

Libby Morris

Ecologist



Ecological Appraisal

Site Name

The Old Lodge, Brantridge Lane

Client

Will Lynch

Date of Issue

5th March 2025

Author

Libby Morris, BSc (Hons)

Report Summary

1. Libby Morris was commissioned by Will Lynch to provide an Ecological Appraisal to be submitted to Mid Sussex District Council as part of a planning application at The Old Lodge, Brantridge Lane, West Sussex. This document outlines habitats present on site at the time of the survey as well as potential for priority species to be present within the site boundary.
2. The site currently comprises modified grassland, a main residence, associated hardstanding as well as a line of trees running adjacent to the northern boundary of the site. Proposals for this site comprise the construction of an outbuilding within close proximity of the existing residence on the modified grassland.
3. The key findings of this survey include the presence of Priority Habitat ancient woodland 50m west of the site boundary, and a pond adjacent to the eastern boundary. It is considered that there will be no loss of priority habitat or habitat valuable to protected species as a result of the works. Some modified grassland is to be lost due to works undertaken but it is thought that this will have a low impact on the overall biodiversity at site level only.
4. Recommendations for enhancements to the site have been laid out in Section 5. These include the planting of hedging, retention of unmanaged grassland borders and the implementation of bat boxes.

Table of Contents

<i>1. Introduction.....</i>	<i>5</i>
1.1 Purpose of the Report	5
1.2 Site Background	6
<i>2. Methodology</i>	<i>7</i>
2.1 Desk Study	7
2.2 Field Based Studies	8
2.3 Great Crested Newt.....	8
2.4 Common Dormouse	8
2.5 Bats	9
2.6 Reptiles	9
2.7 Badgers	9
2.8 Breeding, Wintering and Migratory Birds	10
2.9 Other species.....	10
2.10 Invasive Species.....	10
<i>3. Desk and Field Study Results.....</i>	<i>11</i>
3.1 Designated Sites and Priority Habitats.....	11
3.2 Granted EPS Licences.....	13
3.3 On-site Habitats.....	14
3.4 Great Crested Newt and other Amphibians.....	15
3.5 Common Dormouse	16
3.6 Roosting and Foraging Bats	16
3.8 Reptiles	17
3.9 Badgers	17
3.10 Breeding, Wintering and Migratory Birds.....	17
3.11 Other Species.....	18
3.12 Invasive Species	18

3.13 Survey Limitations.....	18
<i>4. Assessment of Impact</i>	<i>19</i>
4.1 Designated Sites	19
4.2 Habitats.....	19
4.3 Great Crested Newts and Amphibians	19
4.4 Common Dormouse	19
4.5 Roosting and Foraging Bats	20
4.6 Reptiles	20
4.7 Badgers	21
4.8 Breeding, Wintering and Migratory Birds	21
4.9 Other Species	21
<i>5. Enhancement Opportunities</i>	<i>21</i>
<i>6. Conclusion.....</i>	<i>22</i>
<i>APPENDIX 1 – Legislation and Best Practice.....</i>	<i>23</i>
<i>APPENDIX 2 – Reducing Impacts of Artificial Light</i>	<i>33</i>
<i>APPENDIX 3 – Conditions of use.....</i>	<i>34</i>

About the Author

This report has been prepared by Libby Morris BSc (Hons), an ecologist with seven years experience undertaking bird surveys as well as being a FISC level 3 accredited botanist and a MoRPH licenced river surveyor. She is experienced in habitat and PEA surveys as well as specialising in statutory Biodiversity Net Gain and habitat assessments.

This report has been reviewed by Kate Ellis MSc, an ecologist with ten years experience as an ecological advisor, as well as experience in undertaking habitat and wildlife surveys and Biodiversity Net Gain assessments.

1. Introduction

1.1 Purpose of the Report

Libby Morris has been commissioned to undertake a Preliminary Ecological Appraisal (PEA) of land at The Old Lodge, Brantridge Lane by Will Lynch. This report surmises the findings of a walkover of the site by Libby Morris BSc (Hons) on Monday 22nd April 2024. An assessment of the site was undertaken regarding the potential for any protected habitats or species to have been present at the site. This report also includes assessment of any potential ecological constraints and opportunities presented within the site.

Recommendations for further surveys that may be required to inform a planning application and Ecological Impact Assessment (EclA) for the proposal are provided where necessary, and possible measures to avoid, mitigate and/or compensate for significant adverse effects are summarised. The potential to incorporate ecological enhancement measures as part of the scheme is discussed.

This PEA report is designed to inform the client about the key findings of the site survey alongside the results of desk study research in relation to the context of the site, considering both the current condition of the site and the condition of the site prior to works being undertaken. Also included in this report are advisory enhancements incorporated within the National Planning Policy Framework (NPPF) requirements and Policy DP38 of the Mid Sussex District Plan found in [Appendix 1](#)

1.2 Site Background

The site is located within a rural location between Staplefield and Balcolombe, West Sussex, grid reference TQ 28767 29620. There are residential dwellings to the south of the site, with woodland to the east and north. The western boundary is adjacent to further scattered dwellings and arable fields. The site boundary for the site is shown in Figure 1.



Figure 1. An aerial image showing the location of the application site within the red boundary and the site of the proposed outbuilding in yellow. Images produced courtesy of Google maps (Map data ©2023 Google).

The proposed works comprise a single storey outbuilding in close proximity to the main dwelling to be used for agricultural storage, the plans for which are shown in Figure 2.

