

CEMP: Biodiversity

**Land at Oaklands Farm, Leywood Road,
Harvel, Kent DA13 0UD**

Report to:
Mr. Ben Merchant

23rd September 2024



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Information, including any survey data, contained within this report must only be relied upon for a maximum period of 18 months from the date of the report.

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1. Summary

Background

- 1.1 Land at Oaklands Farm, Harvel has been proposed as the location of a new development project that will include conversion of an existing barn into a new holiday let.
- 1.2 Following a Preliminary Ecological Appraisal, Calumma Ecological Services was commissioned to prepare a CEMP: Biodiversity report for the proposed project.

Habitats and Designated Sites

- 1.3 The proposed development site includes an area of modified grassland that is bordered by deciduous woodland. Several mature trees are situated within the grassland.
- 1.4 No other specific botanical interest was identified from the grassland.
- 1.5 The site is located close to statutory and non-statutory sites designated for their nature conservation interest.

Biodiversity Constraints

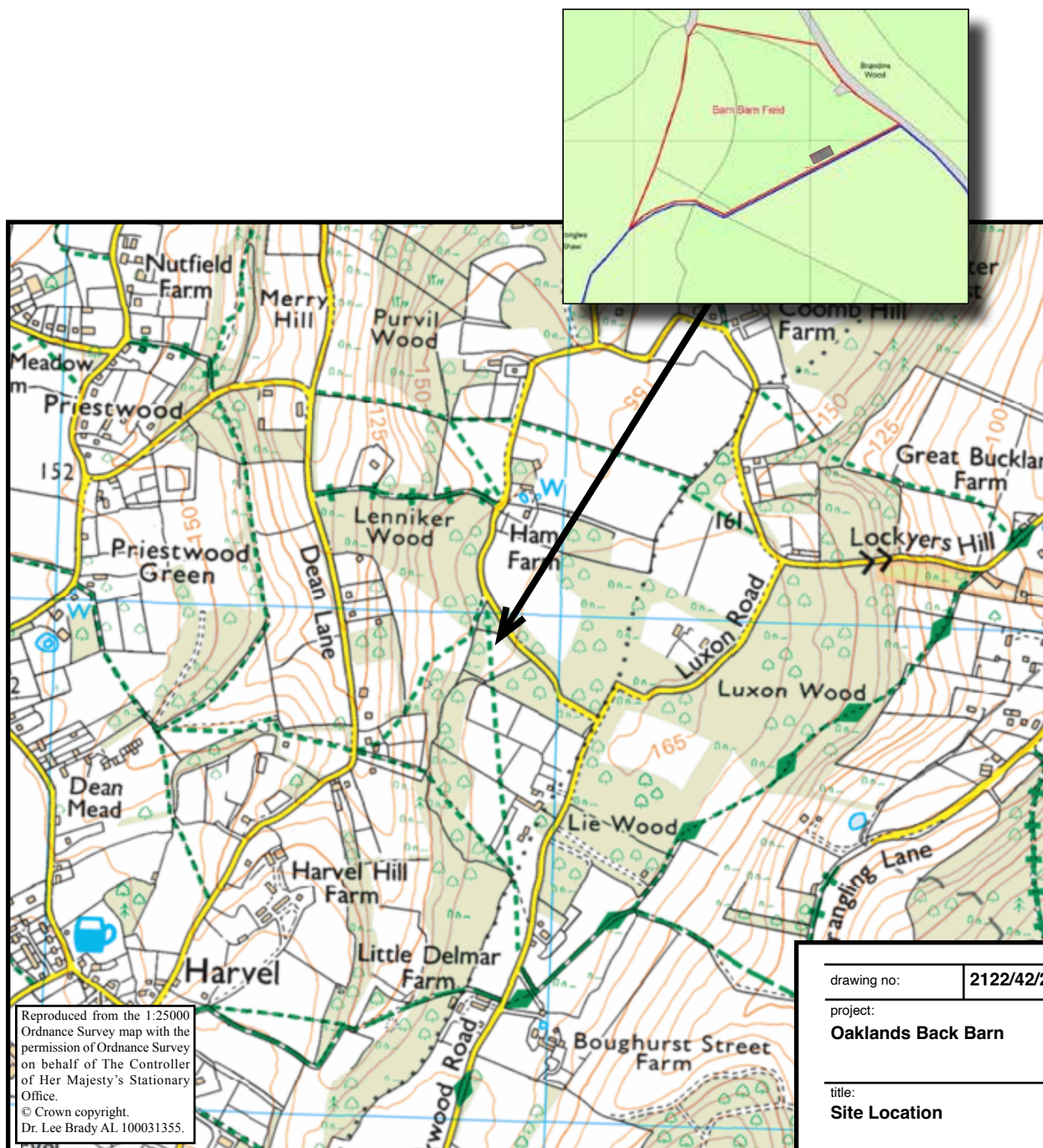
- 1.6 Care must be taken to ensure that nesting birds are not disturbed during proposed works.
- 1.7 Mature trees within and adjacent to the site display holes, cracks and crevices that offer potential for roosting bats. Current proposals indicate that no trees will be disturbed.
- 1.8 The area is likely to support foraging and commuting bats. No lighting is proposed for the development project.
- 1.9 Grassland displays a relatively simple structure that limits its suitability for supporting sheltering amphibians and reptiles. Appropriate precautionary avoidance measures have been proposed.
- 1.10 Woodland and scrub in the local area supports dormouse. Works will avoid all disturbance to woody vegetation (including brambles).
- 1.11 No ground works are anticipated. If trenches are subsequently required and left open overnight they must include a means of escape for any badgers, hedgehogs or other mammals that may fall in.

2. Site Location and Context

Site Name:	Land at Oaklands Farm, Harvel - <i>the site</i> ; Fig. 2.1
Grid Reference:	TQ 659 638
County:	Kent
Planning Authority:	Gravesham
Planning Refs:	20211161
National Character Area:	North Downs
Client:	Mr. Ben Merchant
Proposed Disturbance:	Conversion of barn into residential let.
Red Line Application Area:	1.29 Ha
Project Size:	Small
Report Request:	CEMP: Biodiversity
Surveyor:	Lee Brady PhD, BSc (Hons), MCIEEM Great Crested Newt Class Licence: 2015-19076-CLS-CLS Accredited Under Level 2 Bat Licence: 2023-11064-CL18-BAT
Assessment Period:	1 st December 2021
Limitations:	This original PEA did not include detailed surveys of protected species. Preliminary ecological appraisals assess likely presence of species on a site and recommend follow-up survey work, management and mitigation as appropriate. The applicant has confirmed that there are no significant changes to site conditions since the PEA was undertaken.
Reliance:	Information, including any survey data, contained within this report must only be relied upon for a maximum period of 18 months from the date of the report.

**Fig. 2.1 Land at Oaklands Back Barn, Kent
(TQ 659 638)**

Location of study site.



