- In line with the above recommendations, any trenches left overnight should be covered or provided with ramps to prevent GCN (and other species such as Hedgehogs and Badgers) from becoming trapped.
- If at any point GCN are identified, then all works must stop immediately, an ecologist will be informed immediately who will provide further guidance / instruction.

6.0 Ecological Enhancements

6.1 Native Planting

Native species should be utilised on site. Where not appropriate, pollen rich species benefitting wildlife should be chosen. The following species are recommended:

6.1.1 Shrub and Hedgerows

The following species provide fruit for small mammals and birds:

Hawthorn
Holly
Elder
Hazel
Rowan

6.1.2 Borders and Flower Beds

Flowers that vary in colour, fragrance and time of flowering are encouraged especially those with landing platforms (i.e. Daisy family), umbellifers (i.e. Carrot family) and long pollen-tubes as they are likely to attract an array of pollinating insects. For example (BCT, 2018):

Lavender
Marjoram
Borage
Hemp Agrimony
Verbena
Sea Holly
Oxeye Daisy
Cosmos
Michaelmas Daisy

6.1.3 Trees

Not only will trees provide nesting bird opportunities once matured but also roosting and foraging potential for bats. The following species are recommended (Gunnel et al. 2012):

Oak,
Willow
Beech
Ash
Elm
Birch

6.2 Nesting Birds

At least three woodcrete bird nest boxes will be erected on site. An open fronted, 32mm circle entrance and 26mm circle entrance hole will be introduced.

6.3 Bat Boxes

It is recommended at least two bat boxes be erected within trees within the site ownership. Schwegler 2FN, Schwegler 1FF and the Miramare Bat Box are all recommended. They are constructed from the durable FSC certified material and painted black to absorb heat. The boxes should be sited at least 3-5m off the ground with a clear flight path for access facing south or southwest.

7.0 Conclusion

The redline boundary/area of impact is considered to be limited in terms of its ecological value (site). It is considered unlikely roosting bats will be impacted by proposals although there is potential for commuting and foraging bats, Badgers and Hedgehogs, nesting birds and reptiles. As a result, mitigation measures have been specified. It is considered, providing these are followed and the ecological enhancements recommendations implemented, proposals will result in an increased biodiversity value.

8.0 References

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APPENDIX I – Legislation and Policy

Legislation

The Wildlife and Countryside Act (1981) (as amended)

The primary legislation by which biodiversity if protected within the UK. Protected fauna and flora are listed under Schedules 1, 5 and 8 of the Act. They include all species of bats, making it an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost or to intentionally or recklessly obstruct access to a bat roost. Similarly, this Act makes it an offence to kill or injure any species of British reptiles and also makes it an offence to intentionally kill, injure or take any wild bird or to take, damage or destroy their eggs and nests (whilst in use or being built).

The Wildlife & Countryside Act (1981) states that it is an offence to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9 art II of the Act. This list over 30 plants including Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Parrots Feather (*Myriophyllum aquaticum*).

The Countryside and Rights of Way Act (2000)

This Act strengthens the Wildlife & Countryside Act by the addition of "reckless" offences in certain circumstances, such as where there is the likelihood of protected species being present. The Act places a duty on Government Ministers and Departments to conserve biological diversity and provides police with stronger powers relating to wildlife crimes.

Protection of Badgers Act (1992)
This relates to the welfare of Badgers (*Meles meles*) as opposed to nature conservation considerations. The Act prevents the wilful killing, injury, ill treatment or taking of Badgers and / or interference, damage to or destroying a Badger sett and disturbing a Badger while it is occupying a sett including causing a dog to enter a set.

Natural Environment and Rural Communities Act (2006)

The Natural Environment and Rural Communities (NERC) Act 2006 requires that public bodies have due regard to the conservation of biodiversity. This means that Planning authorities must consider biodiversity when planning or undertaking activities. Section 41 of the Act lists species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities under the *UK Post – 2010 Biodiversity Framework.*

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

The Conservation of Habitats and Species Regulations 2017 (the “Habitats Regulations 2017”) consolidate and update the Conservation of Habitats and Species Regulations 2010 (the “Habitats Regulations 2010”).

The Conservation of Habitats and Species Regulations 2017 transposed the EU Habitats Directive (Council Directive 92/43/EEC) into UK domestic law. It provides protection for sites and species deemed to be of conservation importance across Europe.

It is an offence to deliberately capture, kill or injure species listed in Schedule 2 or to damage or destroy their breeding sites or shelter. It is also illegal to deliberately disturb these species in such a way that is likely to significantly impact on the local distribution or abundance or affect their ability to survive, breed and rear or nurture their young.

Schedule 2 - European Protected Species (animals)

Common name	***Scientific name***
Bats (all species)	Vespertilionidae
Eurasian Beaver	Castor fiber
Large Blue Butterfly	Maculinea arion
Wild Cat	Felis silvestris
Dolphins, porpoises and whales (all species)	Cetacea
Dormouse	Muscardinus avellanarius
Pool Frog	Rana lessonae
Sand Lizard	Lacerta agilis
Fisher's Estuarine Moth	Gortyna borelii lunata
Great Crested Newt	Triturus cristatus
Common Otter	Lutra lutra
Lesser Whirlpool Ram's-horn Snail	Anisus vorticulus
Smooth Snake	Coronella austriaca
Sturgeon	Acipenser sturio
Natterjack Toad	Bufo calamita

Marine Turtles	Caretta caretta Chelonia mydas Lepidochelys kempii Eretmochelys imbricata Dermochelys coriacea

The Conservation of Habitats and Species Regulations 2019 (EU Exit) made changes upon the UK's exit from the European Union (EU). These include The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017. This legislation ensures the existing protections of the Wildlife and Countryside Act 1981 continue.