Old Lodge, Brantridge Lane – Ecological Appraisal

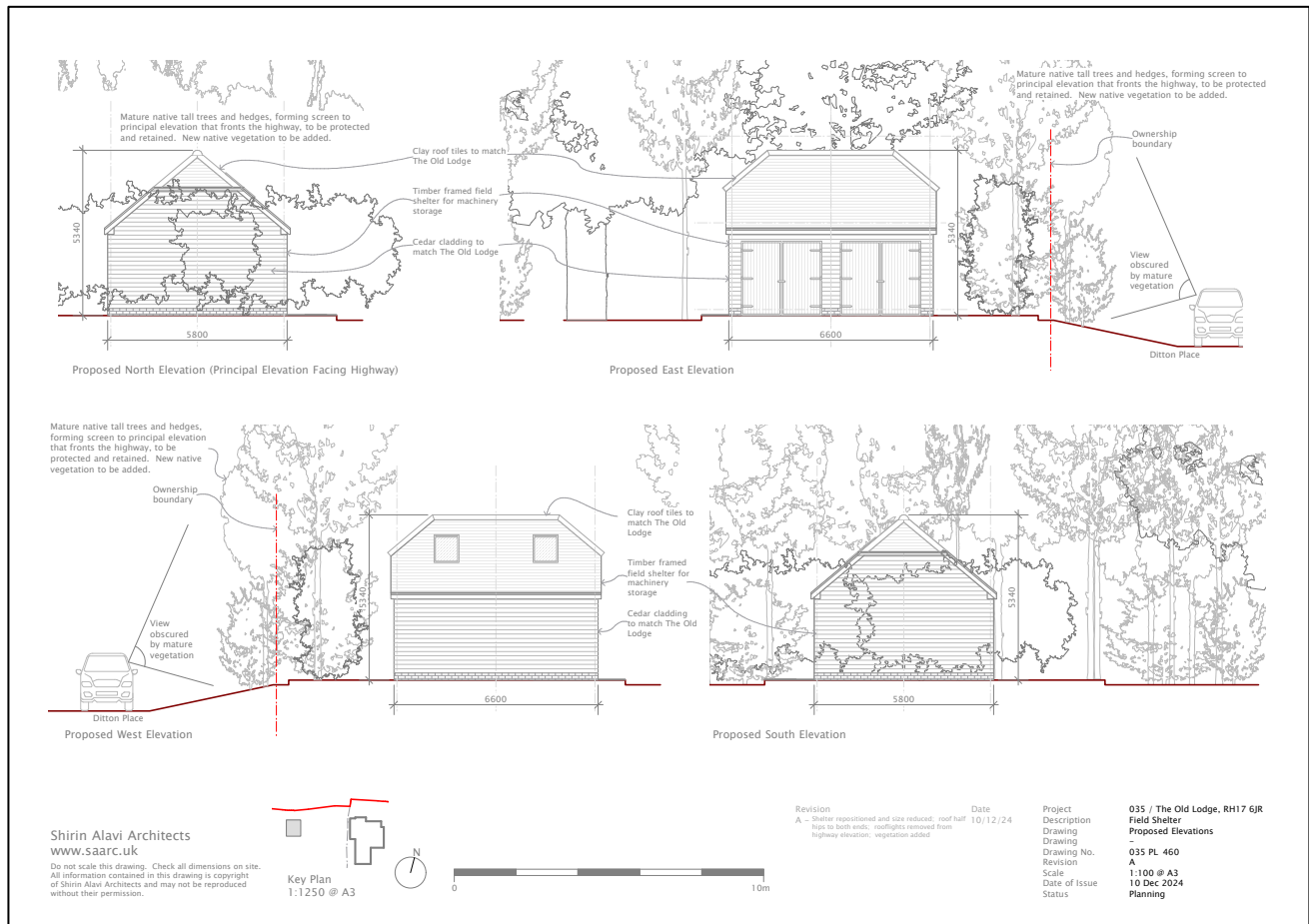


Figure 2. Proposed plans for a field shelter. Courtesy of work by Shirin Alavi Architects, 2024.

2. Methodology

2.1 Desk Study

A desk study has been undertaken using online mapping tool Magic (www.magic.gov.uk) to identify the following, either within the site itself or within a 2km radius of the site:

- A search for granted EPS licences within 2km of the site
- Designated sites within a 2km radius of the site
- Priority Habitats within a 2km radius of the site
- Ponds within 500m of the site which may hold populations of Great Crested Newt (*Triturus cristatus*)

2.2 Field Based Studies

A site walkover was undertaken on the 22nd of April 2024 by Libby Morris to assess the habitats and ecological features on site and their suitability to hold populations of European Protected Species (EPS) and other legally protected species including bats, reptiles, Common Dormouse (*Muscardinus avellanarius*) and amphibians. Other notable species and ecological features were recorded and an overall plant species list was recorded in order to effectively describe the habitats on site.

Details of the field survey methods for the assessment of the site are detailed below.

2.3 Great Crested Newt

Great Crested Newts require aquatic habitats such as ponds for breeding (although less often ditches are occasionally used), where eggs are laid on aquatic vegetation in spring. Juveniles spend most of their time on land and terrestrial phases range a considerable distance from the original breeding site. The terrestrial habitat utilised by newts varies greatly, with the most frequent being pastoral and arable farmland, woodland, scrub and grassland. Great Crested Newt populations are less able to succeed in areas with a high degree of landscape fragmentation, since they often occur in metapopulations which help ensure the survival of overall populations should a single breeding habitat be negatively impacted.

2.4 Common Dormouse

Common Dormouse are found in deciduous woodland and hedgerows, particularly coppiced woodland with an established understorey. They have low population densities and dispersal rates, making them vulnerable to fragmentation.

The site was broadly assessed for its potential to support dormice. This included use of on-line mapping resources to assess the surrounding area for connectivity to woodland, scrub and hedgerows to the wider landscape as well as recording species often used by Common Dormouse such as Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*).

2.5 Bats

Bats use a wide range of both urban and rural features for roosting and hibernation, including loft spaces, cavity walls and loose tiles, mortice joints as well as gaps in weatherboarding in built structures. They can also be found in trees with ecological niches such as holes, loose bark and ivy. There are a few key habitat characteristics that make good bat foraging habitats, primarily a suitable habitat structure including linear features such as hedgerows which provide foraging and commuting opportunities, allowing bats to move freely across the landscape. The habitats around the site were assessed both on-site and through the desk study for connectivity to assess suitability for foraging and commuting bats.

Both buildings and trees were broadly assessed for potential roosting and hibernation opportunities, with evidence confirming the presence of bats recorded as appropriate. No invasive methods were used during the survey, where both buildings and trees were surveyed for ecological niches or built features that would be appropriate for potential roosting activity.

2.6 Reptiles

Reptiles are found in a variety of habitats, primarily rough/rank grassland, gardens, areas of scrub, wetlands, woodland edges and hedgerows. All six native British reptile species are considered to have declined dramatically in the last century, largely due to loss, degradation and fragmentation of habitat.

The habitats on the site were broadly assessed for their potential to support reptiles, particularly Common Lizard (*Zootoca vivipara*), Slow-worm (*Anguis fragilis*) and Grass Snake (*Natrix Helvetica*). Particular attention was paid areas of rough grassland and woodland edges that offered refuge opportunities as well as features suitable for basking, hibernation sites such as banks, piles of organic matter and opportunities for foraging (rough grassland and scrub).

2.7 Badgers

Badgers (*Meles meles*) occupy a wide range of habitats including woodland, scrub, hedgerows, open fields and urban areas. Food supply is one of the most important factors influencing

habitat selection. Population density and territory size are all influenced mainly by food availability, with an abundance of earthworms being particularly important. Sett sizes can reach up to 150ha, comprising main setts as well as annexe, subsidiary and outlying setts.

On site habitats were assessed for their potential to support badgers, with connectivity to the wider landscape and any potential for badger presence around the site also assessed. Any signs of badger activity such as setts, footprints, latrines and pathways were recorded.

2.8 Breeding, Wintering and Migratory Birds

Birds use a wide range of habitats across the year for breeding, feeding and roosting as well as when migrating. Woodlands, gardens, hedgerows, arable fields and buildings all offer valuable habitat.

The site was assessed for habitats which offered opportunities for the above, with any species seen or heard during the survey recorded. Particular attention was paid to species red-listed Birds of Conservation Concern and those on Schedule 1 of the Wildlife and Countryside Act 1981 ([Appendix 1](#)).

2.9 Other Species

Habitats on site were assessed for their potential to support species of principal importance for nature conservation (Section 41 NERC Act 2006, [Appendix 1](#)) and other notable species. This includes mammals such as Hedgehog (*Erinaceus europaeus*), Brown Hare (*Lepus europaeus*) and invertebrates. Particular attention was paid to habitats with standing dead wood and botanically diverse habitats.