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3. Aim and Objectives

3.1 Aim

The aim of this report is to ensure that there is minimal impact on ecological features during construction and post implementation.

3.2 CEMP: Biodiversity Objective

The CEMP: Biodiversity is a dynamic document reviewing conditions on site as they change during construction. It has been developed to avoid, minimize and mitigate against any construction effects on the environment and surrounding community. It should be read in conjunction with any previously prepared Construction Management Plan as well as any contractual documents or ecological reports prepared for the site.

The working area is defined as any area where there will be a requirement for permanent or temporary work to facilitate construction of the proposed scheme.

4. Legal Protection and Planning

The protection of animals and plants in the United Kingdom is governed by several different regulations and conventions. Principally, these include:

- The Wildlife & Countryside Act 1981 (as amended);
- The Habitats and Species Directive (92/43/EC) enacted through the Conservation of Habitats and Species Regulations 2010 (updated in 2017);
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Hedgerow Regulations 1997;
- The National Planning Policy Framework (as amended);
- Biodiversity Net Gain.

4.1 The Wildlife & Countryside Act

The Wildlife and Countryside Act was first introduced in 1981 and has since been amended and updated several times (e.g. Countryside and Rights of Way Act 2000).

The Wildlife and Countryside Act aims to balance conservation efforts with the needs of society and landowners, and provides a framework for the management and protection of wildlife and habitats in the UK.

The main provisions of the Wildlife and Countryside Act include:

- The protection of certain species of plants and animals, including birds, mammals, reptiles, and amphibians, from being killed, injured, or taken from the wild;
- The prohibition of certain methods of killing or taking animals, including the use of poisons, traps, and nets;
- The designation of Sites of Special Scientific Interest (SSSIs), which are areas of land that are of special scientific interest and are given legal protection to preserve their biodiversity and natural beauty;
- The regulation of hunting and killing of certain animals, such as deer, hares, and rabbits;
- The protection of hedgerows, trees, and other natural features in the countryside;
- The regulation of trade in endangered species and the control of invasive non-native species.

4.2 Conservation of Habitats and Species Regulations

The Conservation of Habitat and Species Regulations are designed to protect and conserve natural habitats and species of animals and plants that are of special importance. The regulations stem from the European Union's Habitats Directive, which was implemented in the UK through the Conservation of Habitats and Species Regulations 2010 (updated in 2017).

Under these regulations, certain habitats and species are afforded legal protection, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). These areas are designated based on their importance for conservation and biodiversity, and activities that may damage them are regulated or prohibited.

The regulations also require public authorities to conduct an appropriate assessment of any plans or projects that may have an impact on these designated areas. If it is determined that the plans or projects may have a significant effect on the habitats or species, they must be subject to further scrutiny and potential mitigation measures.

The Habitat Regulations apply to species in a number of ways. Firstly, certain species are designated as 'European Protected Species' (EPS), meaning they are afforded legal protection under the regulations.

The regulations prohibit any deliberate capture, killing or disturbance of EPS species, as well as damage to or destruction of their breeding or resting sites. In addition, public authorities must take steps to ensure that these species are protected, and that their habitats are maintained or improved.

The regulations also require public authorities to assess the potential impact of plans or projects on species and their habitats. If a project is likely to have a significant effect on a protected species, it may require a specific 'derogation' to be granted before it can proceed. This means that the public authority must demonstrate that the project is necessary for certain reasons, such as for public health or safety, and that there are no alternative solutions. Mitigation works that involve EPS usually requires successful application for an appropriate licence.

4.2.1 Habitats Regulations Assessment

Where a proposed development project is located within or close to an area designated or proposed for designation under the Birds and/or Habitats Directives (European sites; SAC/SPA) and/or the Ramsar Convention (Ramsar sites) an Appropriate Assessment under Regulation 61(1) of the Habitat Regulations may be required.

Regulation 63 states that:

“A competent authority, before deciding to undertake, or give any consent, permission, or other authorisation for a plan or project which:

(a) is likely to have significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of the site must make an appropriate assessment of the implications for the site in view of that site's conservation objectives”.

The decision as to whether an Appropriate Assessment is required or not is based upon an assessment of 'Likely Significant Effect' (LSE), which is recognised as being a statement that the anticipated effects of the proposal will be more than trivial. That is, the anticipated changes resulting from the proposal have the potential to impact on a designated, or proposed to be designated, European/Ramsar site. It does not automatically follow that an impact will occur, or that the impact would be significant, with a decision of LSE being purely an indication of the need for an Appropriate Assessment.

For more information see:

<https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

4.3 The Natural Environment and Rural Communities Act

The Natural Environment and Rural Communities Act (NERC) seeks to promote and protect biodiversity in the UK. The act recognizes the importance of biodiversity for the health and wellbeing of humans, as well as for the functioning of ecosystems and the provision of ecosystem services.

The NERC establishes the duty for public authorities to have regard for the conservation and enhancement of biodiversity in the exercise of their functions. This means that public authorities must consider the impact of their actions on biodiversity and take steps to mitigate any negative impacts.

The NERC also establishes measures to protect important wildlife habitats, such as Sites of Special Scientific Interest (SSSIs), and to promote sustainable management of natural resources. The act includes provisions for the creation of biodiversity strategies and the establishment of biodiversity targets.

In addition, the NERC provides for the management of invasive non-native species, which can have a negative impact on biodiversity by outcompeting native species and disrupting ecosystems.

4.3.1 Priority Habitats and Priority Species

Previous planning policy refers to UK Biodiversity Action Plan (BAP) habitats and species as being a material consideration in the planning process. Although such habitats and species remain material considerations in the planning process, they are now described as *Species and Habitats of Principal Importance for Conservation* in England, or simply priority habitats and priority species. The list of habitats and species is still derived from Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. In 2007, a revised list was produced, following a 2-year review of UK BAP processes and priorities, which included a review of the priority species and habitats. Following the review, the list of UK BAP priority species increased from less than 600 to 1,150.

The UK BAP was succeeded by the 'UK Post-2010 Biodiversity Framework' in July 2012. The UK list of priority species, however, remains an important reference source and has been used to help draw up statutory lists of priority species in England, Scotland, Wales and Northern Ireland, as required under Section 41 of the Natural Environment and Rural Communities Act 2006 (England), Section 7 of the Environment (Wales) Act 2016, Section 2(4) of the Nature Conservation (Scotland) Act 2004, and Section 3(1) of the Wildlife and Natural Environment Act (Northern Ireland) 2011.

Note that as was previously the case when it was a BAP priority species, hen harrier continues to be regarded as a priority species although it does not appear on the Section 41 list.

4.4 The Hedgerow Regulations

The Hedgerow Regulations aim to protect important hedgerows in the countryside, which are an important feature of the UK's rural landscape and provide habitat for a range of wildlife.