The Environment Act (2021)

The Environment Act 2021includes the protection of water quality, clean air and biodiversity. Part 6 of The Environment Act relates to nature and biodiversity. This section makes provision for biodiversity net gain. The legislation specifies biodiversity enhancement and includes a requirement for authorities to publish biodiversity reports including local nature recovery strategies.

Within England, the legislation also provides Natural England with the power to publish 'species conservation strategies' and 'protected site strategies' to identify activities that may affect a species or site's status and outline their opinions on measures that would be appropriate to avoid, mitigate or compensate any adverse impacts.

Policy

National

The National Planning Policy Framework (NPPF) (2025) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

Chapter 15 'Conserving and enhancing the natural environment' states that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing sites of biodiversity, the wider benefits from natural capital and ecosystem services, minimising impacts on and providing net gains for biodiversity.

The NPPF states that plans should distinguish between the hierarchy of international, national and locally designated sites and that the scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

To protect and enhance biodiversity plans should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation and promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species and identify and pursue opportunities for securing measurable net gains for biodiversity.

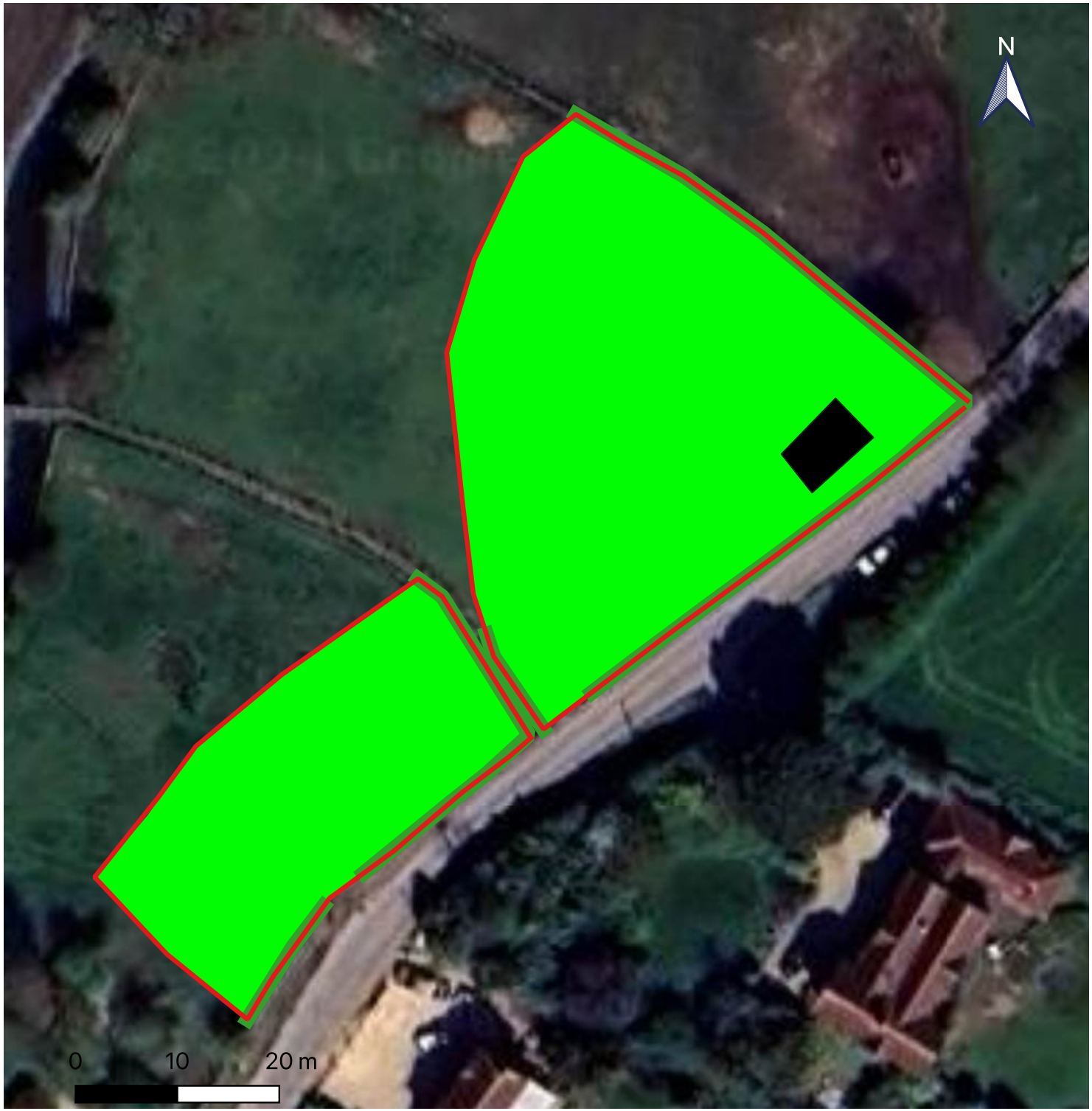
The NPPF states determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSI;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists;

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.



Legend

- Non-native Hedgerow
- Modified grassland
- Buildings
- Redline

Map	UK Habs Map
Site	Church Lane
Client	Mr Brazil
Date	07/05/2025