2.10 Invasive Species

Invasive Non-Native Species (INNS) are plant species which are not native to Britain, and pose a conservation threat to native biodiversity and habitats. Those listed on Schedule 9 of the Wildlife and Countryside Act (1981). Any incidental sightings of INNS were recorded during the survey walkover.

3. Desk and Field Study Results

3.1 Designated Sites and Priority Habitats

The site sits entirely within the High Weald Area of Outstanding Natural Beauty (AONB), renamed National Landscapes in 2023. The High Weald covers 1,461km² across Kent, Sussex and Surrey.

Cow Wood and Harry's Wood is a Site of Scientific Interest (SSSI) and lies 1km west of the centre point of the site. It is 75,5ha and is designated due to the presence of semi-natural ghyll woodland and streams within steep valleys. Lesser Spotted Woodpecker (*Dryobates minor*) has been recorded on the site.

Rowlands Wood, a non-statutory RSPB reserve comprising lowland deciduous and ancient woodland, lies 1km south from the centre of the site.

Both designated and non-statutory sites within 2km of the site are shown in Figure 2.

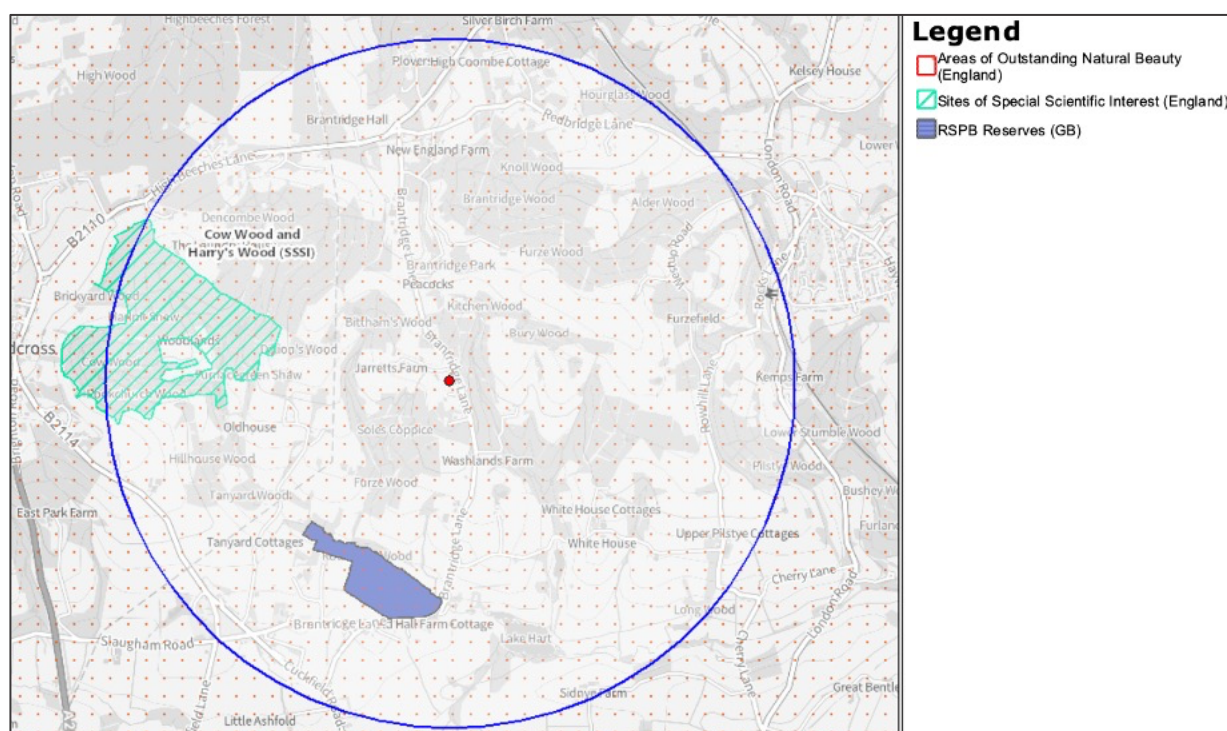


Figure 2. Designated and non-statutory sites within a 2km radius of the site. Image courtesy of Magic Map.

There are five Priority Habitat types within 2km of the centre of the application site (Figure 3.). They are described below in Table 1.

Table 1. Priority habitats within 2km of site

Habitat	Designation	Description	Distance
Ancient woodland	Priority Habitat under section 6 of the NERC act	Many ancient woods are <i>Local Wildlife Sited</i> and are encompassed by the Biodiversity Action Plan list of priority habitats (NERC Act 2006)	70m east and 156m west from the centroid point of site
Deciduous woodland	Priority Habitat under section 6 of the NERC act	There is great variety in the species composition of the canopy layer and the ground flora, and this is reflected in the range of associated NVC and Stand Types. <i>Quercus robur</i> is generally the commoner oak (although <i>Quercus petraea</i> may be abundant locally) and may occur with virtually all combinations of other locally native tree species.	140m south of the centroid point of the site
Woodpasture and parkland	BAP Priority Habitat under section 6 of the NERC act	Mosaic habitats valued for their trees, especially veteran and ancient trees and the plants and animals that they support. Specialised and varied habitats within wood-pasture and parkland provide a home for a wide range of species, many of which occur only in these habitats, particularly insects, lichens and fungi which depend on dead and decaying wood.	565m north of site within Brantridge Park
Good quality semi-improved grassland	Non Priority	Although not a priority habitat, NVC communities considered as semi-improved grassland are also listed as these swards are often the starting point for grassland restoration, and assessing progress requires a judgement on where a sward lies on the transition from semi-improved grassland to semi-natural, priority habitat.	1.26km west of site
Lowland meadow	Priority Habitat under section 6 of the NERC act	Lowland neutral meadows and pastures consist of a rich mixture of native grasses and broad-leaved herbs. They occur throughout	0,58ha on National Trust

Old Lodge, Brantridge Lane – Ecological Appraisal

		lowland UK, often on shallow slopes or level ground with relatively deep soils that is neither strongly acidic nor lime-rich.	Land, 1.64km west of the site
--	--	---	-------------------------------