Under the regulations, it is illegal to remove or destroy most countryside hedgerows without permission from the local planning authority. Hedgerows that are protected under the regulations are those that meet certain criteria, including age, length, and species composition. The regulations also require that new hedgerows are planted to replace those that are removed, to ensure that there is no net loss of hedgerow habitat.

The Hedgerows Regulations seek to strike a balance between the protection of important hedgerows and the needs of farmers and landowners. The regulations recognize that hedgerows can provide important functions for agriculture, such as acting as windbreaks and providing shelter for livestock, and allow for certain exemptions for hedgerow removal in certain circumstances.

4.5 The National Planning Policy Framework

The National Planning Policy Framework (NPPF) is a document in the UK that sets out the government's planning policies and guidance for local planning authorities. The NPPF was first introduced in 2012 and has since been updated several times.

The main provisions of the NPPF include:

- The promotion of sustainable development, which balances economic, social, and environmental considerations;
- The protection of the natural environment, including biodiversity, landscapes, and heritage assets;
- The promotion of sustainable transport and the reduction of greenhouse gas emissions;
- The promotion of high-quality design and the provision of affordable housing;
- The encouragement of healthy communities and the provision of infrastructure, such as schools and healthcare facilities;
- The promotion of economic growth and the provision of employment opportunities;
- The NPPF provides guidance to local planning authorities on how to make planning decisions that are consistent with the government's planning policies. The document aims to ensure that planning decisions are made in a transparent and consistent manner, and that they reflect the needs of local communities.

For more information see:

<https://www.gov.uk/government/publications/national-planning-policy-framework--2>

4.6 Biodiversity Net Gain

National policy sets out that planning should provide biodiversity net gains where possible. National Planning Policy Framework Paragraphs 170(d), 174(b) and 175(d) refer to this policy requirement and the Natural Environment Planning Practice Guidance (PPG) provides

further explanation on how this should be done. Delivering net gain is also referred to in the National Infrastructure Commission's Design Principles, National Policy Statements and the National design guide.

Biodiversity net gain (BNG) is a strategy to develop land and contribute to the recovery of nature. It is a way of making sure the habitat for wildlife is in a better state than it was before development. The Environment Act sets out the following key components of mandatory biodiversity gain:

- Amends Town & Country Planning Act (TCPA);
- Minimum 10% gain required calculated using the Biodiversity Metric & approval of a biodiversity gain plan;
- Additional gains may be requested by local planning authority;
- Habitat secured for at least 30 years via planning obligations or conservation covenants;
- Delivered on-site, off-site or via a new statutory biodiversity credits scheme;
- National register for net gain delivery sites.

Developers are required to leave development sites better off for biodiversity than when the development is completed. The UK government is proposing to sell biodiversity credits to developers if the required biodiversity net gains cannot be achieved on-site or through the off-site market. Private landowners can help deliver these gains for both biodiversity and sometimes other ecosystem services.

For more information see:

<https://www.local.gov.uk/pas/topics/environment/biodiversity-net-gain>

The threshold for developments that must implement BNG include those that will affect priority habitats and/or projects that will affect an area greater than 25 m² of non-priority habitat and/or 5 or more meters of linear habitat (e.g. hedgerow).

Developments exempt from BNG include the following:

- Developments below the threshold;
- Householder applications;
- Self-build and custom build applications;
- Biodiversity gain sites;
- High speed rail transport network.

For more information that includes detailed definitions of exempt activities see:

<https://www.gov.uk/guidance/biodiversity-net-gain-exempt-developments>

4.7 Species Protections

Species receive legal protection under different legislation that may prohibit sale, disturbance and/or killing/injury. The following is a summary of some of the species/groups that are most frequently impacted by development related projects.

4.7.1 Plants

A number of plant species are protected under Section 13 of the amended Wildlife and Countryside Act. It is an offence to intentionally pick, uproot or destroy any wild plant listed in Schedule 8 of the Act. The list includes both higher plants including several of the rarer orchids and lower plants including several mosses and lichens.

4.7.2 Birds

All wild birds (birds in a wild state resident in or visiting Great Britain) and their nests and eggs are protected under the Wildlife & Countryside Act. Particular emphasis is given to the protection of breeding birds. With certain exceptions, it is an offence to intentionally kill, injure or take wild birds, take, damage or destroy the nest of wild birds while in use or being built, take or destroy the eggs of wild birds, disturb wild birds listed in Schedule 1 when nest building or at a nest containing eggs or young, or disturb dependent young of wild birds.

4.7.3 Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations and Schedule 5 of the Wildlife and Countryside Act. It is an offence for anyone to intentionally kill, injure or handle a bat, to possess a bat (whether live or dead), deliberately disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter.

4.7.4 Reptiles

All native reptiles are listed on Schedule 5 of the Wildlife and Countryside Act. It is an offence for anyone to intentionally kill or injure a so-called 'widespread' reptile species (viviparous lizard, slow-worm, grass snake or adder), or sell or offer for sale without a licence.

The sand lizard and smooth snake, their breeding sites or resting places (any structure that may offer refuge) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations. It is an offence for anyone intentionally to kill, injure or handle either of these two species, to possess an animal (whether live or dead), deliberately disturb a sheltering animal, or sell or offer an animal for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by sand lizards and smooth snakes for shelter.

4.7.5 Amphibians

All native amphibians are listed on Schedule 5 of the Wildlife and Countryside Act. It is an offence for anyone to sell or offer for sale any native amphibian species without a licence.

The great crested newt and natterjack toad, their breeding sites (typically ponds) or resting places (typically a terrestrial habitat that offers refuge) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations. It is an offence for anyone to intentionally kill, injure or handle either of these two species, to possess an animal (whether live or dead), deliberately disturb a sheltering animal, or sell or offer an animal for sale

without a licence. It is also an offence to damage, destroy or obstruct access to any place used by natterjack toads or great crested newts for shelter.

4.7.6 Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992, which makes it illegal to kill, injure or take badgers or to interfere with a badger sett. The term 'badger sett' is normally understood to mean the system of tunnels and chambers, in which badgers live, and their entrances and immediate surrounds. The 1992 Act specifically defines a sett as "any structure or place which displays signs indicating current use by a badger".

4.7.7 Hazel Dormouse

Individual animals, their breeding sites or resting places (nests) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations and Schedule 5 of the Wildlife and Countryside Act. It is an offence for anyone intentionally to kill, injure or handle a dormouse, to possess a dormouse (whether live or dead), deliberately disturb a dormouse, or sell or offer a dormouse for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by dormice for shelter.

4.7.8 Beaver, Otter and Water Vole

Water voles receive full protection under Schedule 5 of the Wildlife & Countryside Act. It is an offence to deliberately, capture, injure or kill them or to damage, destroy or obstruct their breeding or resting places. It is also an offence to disturb them in their breeding or resting places. Otters and beavers are protected under the Conservation of Habitats and Species Regulations. It is an offence for anyone to intentionally kill, injure or handle these species, to possess an otter or beaver (whether live or dead), deliberately disturb an otter or beaver, or sell or offer one for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by otter or beaver for shelter.

