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Bat & Barn Owl Survey Report

Site Name

Brighthams Farm

Client

Rose Banks

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About the Author

This report has been prepared by Holly Waters, a Senior Ecologist at The Ecology Co-op, with 5 years of experience. She has a Level 2 bat and Level 1 great crested newt survey licence and has prepared numerous reports for protected species. As an Associate member of the Chartered Institute for Ecology and Environmental Management (CIEEM), she is bound by their code of professional conduct.

About the Reviewer

This report has been reviewed by Kate Priestman, who is a Principal Ecologist with over twenty years' experience. Kate has undertaken extensive survey work and reporting, encompassing a breadth of deliverables, and prepared European Protected Species licences for numerous schemes. As a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and a Chartered Environmentalist (CEnv), she is bound by CIEEM's code of professional conduct.

Report Summary

Purpose	The Ecology Co-op was commissioned by Rose Banks to undertake bat emergence, bat hibernation and barn owl surveys at Brighthams Farm, further to a proposal to convert the buildings to residential use.
Context	A previous survey of the site identified bat potential associated with internal features of the barns and roof tiles, and identified bat droppings within Building 2 (B2). A barn owl box was also identified to be present in Building 1 (B1). In line with Bat Conservation Trust Guidelines, two bat hibernation surveys and three bat emergence survey visits were carried out in 2026 to determine the presence or likely absence of roosting and hibernating bats and evaluate the conservation importance of the site for bats. A barn owl survey was also undertaken to understand the use of the box by this species.
Key findings	No bats were identified during the hibernation surveys. A single common pipistrelle was identified to be roosting within B2 on the first survey, and four common pipistrelles were identified roosting in a separate area in B2 on the third survey. The barn owl survey identified presence of four juvenile barn owls, which were also seen during all bat emergence surveys.
Interpretation	The surveys have identified a brown long-eared bat transitional roost and two common pipistrelle day roosts within B2, and a barn owl nest within B1.
Recommendations	As the proposed development includes the conversion of the buildings to residential use, the modification or destruction of the roost features used by bats cannot be avoided, and in the absence of mitigation, this could potentially result in harm to individual bats. Therefore, a European Protected Species licence will be required for the development to legally proceed. Based on the results of the survey, this development will be eligible for adding to the 'Earned Recognition' bat licence issued by Natural England and held by certain qualified bat ecologists. Mitigation and compensation will also be required for the loss of a barn owl nest, along with precautionary timings of works for breeding birds.

CONTENTS PAGE

1 INTRODUCTION 5

1.1 Background 5
1.2 Purpose of the Report 5

2 LEGAL PROTECTION 5
3 METHODOLOGY 6

3.1 Limitations to Emergence Surveys 7

4 RESULTS 8

4.1 Bat Emergence Surveys 8
4.1.1 Survey Conditions 8
4.1.2 Bat Emergence Results 8
- *21st May 2026 ..... 8*
- *11th June 2026 ..... 8*
- *2nd July 2026 ..... 8*

4.2 Bat Hibernation Surveys 9
4.3 Barn Owl Survey 9

5 IMPACT ASSESSMENT AND MITIGATION RECOMMENDATIONS 10

5.1 Interpretation of Findings 10
5.2 Potential Impacts 10
5.3 Outline Mitigation Measures 10
5.4 Barn Owls 11
5.5 Conclusions 13

APPENDIX 1 – LEGISLATION AND POLICY 14
APPENDIX 2 – DARKEST POINTS 15
APPENDIX 3 – EXAMPLES OF REPLACEMENT BAT ROOSTING FEATURES 16
APPENDIX 4 – REDUCING IMPACTS OF ARTIFICIAL LIGHT 17

1 INTRODUCTION

1.1 Background

The owners of Brighthams Farm intend to submit a planning application for a proposed development that involves the conversion of three barns to residential use. Full plans are not yet available.

The full address for the site is Brighthams Farm, Bines Road, Partridge Green RH13 8EQ. The central National Grid Reference for this site is TQ 1946 1790.

The Ecology Co-op undertook a bat scoping assessment of the existing buildings in November 2025[1], during which scattered brown long-eared *Plecotus auritus* bat droppings were identified within Building 2 (B2), and several features were identified to be suitable to support roosting and hibernating bats across Building 1 (B1) and B2.

The scoping assessment also identified the presence of a barn owl *Tyto alba* box within B1, and fresh pellets were found within the barn.

1.2 Purpose of the Report

In accordance with recommendations, bat emergence surveys were carried out by The Ecology Co-op between May and July 2026, led by Holly Waters, an Associate member of the Chartered Institute of Ecology and Environmental Management and licensed bat surveyor. Hibernation surveys were undertaken in January and February 2026 by Holly Waters and Owen Crawshaw, licensed bat surveyors. A barn owl survey was also undertaken in June 2026 by Owen Crawshaw, who holds a barn owl licence.