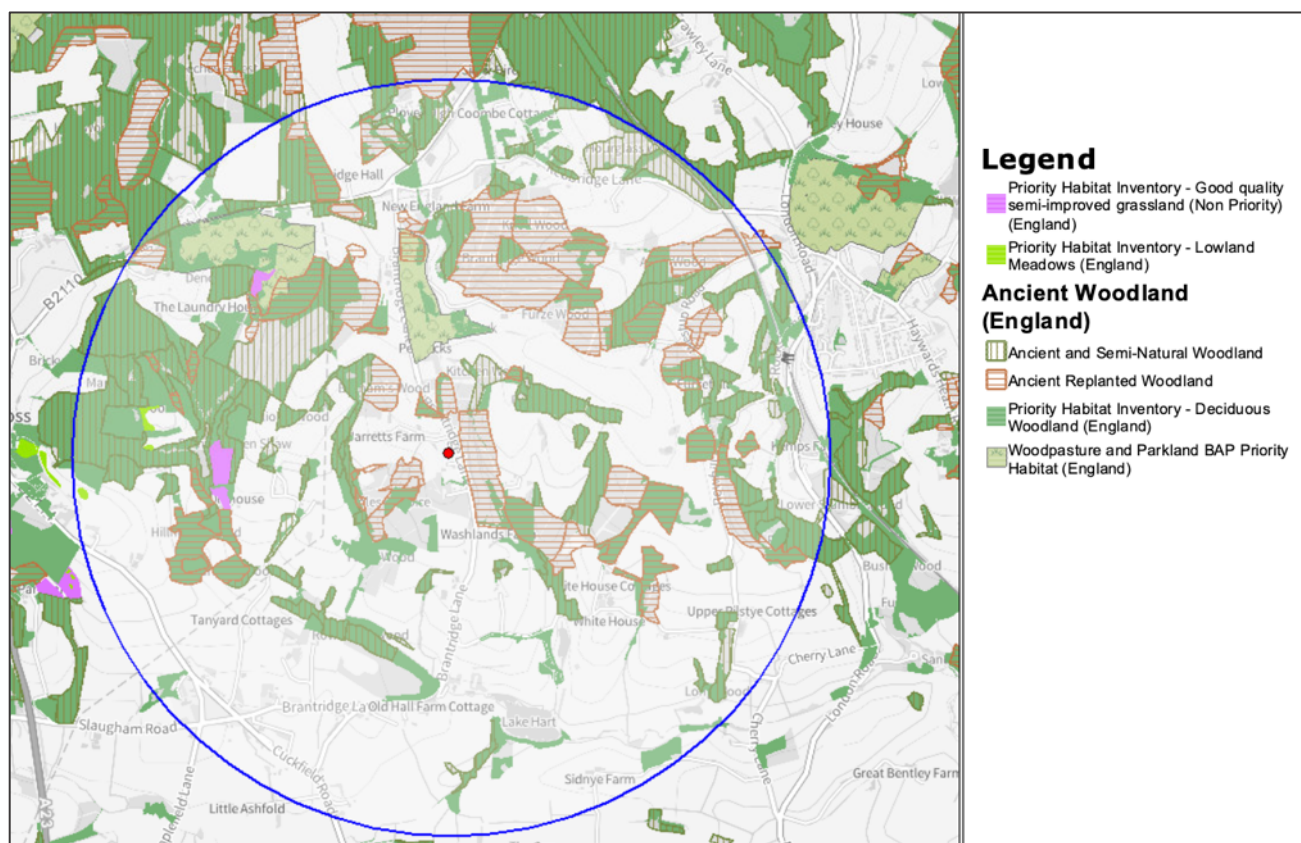


Figure 3. Aerial image showing locations of priority habitats within 2km of site. Images courtesy of Magic Maps, contains public sector information licensed under the Open Government Licence v3.0

3.2 Granted EPS Licences

There are two granted EPS licences within a 2km radius of the site. A bat EPS licence was granted in 2019, 1.7km south east of the site which granted permission for the destruction of a resting place for Common Pipistrelle (*Pipistrellus pipistrellus*) and Brown Long-eared Bat (*Plecotus auritus*). Located 1.9km east is a granted EPS licence pertaining to the destruction of a breeding and resting site for Common Dormouse, granted in 2013.

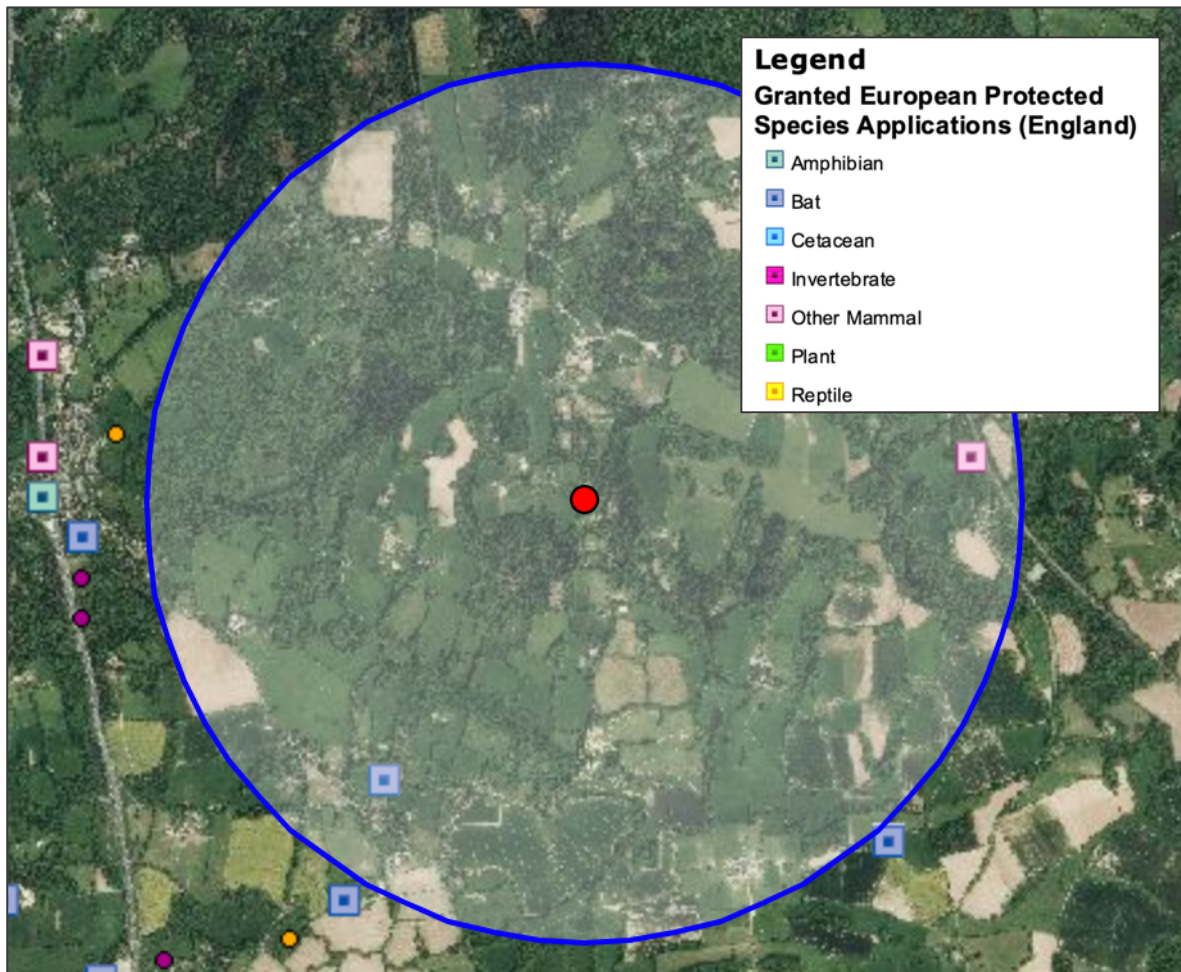


Figure 4. An aerial image showing locations of granted EPS licences within 2km of the application site. Images produced courtesy of Magic Maps, contains public sector information licensed under the Open Government Licence v3.0