4.7.9 Hedgehogs

Hedgehogs are protected against being killed or taken by certain methods under Schedule 6 the Wildlife and Countryside Act 1981.

4.7.10 Invertebrates

Some invertebrates including several species of mollusc, crustacean, beetle, cricket, butterfly and moth are protected under Schedule 5 of the Wildlife and Countryside Act against deliberate killing, injuring and taking. Other species receive partial protection under the same act (e.g. against taking for sale).

4.8 Ecological Zone of Influence

The ecological zone of influence (ZOI) is the area around a development project where ecological features might be affected by biophysical changes resulting from the project. This includes impacts during construction, operation, decommissioning, and restoration phases. The ZOI considers the type of project, the sensitivity of ecological features, project activities, environmental processes, and regulatory guidelines. It is a dynamic concept, regularly updated based on new information and project progression.

It can sometimes be useful to review some ecological data outside of the ecological zone of influence. For example, species records collected from a wider area may provide insights into likely occupancy within the ecological zone of influence.

For the purposes of this report the ZOI has been defined according to the following criteria:

4.8.1 Small Development Projects

Examples: single-family homes, small commercial buildings, minor road expansions.

Area: Red line application areas are usually up to 1 Ha.

ZOI Distance: Up to 500 m.

4.8.2 Medium Development Projects

Examples: Residential developments with multiple units, small industrial facilities, moderate road construction.

Area: Red line application areas are typically between 1 and 10 Ha.

ZOI Distance: Up to 5 km.

4.8.3 Large Development Projects

Examples: large industrial complexes, major highways, extensive urban developments, airports.

Area: Red line application areas are typically greater than 10 Ha.

ZOI Distance: Can be up to 50 km or more.

5. Desktop Study

5.1 MAGIC Geographic Information System

<http://magic.defra.gov.uk>

5.1.1 Habitat Designations

Information available through MAGIC indicates that habitat the proposed development site is bordered by deciduous woodland.

Other habitats located nearby include:

- Ancient and semi-natural woodland.

5.1.2 Statutory Designated Areas

Information available through MAGIC indicates that land within the proposed development site is located within the Kent Downs Area of Outstanding Natural Beauty.

Other statutory designated sites located nearby include:

- Halling To Trottiscliffe Escarpment SSSI;
- North Downs Woodlands SAC;
- Houlder and Monarch Hill Pits, Upper Halling SSSI.

5.1.3 Non-statutory Designated Areas

The locations of nearby designated areas are illustrated in Appendix II.

Information available through MAGIC indicates that land within the proposed development site has no specific designations associated with it.

5.1.4 Site of Special Scientific Interest Impact Risk Zone

Natural England has created a tool that is accessed via MAGIC to determine the risk of development impact on designated areas (including SSSIs, SACs, SPAs and Ramsar sites). Available information indicates that the proposed development **is located** within a SSSI risk zone.

The SSSI risk tool provides guidance on when the Local Planning Authority should consult Natural England. Natural England will then provide advice on any potential impacts and how these might be avoided or mitigated.

5.1.5 European Protected Species Licences

Information available via MAGIC reveals that no EPS mitigation licences have been issued for works within 2 km of the proposed development site. EPS mitigation licences have been issued for common pipistrelle bat and brown long-eared bat within 5 km of the proposed development site.

5.1.6 Great Crested Newt Class Survey Licence Returns

Information available via MAGIC reveals that great crested newt has not been recorded within 5 km of the proposed development site.

5.2 Kent Landscape Information System (KLIS)

<https://webapps.kent.gov.uk/KCC.KLIS.Web.Sites.Public/Default.aspx>

5.2.1 Kent Habitat Survey 2012

The 2012 Kent Habitat Survey characterised the study area as (1) improved grassland and (2) broadleaved, mixed and yew woodland.

5.2.2 Local Wildlife Sites

Information available through KLIS indicates that land within the site forms part of Strawberry Hill, Pasture & Woodland, Meopham LWS.

Other local wildlife sites located nearby include:

- Luxon Wood, Great Buckland;
- Pasture and woods south of Luddesdown.

5.3 Records Searches

Available records for protected species have been obtained from Kent Reptile and Amphibian Group.

Note that the availability of records is directly related to survey effort. A lack of records does not necessarily indicate the absence of protected species.

5.3.1 Kent Reptile and Amphibian Group (KRAG)

KRAG is one of the primary data holders for reptiles and amphibians in Kent. Information supplied by KRAG indicates that common frog and common toad have been recorded from the local area. The closest great crested newt record was a historical observation reported from a site located 3.59 km to the south.

Viviparous lizard, slow-worm, grass snake and adder have also been recorded from the local area. The closest reptile record is for adder, recorded 100 m to the south.

6. Proposed Development and Ecological Constraints

6.1 Site Location

The proposed development site is located within a rural area in the North Kent Plain Natural Area (English Nature, 1998). The site is accessed directly from Leywood Road. This CEMP: Biodiversity concerns activities associated with conversion of the barn and potential disturbance to its immediate surrounds.

6.2 Proposed Development

The proposal is to convert an existing barn into a holiday let with associated access and services. The red line around the barn will be the curtilage for the building so there will be no garden. The development will include provision of electric and waste water services to the building. The latter will include a small sewage treatment unit, positioned between the barn and the road.

The overall site boundary is approximately 1.29 Ha.

The extent of the proposed development area within the site is illustrated in Fig. 6.1.

Anticipated start date: November 2024

Anticipated completion date: January 2025 (building works only)

Anticipated completion date: tbd (Installation of services etc)

6.3 Ecological Baseline

The site and immediate zone of ecological influence was surveyed in December 2021. The ecological protection is based on recommendations made in the following documentation:

- Preliminary Ecological Appraisal (Calumma, December 2021).

The Site is not covered by any statutory or non-statutory ecological designations.

Land within the site ownership forms part of Strawberry Hill, Pasture & Woodland, Meopham Local Wildlife Site. The proposed barn works are outside of the LWS area. The site is also located close to other designated sites the closest of which is situated on the opposite side of Leywood Road.

There are no tree preservation orders associated with the site. No tree survey information is available.

The PEA describes the site as improved grassland, bordered by deciduous woodland. Grassland within the site appears to be maintained by livestock grazing. Trees present within the woodland include: oak (*Quercus robur*), field maple (*Acer campestre*), holly (*Ilex aquifolium*), hornbeam (*Carpinus betulus*), sweet chestnut (*Castanea sativa*), silver birch (*Betula pendula*), hawthorn (*Crataegus monogyna*) and hazel (*Corylus avellana*).

A single open fronted barn (B1) is located within the application area.