The purpose of this survey work was to determine presence of roosting bats and nesting barn owls, and where necessary prescribe further surveys and/or appropriate mitigation advice to inform the planning application for the proposed development at the site.

This survey and report were carried out at the request of Rose Banks.

2 LEGAL PROTECTION

Details of legislation and legal protection afforded to all species of British bats are given in Appendix 1.

The results of this survey will be used to determine the need for an appropriate mitigation strategy to ensure compliance with UK and EU wildlife legislation.

[1] The Ecology Co-op (2025). Bat Scoping Report *Brighthams Farm*, November 2025;l.

3 METHODOLOGY

3.1 Bat Surveys

Survey methods for hibernating and summer roosting bats followed those set out by the Bat Conservation Trust[2].

3.1.1 Hibernation Survey

An internal inspection of the barns was undertaken on two occasions in January and February 2026. The work involved the surveyor using a high-powered torch and endoscope to search for hibernating bats and/or evidence of roosting bats.

3.1.2 Emergence Surveys

Emergence surveys were undertaken on the 21st May 2026, 11th June 2026 and 2nd July 2026. Surveys focused on all aspects of B1 and B2, using surveyors and infra-red or thermal cameras positioned externally and internally. From these positions, all features potentially suitable for roosting bats could be observed.

The surveyors recorded any bat activity on or around the potential roosting entry/exit features identified during the scoping survey, using full spectrum handheld bat detectors to identify species through call frequencies. The bat calls were logged and recorded as sonograms for later confirmation of species where necessary.

The following equipment was used to support this survey:

- 3 x Echometer Touch 2 Pro detectors with Apple recording devices.
- 2x Pixfra A613 thermal cameras
- 2x Nightfox Nova night-vision cameras supported by infra-red torches
- 1x Nightfox Whisker night-vision camera supported by infra-red torches.