3.3 On-site Habitats

The site holds a residential dwelling in the north east section (Photograph 1), with an established treeline to the north along the site boundary, comprising native species Hawthorn (*Crataegus monogyna*), Field Maple (*Acer campestre*), Holly (*Ilex aquafolium*), Ash (*Fraxinus excelsior*) and Oak (*Quercus robur*) (Photograph 2). There had been some work undertaken recently on the Ash at the time of the survey and much of it had been removed due to Ash Dieback (*Hymenoscyphus fraxineus*) and placed in piles along the treeline boundary (Photograph 3). The majority of the site comprises close-mown, modified grassland within a garden setting (Photograph 4). The grassland is dominated by Perennial Rye-grass (*Lolium perenne*), White Clover (*Trifolium repens*), Broad-leaved Dock (*Rumex obtusifolius*), Spotted Medick (*Medicago arabica*), Creeping Buttercup (*Ranunculus repens*) and Greater Plantain

(*Plantago major*). There is some evidence of grazing by deer within the sward and some areas of bare ground.



Photograph 1 (left). Site of proposed outbuilding in proximity to main residence



Photograph 2 (right). Treeline to north of site boundary



Photograph 3 (left). Site of proposed outbuilding with dead wood pile from Ash Dieback present



Photograph 4 (right). Site comprises mostly short grassland sward

3.4 Great Crested Newt and other Amphibians

There is a pond 70m west of the zone of construction. This holds potential for Great Crested Newt with some marginal aquatic vegetation. No evidence of breeding activity was observed at the time of the site walkover. There is a second pond 180m south of the site within a residential garden which was not accessible at the time of the survey.

The area of works itself does not hold suitable terrestrial habitat for Great Crested Newt, as the grassland habitat is kept close-mown and there is limited habitat for refuge or commuting. The line of trees at the north of the site boundary holds valuable connectivity between the pond to the west and the wider landscape.

The Sussex Biodiversity Records Centre hold ten records for Great Crested Newt. The closest with a specified location was recorded in 2012 and located 1.3km south west of the site. There were a total of four records for Common Toad (*Bufo bufo*) within 2km of the site, the closest being 1.3km north east of the site.

3.5 Common Dormouse

There is no woodland on or adjacent to the site itself. There is ancient woodland 50m east of the site but this is beyond the zone of impact of construction. There is a line of trees to the north of the site which holds low potential for Common Dormouse given that it has a minimal shrub layer and widely spaced trees.

The Sussex Biodiversity Records Centre hold forty records for Common Dormouse. The closest was recorded in 2012 and located 1.16km south of the site.

3.6 Roosting and Foraging Bats

There are two veteran Oak trees adjacent to the western site boundary that hold potential for roosting bats located at TQ 28736 29644 and TQ 28728 29638, given the presence of ecological niches including a cover of Ivy (*Hedera helix*), fallen branches and crevices. The treeline to the north of the site is connected to these trees and offers valuable connectivity between the hedgerows and treelines to all aspects of the site, along with the arable fields and hedgerows across the wider landscape. There are also mature trees and areas of woodland within the wider landscape beyond the build site which offer valuable foraging, commuting and roosting habitat.

The Sussex Biodiversity Records Centre hold 224 records for bats within 2km of the site, with 221 of these records being made at Nyman's, Handcross. The closest recorded was of a Brown Long-eared Bat made in 2023 and located 1.25km west of the site. Species recorded within

2km of the site are Western Barbastelle (*Barbastella barbastellus*), Serotine (*Eptesicus serotinus*), Alcaholic Bat (*Myotis alcathoe*), Bechstein's Bat (*Myotis bechsteinii*), Daubenton's Bat (*Myotis daubentonii*), Whiskered Bat (*Myotis mystacinus*), Natterer's Bat (*Myotis nattereri*), Noctule (*Nyctalus noctule*), Nathusius's Pipistrelle (*Pipistrellus nathusii*), Common Pipistrelle (*Pipistrellus pipistrellus*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*).

3.8 Reptiles

The grassland habitat present within the development site is kept close-mown and is currently unsuitable for common reptile. The presence of dead wood hibernacula adjacent to the northern treeline boundary holds some refuge potential for reptiles. There is some connectivity to wider suitable habitat although much of site does not contain any suitable habitat for reptiles and comprises predominately close-mown modified grassland and arable fields.

The Sussex Biodiversity Records Centre hold eight records for reptiles within 2km of the site. The closest recorded was of a Common Lizard (*Zootoca vivipara*) made in 2022 and located 620m east of the site. Grass Snake (*Natrix Helvetica*) and Slow Worm (*Anguis fragilis*) have also been recorded within 2km of the site, both of which were most recently recorded in 2010.

3.9 Badgers

No signs of any badger activity were seen during the survey assessment, though there are habitats of value for this species within the wider landscape, particularly open fields and woodland in the extended landscape. It is likely that if any setts were situated within 30m of the site boundary, then evidence of badger activity would have been observed.

The Sussex Biodiversity Records Centre does not disclose records of Badgers for safeguarding purposes.

3.10 Breeding, Wintering and Migratory Birds

All of the scrub and mature trees within the site boundaries, particularly the treeline edge habitat to the northern aspect of the site, holds potential to support populations of common

breeding birds. There was high foraging activity within the close-mown grassland on the site and it is likely that breeding birds are utilising the site for foraging. Bird species recorded during the site survey include Robin (*Erithacus rubecula*), Great Tit (*Parus major*), Blackbird (*Turdus merula*) and Song Thrush (*Turdus philomelos*).

The Sussex Biodiversity Records Centre hold 972 records for notable birds¹ within 2km of the site. Most notable include Dunnock (*Prunella modularis*), Nightjar (*Caprimulgus europaeus*), Lapwing (*Vanellus vanellus*), Hobby (*Falco Subbuteo*), Skylark (*Alauda arvensis*), Marsh Tit (*Poecile palustris*), Barn Owl (*Tyto alba*) and Hawfinch (*Coccothraustes coccothraustes*).

3.11 Other Species

The site holds foraging opportunities for Hedgehog within the scrub and tree-edge habitat to the north of the site. The presence of dead wood and the floristic biodiversity within the site also offers potential to support a suite of invertebrate species.

3.12 Invasive Species

No invasive non-native species (INNS) were observed during the site walkover.

The Sussex Biodiversity Records Centre holds records for a total of twenty INNS species within 2km of the site, most notably Giant Hogweed (*Heracleum mantegazzianum*), Japanese Knotweed (*Fallopia japonica*) and American Skunk-cabbage (*Lysichiton americanus*).

3.13 Survey Limitations

A site assessment such as this is only able to act like a 'snapshot' to record the presence of any flora or fauna at the time of the survey. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence has been found.

¹ Schedule 1 under the Wildlife and Countryside Act 1981 (as amended) or Section 41 under the NERC act; further information in [Appendix 1](#).

4. Assessment of Impact

4.1 Designated Sites

National Landscape Management Plans may be material considerations for making decisions on planning applications within National Landscapes and their settings, however the proposed construction holds a small footprint and does not impact on any designated sites or valuable habitats.