The PEA advises that protected species potential at the application site includes:

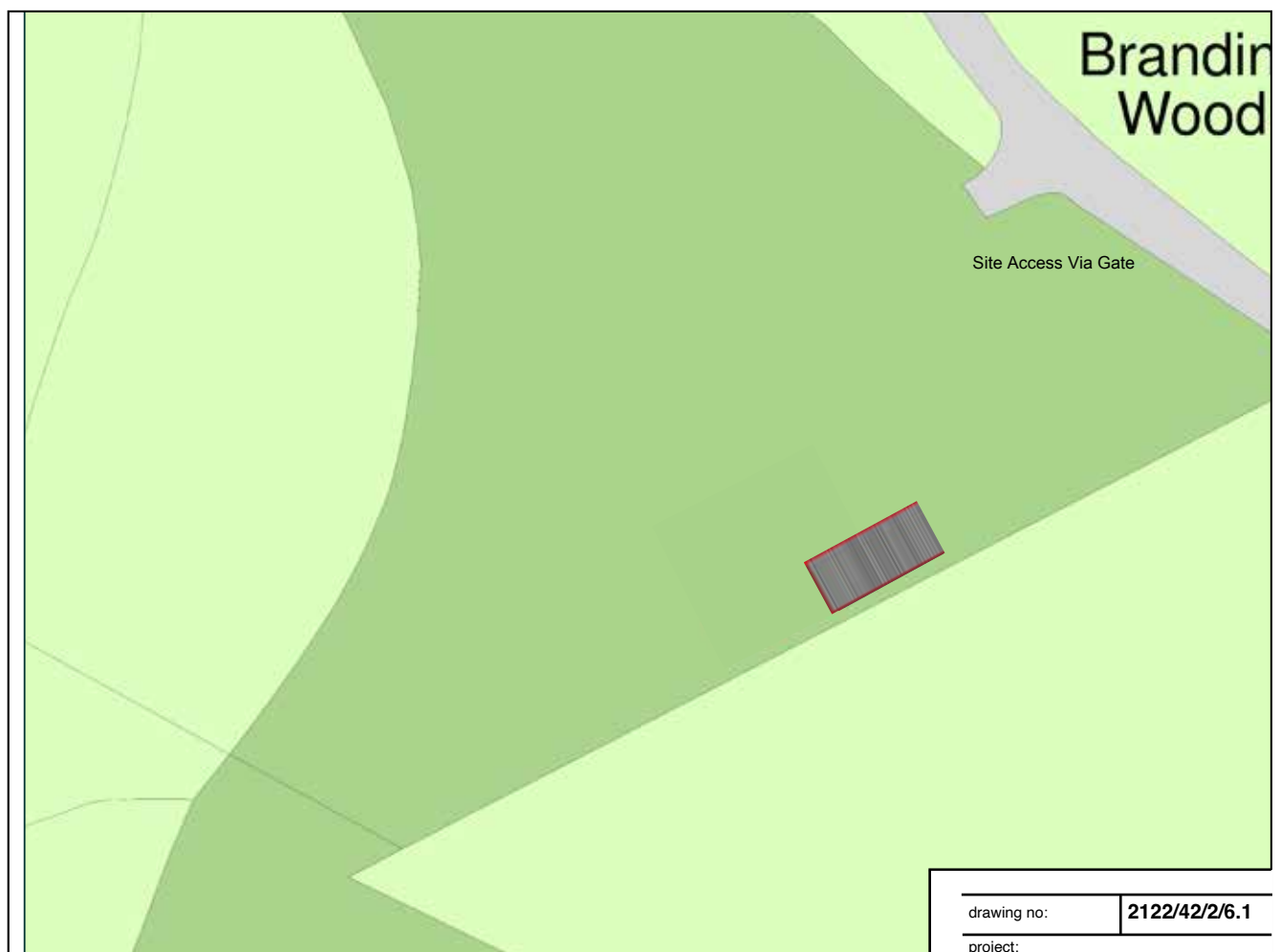
- Nesting birds;
- Foraging/commuting bats;
- Tree roosting bats;
- Badgers;
- Dormouse;
- Hedgehog.

6.4 Summary of Ecological Enhancement Proposals

The PEA recommended that appropriate biodiversity enhancement measures be undertaken. Features proposed for inclusion include:

- Management of some grassland areas to promote a longer sward that is more structurally complex improving habitat suitability for invertebrates and reptiles;
- Specific management works to promote dormouse (could include coppicing within adjacent woodland and/or new woodland planting within the grassland field);
- Brash/log piles that provide shelter for invertebrates, reptiles and mammals (including dormouse);
- Bird nesting boxes;
- Bat roosting boxes.

Fig. 6.1 Proposed Development Area



drawing no: 2122/42/2/6.1

project:
Oaklands Back Barn

title:
Development Area

scale: **N.T.S.** date: **Sep 2024**



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7. Control of Works

To ensure that works are undertaken in accordance with this document the following control measures will be used:

- The application of Natural England licences, where applicable. Currently, there are no requirements for a Protected Species licence.
- The appointment of an ecological management team, this will require an ecological clerk of works during any proposed vegetation clearance or the use of toolbox talks to inform and prepare contractors.
- The use of ecological permits where required.
- The identification of ecologically sensitive areas.

7.2.1 Legislative Control

The existing information available for the site suggests that a licence from Natural England will not be required in order to execute the work.

7.2.2 Ecological Permits

Ecological permits will be used to ensure the co-ordination and control of all operations that could impact upon the ecology of sensitive areas. Table 6.1 provides a summary of responsibilities.

Permit/report	Responsibility	When Issued
Ecological permit	Site manager or Ecological clerk of works (contractor's responsibility)	Prior to works commencing
Ecological certificate	Ecological clerk of works (contractor's responsibility)	Once an activity has been completed or working in a designated area finished a certificate to confirm it has been carried out to an acceptable standard will be signed.
Rectification notices	Site manager or Ecological clerk of works (contractor's responsibility)	Issued by the ECoW or Site manager to the site manager for implementation of action required.
Daily record sheets	Site manager and Ecological clerk of works (contractor's responsibility)	Activities and observations recorded on a Daily Record Sheet

Table 7.1. Responsibilities related to control of works.

7.2.3 Ecologically Sensitive Areas

A summary of predicted impacts and control of works is outlined in Table 7.2.