4.2 Habitats

The construction of the outbuilding represents a permanent loss of some modified grassland on the site. However, it is thought that no habitats of ecological value would be lost as a result of this development. Due to the relatively small scale of the works, the majority of the grassland habitat remains in situ. Further enhancements to the site are recommended in [Section 5](#).

4.3 Great Crested Newts and Amphibians

There is a recently placed pile of dead wood along the northern boundary of the site and some suitable edge habitat across the northern boundary of the site suitable for commuting amphibians, however the site is poorly connected to other favourable habitat and the grassland is close-mown which offers limited opportunities for amphibians. There is no known population within the area, therefore it is considered that Great Crested Newts and amphibians are unlikely to be present at the site, and it is unlikely that they would be impacted as a result of construction. However, the dead wood placed to the north of the site boundary along the treeline must be removed prior to the commencement of works to ensure that no herptiles are using it for refuge during the winter hibernation period and placed elsewhere on the site to create new refuge habitat for amphibians. No further surveys for this species are required.

4.4 Common Dormouse

The treeline to the north of the northern boundary is open and sparsely vegetated, with much open space and no substantial shrub layer, making the presence of Common Dormouse within the site in question unlikely. This along with the small scale of the development therefore

means that it is unlikely that the development of the site will impact on Common Dormouse. No further surveys for this species are required.

4.5 Roosting and Foraging Bats

There is valuable connectivity between the hedgerows and treelines to all aspects of this site with the arable fields and hedgerows across the wider landscape. There are two Oak trees which offer particular potential for roosting bats.

Given the close proximity of the development to the treeline valuable to commuting and foraging bats, artificial light sources should be kept to a minimum on all aspects of the property which are overlooking this habitat. It is advised that there is no flood lighting on these elevations, and any necessary outdoor lights will comply with the artificial lighting guidelines and regulations in [Appendix 2](#).

No buildings or trees with roosting potential are to be impacted by the proposed works. No further surveys for this species are required.

4.6 Reptiles

There is no grassland habitat on the site which held suitable habitat for reptiles at the time of survey. The zone of impact through construction holds low potential for the presence of reptiles given the close-mown amenity grassland currently present. However, the dead wood placed to the north of the site boundary along the treeline must be removed prior to the commencement of works to ensure that no reptiles are using it for refuge during the winter hibernation period and placed elsewhere on the site to create new refuge habitat for reptiles.

No habitat of value to reptiles is to be lost as part of the proposed works, no further surveys for this species are required.

4.7 Badgers

No signs of badger activity were identified during the assessment and no badger setts are situated on or near to the construction zone. The works are unlikely to have impact on badgers or their setts and no further surveys for this species are required.

4.8 Breeding, Wintering and Migratory Birds

Due to the scale and nature of the works the impact on the surrounding habitat is considered to be low, given that no habitat of use for breeding birds is proposed to be cleared as part of the construction works. Whilst the grassland was observed being utilised for foraging by breeding birds, it is not thought that the minimal amount of grassland lost through works will impact on birds present on the site, especially considering the species-rich sward across the rest of the site along with the extended landscape. No further surveys for this species are required.

4.9 Other Species

The impact on any other notable species such as Hedgehog is considered to be low, given that minimal habitat of value for foraging Hedgehog is to be lost during the undertaking of works.

The presence of a small amount of dead wood and the floristic diversity of the grassland offers valuable habitat for invertebrates, although it is thought that no long-term impact will occur on invertebrate assemblages due to the relatively small scale of the works undertaken.

5. Enhancement Opportunities

Enhancement of the native treeline through the introduction of new native hedge species along the northern boundary would aid in increased landscape connectivity for birds, reptiles and mammals such as Hedgehog. Introducing areas of scrub and incorporating an unmanaged border of one metre around the grassland boundary would further increase connectivity and enhance the area for wildlife whilst increasing botanical biodiversity.

The dead wood piles left on the site have created hibernacula which could hold refuge and foraging opportunities for a number of invertebrates and reptiles. When left in areas which

experience 50% shade such as that found on site, these create dead wood habitat for saproxylic invertebrates which depend on decaying wood for at least one aspect of their lifecycle, and represent 20% of British fauna. The dead wood pile on the northern boundary within the zone of impact is to be moved to another area of the site to ensure that it is not used for hibernating reptiles or amphibians.

Implementation of bat boxes on the south and eastern faces of the new outbuilding is recommended as this would enhance the site for roosting bats, of which there is currently limited potential across the site. The addition of bird boxes on the proposed outbuilding would also encourage breeding birds to utilise the site and would be in close proximity to foraging habitat.

6. Conclusion

The land at Old Lodge, Brantridge Lane comprises an area of modified grassland with a native treeline to the north. The use of the grassland as amenity means that there is no suitable habitat on the site for reptiles or amphibians, however it may be used by foraging bats.

It is considered that the construction of an outbuilding will result in minimal loss to habitat and disturbance to a small proportion of amenity grassland within the site. Based on the evidence available, the scale of these impacts is likely to be minimal as limited suitable habitat for reptiles or amphibians has been observed, and the construction of an outbuilding holds potential to offer roosting opportunities for bats and birds. The enhancement opportunities identified in section 5 will result in likely beneficial effects for biodiversity at the site should they all be implemented in full. Once exact plans for the site including soft and hard landscaping have been finalised, more specific enhancements can be outlined.

If any protected species are found during any further works undertaken on the site, work should be stopped immediately and an ecologist must be contacted for advice.

APPENDIX 1 – Legislation and Best Practice

- **The Conservation of Habitats and Species Regulations 2017**

These regulations, referred hereafter as “the Habitats Regulations”, represent the primary method by which Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”) is transposed for England and Wales and their territorial seas. The Habitats Directive, in conjunction with the Birds Directive (Council Directive 2009/147/EEC) forms the basis for implementation of Europe’s nature conservation policy through both habitat and species level protection. The Habitats Directive requires the designation of strictly protected European sites known as Special Areas of Conservation (SACs). Together with the Special Protection Areas (SPAs) established by the Birds Directive, these collectively form the Natura 2000 Network of protected sites. The Habitats Directive also requires the strict protection of animals and plants of Community Interest listed under Annex IV. Habitat types requiring strict protection as SACs are listed under Annex I. The conservation of animals and plants listed under Annex II requires the designation of SACs. The Habitats Regulations require that public bodies must exercise their nature conservation responsibilities to ensure compliance with the Habitats Directive. These regulations also require the conservation of natural habitats and habitats of species through the selection, designation and notification of marine and terrestrial ‘European Sites’ to be afforded protection under the Habitats Directive. The habitats and species of European Importance are listed under Annexes I and II of the Habitats Directive. The regulations also contain provision for the appropriate management of these European Sites including the control of damaging operations, special nature conservation orders and restoration orders, for example. The Habitats Regulations afford strict protection to European Protected Species of animals under Schedule 2 and plants under Schedule 5. Offences (subject to certain exceptions) include the deliberate capture, killing, disturbance or trade in these animals. Similarly plants listed under Schedule 5 are protected (subject to exceptions) from picking, collection, cutting, destruction or trade.