Feature	Predicted Impact	Protection
Designated Sites		
The site is located close to areas designated for their nature conservation interest.	No direct or indirect disturbance to locally designated sites is predicted.	There is currently no requirement to protect nearby designated sites from the proposed development.
Semi-natural Habitats		
Deciduous woodland	No direct or indirect disturbance to deciduous woodland is predicted	There is currently no requirement to protect nearby semi-natural habitats from the proposed development.
Protected Species		
Nesting Birds	Direct impact on building B1 during construction. Risk of accidental disturbance to nearby woodland and/or trees.	No vegetation clearance will be carried out during bird nesting season. Where this is not possible, great care will be taken to avoid damage to nesting birds. In addition, should there be any signs of nesting birds at the time of demolition/ground clearance advice will be sought from a qualified ecologist. Enhancement for birds will be part of the proposed scheme.
Foraging/commuting bats	There may be some temporary indirect disturbance to foraging/commuting bats during construction.	Proposals will take place during daylight hours and avoid lighting during construction and implementation. A European Protected Species licence for Bats in respect of development is not currently required. Enhancement for bats will be part of the proposed scheme.
Tree roosting bats	Risk of accidental disturbance to nearby woodland and/or trees.	Works will avoid disturbance to woodland and trees.
Badgers	There may be some temporary disturbance to foraging/commuting badgers during construction.	No digging is currently planned. Any required trenches will not be left open overnight. Where this cannot be avoided, a mammal ramp will be provided to permit exit.
Dormouse	Risk of accidental disturbance to nearby woodland and/or trees.	Works will avoid disturbance to woodland and trees.
Hedgehog	There may be some temporary disturbance to foraging/commuting hedgehogs during construction.	No digging is currently planned. Any required trenches will not be left open overnight. Where this cannot be avoided, a mammal ramp will be provided to permit exit.

Table 7.2. Summary of predicted impacts and control of works.

8. Project Roles, Responsibilities and Contacts

To ensure that the works are undertaken in accordance with the CEMP: Biodiversity recommendations have been made with regard to personnel responsibility. The following appointments will be made:

- Person responsible for environmental issues;
- Ecological Clerk of Works or Site Manager.

The above persons must ensure that all site staff are appropriately briefed on ecological issues within and surrounding the site.

Position	Responsibility	Name	Contact Details
Site Manager	Oversees the construction activities.	Mr. Roy Bedford	tbc
Site Supervisor	Helps project manager to plan works.	Mr. Roy Bedford	tbc
Ecological Clerk of Works	Oversees ecological works.	To be agreed with the contractor.	tbc

Table 8.1. Project roles, responsibilities and contact details.

8.1 Ecological Clerk of Works (EcoW) and Site Manager

The Site Manager will be the first point of contact and will be responsible for the following:

- Providing guidance for the site team on how to deal with ecological matters.
- Ensuring the site team and sub-contractors comply with ecological site protocols.
- Providing information on site induction briefings.
- Approving all method statements and ensuring that any relevant site environmental protocols are appended and adhered to.
- Supporting the ecological clerk of works.

Either an ecological clerk of works or the site manager will be a point of contact during the works and will be responsible for the following:

- Carrying out checks to ensure the site team and the sub-contractors comply with site protocols.
- Carrying out ecological watching briefs as required during the works.
- Carrying out inspections of ecological protection and mitigation, lighting restrictions and site management.
- Reporting any identified issues to the site manager.

8.2 Training, Awareness and Competency

The small scale of the proposed development means that an overall CEMP is not currently being prepared. However, if a Construction Management Plan will subsequently be available for the site, this and the CEMP: Biodiversity will be referred to for how environmental training, awareness and competency will be delivered and assessed throughout the project, to ensure the relevant aspects of the CEMP: Biodiversity are communicated to the project team and front line staff (including contractors and subcontractors). This may include:

- Pre-commencement Meeting;
- Site Environment Induction;
- Daily Pre-Start Meetings;
- Environmental Toolbox Talks;
- Incident bulletins;
- Sub-contractors kick-off meeting;
- Contractor and client site kick-off meeting.

8.3 Risk Management

The environment risks and controls that are likely to be identified within contractual documents for the construction phase. These can include a Construction Management Plan and other relevant documents as required. This CEMP: Biodiversity document provides the ecological proponent to this risk.

The Site manager will engage with the Environment team early during this project risk assessment process through face-to-face meetings on site to ensure the site-specific risks are looked at early on and dealt with appropriately. The construction management plan should include the following:

- Vegetation;
- Terrestrial Fauna;
- Air Quality;
- Waste;
- Pollution Prevention & Hazardous Materials Storage;
- Dust, Noise & Vibration;
- Noxious Substances.

9. Implementation

The following section provides details of ecological protection works and how these will be adhered to. Initially, workers will be given a site briefing via a toolbox talk during which an explanation of protective measures on site is given as well as protection of wildlife in general. The EcoW or Site Manager will supervise works affecting ecological issues such as tree protection, vegetation clearance and precautionary mitigation for protected species.

Ecological protection has been divided into types as follows:

- Tree protection;
- Nesting bird mitigation;
- Bat foraging sensitivity;
- Reptile precautionary mitigation;
- Badger precautionary mitigation;
- Dormouse precautionary mitigation;
- Invasive non-native species (INNS).

Method statements for each element of ecological protection is provided below.

Where appropriate the construction working area will be shown on a Construction Management Plan and a Construction Site Layout Plan to be completed for the detailed design. These will show the boundary of the site and the various requirements for fencing, access, gates, resurfacing and planting. Proposed excavations will be shown on a plan to evaluate any risk to nearby trees. Once available, this will show excavations near trees being retained.

9.1 Invasive non-native Species

Currently, there are no species identified as controlled waste or invasive species within the proposed site. Where such species are recorded appropriate action following best practice will be taken to minimise their spread to the wider environment.

9.2 Environmental Issues

If a full Construction Management Plan is required for the scheme the following requirements may need to be detailed. These environmental issues fall outside of the scope of the CEMP: Biodiversity.

9.2.1 Air Quality

The works have the potential to affect air quality as a result of:

- Dust from construction activities;
- Exhaust emissions from plant, and on and off site construction vehicle movements.

Use of plant is likely to be minimal. All vehicles should be modern and well maintained.

9.2.2 Waste

All waste will be managed in accordance with the relevant guidelines. There will be no 'waste' building materials, i.e. from demolition. Only clean soils, which will as far as possible be retained on site through cut and fill. Where excess soil is generated, good topsoil will be retained and subsoils removed for recycling for use as fill/subsoils elsewhere by the groundworker.

9.2.3 Storage of Fuel, Oil and Building Materials

The storage of fuel or oils on site as well as chemicals or paint stored are not anticipated. If such storage is required it will be dealt with in the Construction Management Plan.

9.2.4 Particulate Matter, Dust and Noise

Dust and noise will be managed in accordance with the relevant guidelines. All works will adhere to Local authority 'Code of Practice on Control of Pollution and Noise from Construction sites' and the British Standard 5228-2: 2009 + A1:2014 parts one and two - Noise in relation to construction. Further details should be provided in the Construction Management Plan or similar (if required).

9.2.5 Pollution Prevention and Hazardous Materials Storage

It is currently not anticipated that there will be any major hazardous or extraordinary works in terms of chemicals, and no such chemicals are expected to be stored on site (to be confirmed by contractual documents).

Method Statement 1 Tree Protection			
Project Name	Oaklands Back Barn	Anticipated Start Date:	November 2024
Site Location	Harvel	Anticipated finish Date:	January 2025 (works to building)
Personnel required	Site Manager		
Description of work	Superficial works to existing building, to make it airtight, clad and put in windows and doors. Services will be installed at a later time and subject to a follow-up application.		
Purpose	To avoid damage to root systems		
Method	The client has confirmed that no trees will be felled as part of the proposals. No digging will be undertaken for footings and services will not be provided to the building at this stage Any subsequent work to provide services will be subject to additional safeguard. All required tree protection, work to trees and any work in the vicinity of trees is to accord with the relevant sections of the following standards: BS 3998 - Recommendations for Tree Work. BS 4428 - Code of practice for general landscape operations. BS 5837 - Guide for Trees in Relation to Construction. BS 1722 - Fences.		
Completion	Implementation of correct procedure as verified by Site Manager marks completion.		
Reporting requirements	None anticipated. Sign off by Site Manager.		
Monitoring	Monitor site condition until completion of construction.		

Method Statement 2 Nesting Bird Mitigation			
Project Name	Oaklands Back Barn	Anticipated Start Date:	November 2024
Site Location	Harvel	Anticipated finish Date:	January 2025 (works to building)
Personnel required	Site Manager		
Description of work	Superficial works to existing building, to make it airtight, clad and put in windows and doors. Services will be installed at a later time and subject to a follow-up application.		
Purpose	To avoid harm to nesting birds, their eggs and young.		
Method	All works will be undertaken between November to January; outside of the bird nesting season.		
Completion	Implementation of correct procedure as verified by Site Manager marks completion.		
Reporting requirements	None anticipated. Sign off by Site Manager.		
Monitoring	Monitor site condition until completion of construction. If risk of over-run consult ECoW.		

Method Statement 3 Bat Sensitive Lighting and Suitable Construction Strategy			
Project Name	Oaklands Back Barn	Anticipated Start Date:	November 2024
Site Location	Harvel	Anticipated finish Date:	January 2025 (works to building)
Personnel required	Site Manager		
Description of work	Superficial works to existing building, to make it airtight, clad and put in windows and doors. Services will be installed at a later time and subject to a follow-up application.		
Purpose	To avoid adverse impacts on nocturnal wildlife including bats.		
Method	No artificial lighting will be employed during construction works. If lighting for the completed building is required, this will be low or zero UV, which is preferred to reduce attraction of insects to lighting and therefore to reduce the attraction of foraging bats to these areas. The Bat Conservation Trust's Bats and Lighting in the UK guidance will be adhered to in the lighting design. Any subsequent lighting will be directed away or shielded from any adjacent hedgerows, woodland or trees, and any installed bat boxes to allow bats safe foraging routes where they will not be visible to predators.		
Completion	Implementation of correct procedure as verified by Site Manager marks completion.		
Reporting requirements	None anticipated. Sign off by Site Manager.		
Monitoring	Monitor site condition until completion of construction. If lighting requirements change consult ECoW.		

Method Statement 4 Precautionary Reptile Mitigation			
Project Name	Oaklands Back Barn	Anticipated Start Date:	November 2024
Site Location	Harvel	Anticipated finish Date:	January 2025 (works to building)
Personnel required	Site Manager		
Description of work	Superficial works to existing building, to make it airtight, clad and put in windows and doors. Services will be installed at a later time and subject to a follow-up application.		
Purpose	To avoid adverse impacts on reptiles.		
Method	All grassland vegetation within working area will be kept short prior to and during construction works. Disturbance to areas outside of the working area will be avoided.		
Completion	Implementation of correct procedure as verified by Site Manager marks completion.		
Reporting requirements	None anticipated. Sign off by Site Manager.		
Monitoring	Monitor site condition until completion of construction. If areas identified as sensitive will be disturbed consult ECoW.		

Method Statement 5 Precautionary Badger Mitigation			
Project Name	Oaklands Back Barn	Anticipated Start Date:	November 2024
Site Location	Harvel	Anticipated finish Date:	January 2025 (works to building)
Personnel required	Site Manager		
Description of work	Superficial works to existing building, to make it airtight, clad and put in windows and doors. Services will be installed at a later time and subject to a follow-up application.		
Purpose	To avoid adverse impacts on badgers and other mammals.		
Method	No foundations or other works that require digging are currently proposed. Disturbance to areas outside of the working area will be avoided. If trenches are subsequently required, any trenches left open overnight will include a means of escape for any mammals that may fall in. Any open excavation will be inspected before works commence in the morning. If a trapped mammal is encountered further advice will be sought from the ECoW.		
Completion	Implementation of correct procedure as verified by Site Manager marks completion.		
Reporting requirements	None anticipated. Sign off by Site Manager.		
Monitoring	Monitor site condition until completion of construction. If trenches subsequently required consult ECoW.		

Method Statement 6 Precautionary Dormouse Mitigation			
Project Name	Oaklands Back Barn	Anticipated Start Date:	November 2024
Site Location	Harvel	Anticipated finish Date:	January 2025 (works to building)
Personnel required	Site Manager		
Description of work	Superficial works to existing building, to make it airtight, clad and put in windows and doors. Services will be installed at a later time and subject to a follow-up application.		
Purpose	To avoid adverse impacts on dormouse.		
Method	No woodland or scrub is proposed for disturbance. Disturbance to areas outside of the working area will be avoided. If disturbance to woodland or scrub (including bramble) is subsequently required, further advice will be sought from the ECoW.		
Completion	Implementation of correct procedure as verified by Site Manager marks completion.		
Reporting requirements	None anticipated. Sign off by Site Manager.		
Monitoring	Monitor site condition until completion of construction. If woodland or scrub subsequently proposed for disturbance consult ECoW.		

10. References

Calumma Ecological Services (2021) Preliminary Ecological Appraisal. Land at Oaklands Farm, Leywood Road, Harvel, Kent DA13 0UD.

Appendix I: Toolbox Talks

Source:

Calumma Ecological Services

Toolbox Talk Protected Species

TOOL BOX TALK PROTECTED SPECIES

WHY IS IT IMPORTANT?