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

The Wildlife and Countryside Act 1981 (as amended) (WaCA) is still a leading mechanism for the legislative protection of wildlife and national parks across the United Kingdom. The WaCA

draws on elements of pre-existing legislation and supports the Habitats Regulations in implementing the Bern Convention (1979) and Directive 2009/147/EC on the conservation of wild birds. Schedules within the WaCA provide a list of protected species and habitats, in addition to prohibited actions. It also contains measures for controlling invasive non-native species and amendments to a number of laws. Most notably within the scope of this report are Schedule 9 of the WaCA which lists non-native species that are already established in the wild and continue to pose a conservation threat to native biodiversity and habitats and stipulates that further releases should be regulated. Schedule 9 also includes some native species (for example, Barn Owl (*Tyto alba*)) in order to provide a level of control to ensure that releases, in particular re-introduction programmes, are carried out in an appropriate manner and biodiversity is properly safeguarded; and Schedule 14, which prohibits the introduction into the wild of any animal of a kind which is not ordinarily resident in, and is not a regular visitor to, Great Britain in a wild state, or any species of animal or plant listed in Schedule 9 of the WaCA.

- **The Natural Environment and Rural Communities (NERC) Act 2006**

The Natural Environment and Rural Communities Act imposes a Biodiversity Duty (S.40) on all public bodies to conserve biodiversity at both species and habitat levels (S40);

“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”

Section 41 of the Act requires the publication of a list of

“living organisms and types of habitat which in the Secretary of State’s opinion are of principal importance for the purpose of conserving biodiversity.”

The list generated under Section 41 of the Act contains a number of types of habitats and species of animal and plant that have the potential to be affected by development projects of a range of sizes and impacts including lowland deciduous woodland, floodplains and calcareous grassland habitats.

The Act also establishes Natural England as the independent body to:

“ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development”.

943 species and 56 habitats of principal importance are included on the S41 list as guidance for public bodies on decisions that affect biodiversity.

- **The Hedgerow Regulations 1997**

On 1 June 1997, the Hedgerow Regulations came into force under section 97 of the Environment Act 1995 to address the dramatic decline in UK hedgerows. The regulations protect important hedgerows by limiting removal through a system of notification via local planning authorities. The regulations are aimed at countryside hedgerows in England and Wales;

Section 3.6: *“on or adjoining, common land, village greens, Site of Special Scientific Interest (which include National Nature Reserves, Special Protection Areas under the Birds Directive and Special Areas of Conservation under the Habitats Directive), Local Nature Reserves, or land used for agriculture, forestry or the breeding or keeping of horses, ponies or donkeys”*

Written permission is required from the local planning authority before the removal of any hedgerow over 20 metres and more than 30 years old. Hedgerows less than 20 metres long may also be considered if they form part of a continuous network of hedges.

The LPA will then either issue a Hedgerow Retention or Hedgerow Removal Notice within 42 days depending on whether they define the hedgerow as important or not based on the following criteria:

- “They have been in existence 30 years or more; and”
- “They satisfy at least one of the criteria set out in Part II of Schedule 1 of the Regulations.”

Exemptions to the Regulations fall into three categories:

- “small scale works;”
- “works approved under other procedures which ensure careful assessment and consideration of the impact on the local environment; and”
- “works authorised under other legislation which justify the removal of a hedgerow without first establishing its importance.”

It is an offence to remove a hedgerow subject to a retention notice, or to remove a hedgerow protected under the Hedgerow Regulations without first obtaining the required removal notice.

Updated regulations as part of the Hedgerow Regulations due in 2024 regulations will include a two metre ‘buffer strip’ from the centre of hedgerows with no cultivation or application of

pesticides or fertilisers, and a hedge cutting ban between 1 March and 31 August to protect nesting birds. These updates are also to include over 90,000km of hedgerows being managed through 16,000 agreements in the government's Countryside Stewardship and Sustainable Farming Incentive schemes, and more than 13,000km of hedgerows created or restored using Countryside Stewardship grants.

- **The UK Post-2010 Biodiversity Framework**

The UK Post-2010 Biodiversity Framework was published on 17 July 2012. It was produced by JNCC and Defra, on behalf of the Four Countries' Biodiversity Group (4CBG), through which the environment departments of all four governments in the UK work together. It covers the period from 2011 to 2020, and was developed in response to two main drivers: the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and its five strategic goals and 20 'Aichi Targets', published in October 2010; and the EU Biodiversity Strategy (EUBS), released in May 2011. The framework shows how the work of the four UK countries joins up with work at a UK level to achieve the 'Aichi Targets' and the aims of the EU Biodiversity Strategy. It identifies the activities required to complement the country biodiversity strategies, and where work in the country strategies contributes to international obligations. In total, 23 areas of work were identified where all the countries agreed that they wanted to contribute to, and benefit from, a continued UK focus.

The development of the framework reflects a revised direction for nature conservation, towards an approach which aims to consider the management of the environment as a whole, and to acknowledge and take into account the value of nature in decision-making. The framework sets out the common purpose and shared priorities of the UK and the four countries, and, as such, is a hugely important document, which is to be owned, governed, and implemented by the four countries.

- **National Planning Policy Framework (NPPF)**

This framework acts as guidance for planning authorities (LPAs) in England to form Local Plan policies in favour of sustainable development as part of the government's reforms to increase the accessibility of the planning system and promote long term sustainable growth.

The framework states that “planning policies and decisions should contribute to and enhance the local environment” (paragraph 170).

Chapter 15 of the framework focusses on habitats and biodiversity. Specifically, paragraph 175 states:

“...when determining planning applications, local planning authorities should apply the following principles:

- 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'*
- development on land within or outside a Site of Special Scientific Interest, 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 Sites of Scientific Interest (SSSI);*
- development proposals whose primary objective is to conserve or enhance biodiversity should be supported;*
- opportunities to incorporate biodiversity improvements in and around developments should be encouraged;*
- 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”*

The NPPF also states section 185 in regard to planning applications:

“To protect and enhance biodiversity and geodiversity, plans should:

a) 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

b) 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.”

- **Circular 06/2005: Biodiversity and Geological Conservation**

The Circular 06/2005 complements the NPPF by advising on how the law relates to planning and nature conservation in England, with particular reference to designated sites and protected species;

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision” (Paragraph 99).

However;

“developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development.”

Part IV also reminds LPAs and developers that licences and mitigation measures may be required in addition to planning permissions if protected species are to be affected by the development

“The breach of protected species legislation can often give rise to a criminal offence”
(Paragraph 101).

- **Bats**

All British bats are “European Protected Species” (EPS) and listed on Annex II and Annex IV of the EC Habitats Directive. The Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. The following actions affecting bats are prohibited under the legislation:

- deliberate capture, injury or killing of a bat;
- deliberate disturbance of a bat and in particular disturbance which is likely to impair their ability:

- to survive, to breed or reproduce, or to rear or nurture their young, or
- in the case of animals of a hibernating or migratory species, to hibernate or migrate;
- or to affect significantly the local distribution or abundance of the species to which they belong.

- damage or destruction of a breeding site or resting place;
- possessing, controlling transporting, selling or exchanging, or offering for sale or exchange any bat or any part of a bat or anything derived from one.
-

Bats are also afforded protection from intentional or reckless 'disturbance' by the Wildlife and Countryside Act 1981 (as amended). The deliberate or reckless obstruction of access to a structure or place used by bats for shelter and protection is also an offence under the Act.

- **Birds**

All wild birds in the UK are afforded protection under the Wildlife and Countryside Act 1981 (as amended). This protection includes killing, injuring or taking wild birds as well as taking, damaging or destroying bird nests in use or being built, and taking or destroying eggs. Birds listed under Schedule 1 of the Act are afforded additional protection from disturbance during nesting and offences relating to these birds are subject to special penalties. The nest sites of birds listed under Schedule ZA1 of the act are afforded strict, year-round protection even when the nests are not in active use.

Notable bird species are protected under either Schedule 1, Part 1 of the Wildlife and Countryside Act 1981 (as amended) or Section 41 of the NERC act 2006.

- **Reptiles**

All species of native reptiles are protected against killing or injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The Sand Lizard (*Lacerta agilis*) and Smooth Snake (*Coronella austriaca*) are further protected under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 against capture or disturbance and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed.

- **Great Crested Newts**

The Great Crested Newt and its habitat are protected under the Wildlife and Countryside Act 1981(as amended) and The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment)(EU Exit) Regulations 2019. This legislation makes it an offence to deliberately kill, injure or capture a Great Crested Newt; deliberately disturb a Great Crested Newt; damage, destroy or obstruct access to a structure used for shelter or protection by a Great Crested Newt; or possess or transport a Great Crested Newt. Great Crested Newts are also afforded protection from intentional or reckless 'disturbance' by the Wildlife and Countryside Act 1981(as amended). The deliberate or reckless obstruction of access to a structure or place used by great crested newts for shelter and protection is also an offence under the Act. This applies to both aquatic and terrestrial habitat

- **Badgers**

Badgers and their setts are protected under the Protection of Badgers Act 1992 which makes it an offence to kill, injure or possess a badger; interfere with, damage or destroy a Badger sett including obstructing access to a badger sett; cruelly treat or harm a Badger; or disturb a Badger in a sett.

- **Otters**

Otters (*Lutra lutra*) and their resting places are protected under the Wildlife and Countryside Act 1981(as amended) and the The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment)(EU Exit) Regulations 2019. This legislation makes it an offence to deliberately kill, injure or capture an Otter; deliberately disturb an Otter in their breeding or resting places; damage, destroy or obstruct access to their resting or breeding places.

- **Water Voles**

Water Voles (*Arvicola amphibius*)are protected under the Wildlife and Countryside Act 1981(as amended) from killing or taking by certain prohibited methods. Their breeding and resting places are fully protected from damage, destruction or obstruction; it is also an offence to disturb them in these places.

- **Common Dormouse**

Common dormice are protected under both The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment)(EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended). Dormice and their breeding sites and resting places are fully protected. Without a licence it is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess or sell a wild Dormouse.

- **White-clawed crayfish**

White-clawed Crayfish (*Austropotamobius pallipes*) are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) protecting them from harm, disturbance and capture without an appropriate licence. It is illegal to buy or sell White-clawed Crayfish whether alive or dead.

- **Invertebrates**

Three UK invertebrate species are protected under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment)(EU Exit) Regulations 2019; the Large Blue butterfly (*Phengaris arion*), Fisher's Estuarine moth (*Gortyna borelii*) and Little Ramshorn Whirlpool snail (*Anisus vorticulus*). It is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess or sell these species. Approximately 400 further invertebrate species are listed as 'Species of Principle Importance under Section 41 of the NERC Act.

- **Invasive Plant Species**

It is prohibited to plant or otherwise cause to grow in the wild any species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The Environmental Protection Act 1990 also classifies certain invasive plants as controlled waste which must be disposed of safely at an appropriately licensed landfill site, in particular Japanese Knotweed (*Reynoutria japonica*).

Under section 57 of the Anti-social Behaviour, Crime and Policing Act 2014, if an individual or an organisation fails to control an invasive plant species which is having a detrimental effect on the quality of life of those in the locality then a notice can be issued after a mandatory written warning has been served. Breach of this notice, without reasonable excuse, would be a criminal offence, subject to fixed penalty notice (a penalty of £100) or prosecution. On summary conviction an individual could be liable to a level 4 fine and an organisation could be liable to a fine not exceeding £20,000.

- **Definitions of Statutory and Non-Statutory Sites**

Name	Statutory/Non-statutory	Definition
SAC – Special Area of Conservation	Statutory	Strictly protected sites designated under the EC Habitats Directive, that will make a significant contribution to conserving habitats or species identified in Annexe I and II of the Directive (as amended).
SPA – Special Protection Area	Statutory	Strictly protected sites classified in accordance with Article 4 of the EC Birds Directive. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive).
SSSI – Site of Special Scientific Interest	Statutory	SSSIs provide statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features.
NNR – National Nature Reserve	Statutory	NNRs contain examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats or to provide opportunities for scientific study.
LNR – Local Nature Reserve	Statutory	LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.
Ramsar – Ramsar Site	Statutory	Ramsar sites are wetlands of international importance designated under the Ramsar Convention.
LWS – Local Wildlife Site SINC – Site of Importance for	Non-statutory	Areas of land with significant wildlife value for the local area.

Nature Conservation		
CWS – County Wildlife Site	Non-statutory	Areas of land with significant wildlife value for the county

APPENDIX 2 - Reducing Impacts of Artificial Light

External lighting has been proven to have a negative impact on foraging and commuting bats, as well as impact other nocturnal species such as invertebrates, birds and mammals such as Badger and Hedgehog. The Bat Conservation Trust has guidelines² which should be referred to when designing lighting schemes for proposed developments. In areas where the introduction of lighting will have a significant impact on the surrounding environment such as rural locations it is recommended that an ecologist is consulted prior to a lighting scheme being designed. The key measures recommended by the guidelines are as follows:

- Avoid unnecessary exterior lighting where possible
- Maintain a balance between appropriate lighting levels and the impact that exterior lighting will have on wildlife
- Comply with existing legislative buffers and avoid lighting key habitats and features altogether.
- Avoid lighting key habitats and features altogether
- Comply with guidance on illuminance levels and buffers

It may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required. Baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed

² Bat Conservation Trust and Institute for Lighting Professionals (2023) Guidance note 8. Bats and Artificial Lighting. Available [online](#)

or modelled illuminance limits being achieved. As a condition of planning, post- completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

The Bat Conservation Trust recommends the following specifications for lighting on developments to prevent disturbance:

- Lighting spectra: peak wavelength >550nm
- Colour temperature: <2700K (warm)
- Reduction in light intensity
- Minimal UV emitted
- Upward light ratio of 0% and good optical control

APPENDIX 3 – Conditions of use

This report has been prepared by Libby Morris, with all due diligence and care within the terms of the Contract with the client. This report only becomes the property of the client once payment for it has been received in full. The author disclaims any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client, and the author accepts no responsibility to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.