Many species of plants and animals are classed as Protected Species and are protected under legalisation, for example;

- *The Wildlife and Countryside Act 1981*
- *Section 74 of The Countryside and Rights of Way Act 2000*
- *The Conservation Regulations 1994*
- *Protection of Badgers Act 1992.*

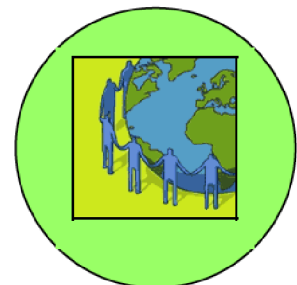
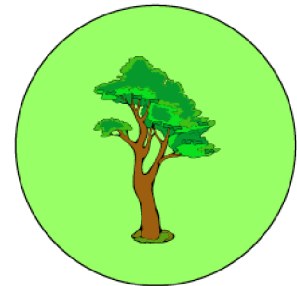
The main Protected Species to be aware of are; Bats, Otters, Badgers, Reptiles and Amphibians (adders; grass snakes; smooth snakes; sand lizards; common lizards; slow worms), Fish (spawning seasons), Nesting Birds. The fine for injuring, killing, possessing, selling or obstructing the access of a protected animal is currently £5000 per animal

Do	Don't
Protect habitats with fencing	Come into contact with the Protected Species – obtain advice and help
Ask your Supervisor if there are any Protected Species on site you need to be aware of	
Stop works immediately in the vicinity of any Protected Species	Disrupt any protected species or their habitats
Inform your Supervisor and Environmental Representative if you think you have discovered Protected Species	

QUESTIONS:

- Are the workforce aware of any Protected Species on the site in which they are working?
- Are the workforce aware of who to contact if any Protected Species are discovered?
-

NB: For further and more detailed information on any individual Protected Species please refer your Environmental Representative



CARING FOR THE ENVIRONMENT

Toolbox Talk Nesting Birds

DO

- ALWAYS Stop works immediately if you see nesting birds or evidence of nesting birds in the vicinity of the working area;
- ALWAYS Inform the Site Manager so that appropriate action can be taken;
- ALWAYS Take note of exclusion zones, which are in place;
- ALWAYS Take note of any signage displayed;
- ALWAYS Keep your eyes open and look out for signs of wildlife, which could be disturbed by the works;
- ALWAYS Ensure that the birds have all flown the nest and that the nest is abandoned before commencing works in the area;
- ALWAYS Obtain confirmation from the Site Manager regarding when you are able to start works again.

DO NOT

- DO NOT Kill, injure or take any wild birds;
- DO NOT Take, damage or destroy the nest of any wild bird while it is in use or being built;
- DO NOT Take or destroy the egg of any wild bird;
- DO NOT Use traps or similar to kill, injure or take wild birds;
- DO NOT Intentionally or recklessly disturb any wild bird;
- DO NOT Remove objects for a better look;
- DO NOT Continue works in the nesting area;
- DO NOT Carry out culling of pest species unlicensed.

EXCLUSION ZONE

Create a well-signed, physical exclusion zone from areas not being cleared.

Toolbox Talk Bats

There are 18 (17 breeding) species of bat in the UK and all are protected by law because so many bats are endangered, both UK and European legislation gives them complete protection they tend to return to the same roosts each year, so these sites are also protected whether the bats are present or not.

The most common UK bat is the Pipistrelle. It is only 40 mm long and weighs about 5 grams.

- Places where bats may be found include holes and cracks in trees, roofs and walls of houses and buildings, under bridges, underground in caves and old railway tunnels.
- Every building and mature tree is a potential bat roost. Smooth, stained areas may be found around the entrance to roosting sites.
- Look out for bat droppings – dark brown or black, about 4 to 8 mm in length. They look like mouse droppings but crumble easily, as they are made up of insect fragments. In well established roosts, droppings may be several centimetres deep.
- Other signs include a sharp characteristic odour and large numbers of moth wings discarded by feeding bats
- Bats can crawl into holes only 15 mm wide.

Why Protect Bats?

Avoid prosecution: it is a criminal offence for anyone without a licence to:

- Kill, injure or handle a bat;
- Possess a bat (whether alive or dead);
- Disturb a roosting bat; damage;
- Destroy or obstruct access to any place used by bats for shelter, whether they are present or not;
- Breaking the law can lead to an unlimited fine and/or up to six months in prison.

DO

If a bat or a bat roost is found on site, stop all works in the area IMMEDIATELY and inform a line manager.

DO NOT

Try to touch or handle a bat. They are very delicate and this can cause them serious harm – it is breaking the law.

Appendix II: Bats and Lighting

Source:

Bat Conservation Trust and Institution of Lighting Engineers

Summary of Requirements

The two most important features of street and security lighting with respect to bats are:

1. The UV component. Low or zero UV installations are preferred to reduce attraction of insects to lighting and therefore to reduce the attraction of foraging bats to these areas.
2. Restriction of the area illuminated. Lighting must be shielded to maintain dark areas, particularly above lighting installations, and in many cases, land adjacent to the areas illuminated. The aim is to maintain dark commuting corridors for foraging and commuting bats. Bats avoid well lit areas, and these create barriers for flying bats between roosting and feeding areas.

UV characteristics:

Low

- Low pressure Sodium Lamps (SOX) emit a minimal UV component
- High pressure Sodium Lamps (SON) emit a small UV component
- White SON, though low in UV, emit more than regular SON

High

- Metal Halide lamps emit more UV than SON lamps, but less than Mercury lamps
- Mercury lamps (MBF) emit a high UV component.
- Tungsten Halogen, if unfiltered, emit a high UV component
- Compact Fluorescent (CFL), if unfiltered, emit a high UV component.

Variable

- Light Emitting Diodes (LEDs) have a range of UV outputs. Variants are available with low or minimal UV output.

Glass glazing and UV filtering lenses are recommended to reduce UV output.

Street lighting

Low-pressure sodium or high-pressure sodium must be used instead of mercury or metal halide lamps. LEDs must be specified as low UV. Tungsten halogen and CFL sources must have appropriate UV filtering to reduce UV to low levels.

Lighting must be directed to where it is needed and light spillage avoided. Hoods must be used on each lamp to direct light and contain spillage. Light leakage into hedgerows and trees must be avoided.

If possible, the times during which the lighting is on overnight must be limited to provide some dark periods. If the light is fitted with a timer this must be adjusted to reduce the amount of 'lit time' and provide dark periods.

Security and domestic external lighting

The above recommendations concerning UV output and direction apply. In addition:

- Lighting should illuminate only ground floor areas - light should not leak upwards to illuminate first floor and higher levels;
- Lamps of greater than 2000 lumens (150 W) must not be used;
- Movement or similar sensors must be used - they must be carefully installed and aimed, to reduce the amount of time a light is on each night;
- Light must illuminate only the immediate area required, by using as sharp a downward angle as possible;
- Light must not be directed at or close to bat roost access points or flight paths from the roost - a shield or hood can be used to control or restrict the area to be lit;
- Wide angle illumination must be avoided as this will be more disturbing to foraging and commuting bats as well as people and other wildlife;
- Lighting must not illuminate any bat bricks and boxes placed on buildings, trees or other nearby locations.



Calumma Ecological Services is an independent wildlife consultancy specialising in the applied conservation of amphibians and reptiles. *Calumma Ecological Services* offers a full range of specialist services to private companies, local authorities, government agencies, wildlife organisations and members of the public.

Calumma Ecological Services always works to industry good practice

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