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

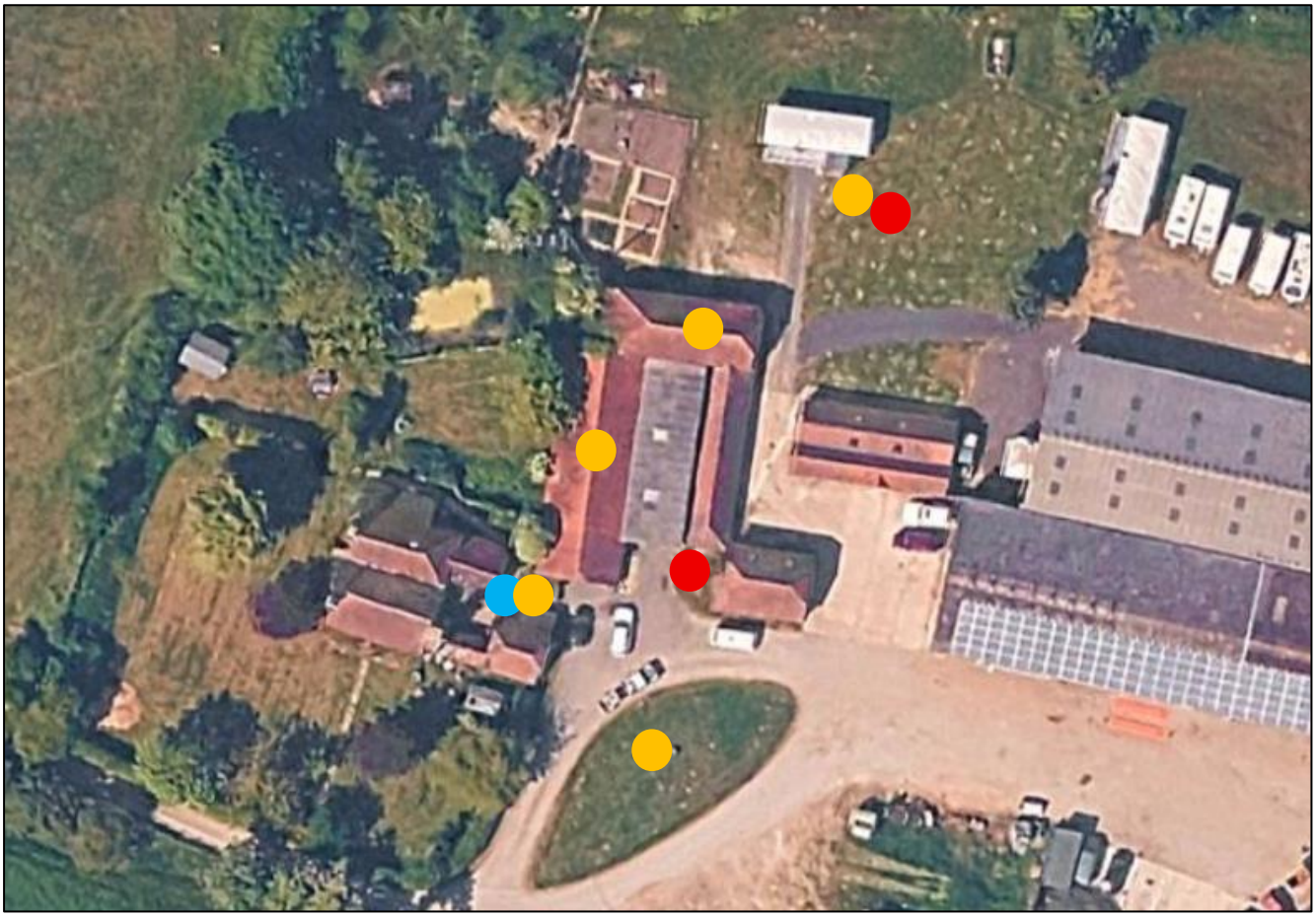


Figure 1. An aerial image of the site, showing the positions of surveyors (red dots) and night-vision cameras (orange dots), with the blue dot representing a surveyor on surveys 1 & 3, and a stand-alone bat detector on survey 2. Images produced courtesy of Google maps (map data ©2026 Google).

3.2 Barn Owl Survey

A barn owl survey was undertaken on the 1st June 2026 by Owen Crawshaw, a licenced surveyor, assisted by Ben Small. The owl box situated within B1 was inspected using a ladder and a torch. All barns proposed for conversion were also inspected using a high powered torch to identify any other nests or evidence of use present.

3.3 Limitations

In accordance with best practice guidelines, each bat survey visit was undertaken during the peak period in bat activity and during good weather conditions. The results presented here are therefore considered to be an accurate representation of the general use of the property by roosting bats. Nevertheless, bats can use roosting features intermittently throughout the year and may be present in larger or smaller numbers depending on their breeding cycle, weather conditions, and in response to disturbance. These surveys record the emergence of bats at the time of the survey visits and therefore only provide a snapshot of bat roosting activity at the site at that time. Bats may be present at other times and the results should therefore be viewed with caution.

Visibility of the western aspect of the roof of B2 was limited due to foliage, however, the angle of the camera used at the southern end should have captured any bats emerging from the building, even if the exact roof tile cannot be identified. The surveyor on this aspect was also replaced by a stand-alone bat detector for the second survey;

any bats recorded emerging would have been identified through the analysis of camera footage, and species confirmed by data from the stand-alone bat detector.

4 RESULTS

4.1 Bat Emergence Surveys

4.1.1 Survey Conditions

The dates, times, weather conditions, temperatures and personnel for each survey visit are presented in Table 1 below:

Table 1. Details of surveys undertaken, timings weather conditions and personnel.

Date	Survey start time/end time	Temp. degrees centigrade, weather conditions throughout survey	Surveyors
21st May 2026	Start time: 20:23 Sunset: 20:53 End time: 22:23	Max/min temp: 18–12°C. 40% cloud cover and still (BF0), dry.	Holly Waters Andy Fry Nathan Dixon L'Sol
11th June 2026	Start time: 20:45 Sunset: 21:15 End time: 22:45	Max/min temp: 15–15°C. 100% cloud cover and light air (BF1), dry.	Holly Waters Ben Small
2nd July 2026	Start time: 20:48 Sunset: 21:18 End time: 22:48	Max/min temp: 21–16°C. 10% cloud cover and light air (BF1), dry.	Holly Waters Andy Fry Nathan Dixon L'Sol

4.1.2 Bat Emergence Results

The following descriptions summarise bat activity and emergence from the buildings for each survey visit.

- 21st May 2026

  General bat activity was moderate, mostly comprising foraging common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* bats. Towards the end of the survey a pass by a *Myotis* species was also recorded. At 21:28, a bat was recorded flying inside B2. This was likely a common pipistrelle as the only bats recorded in the period after this were of this species. Although an exact emergence point cannot be located, it is assumed to be on the western roof aspect internally.

- 11th June 2026

  Bat activity was relatively low during this survey. Occasional commuting and foraging passes by common pipistrelle and soprano pipistrelle bats were recorded. Occasional commuting passes by noctule *Nyctalus noctula* were also recorded.

- 2nd July 2026

  Bat activity was relatively high through this survey, with foraging common pipistrelle and soprano pipistrelle bats around the buildings from 21:50 onwards. Commuting passes were also recorded from brown long-eared bats *Plecotus auritus*, serotine *Cnephaeus serotinus*, and *Myotis* species. B1 was noted to be used for foraging purposes at 22:30.

Four common pipistrelle bats were seen to emerge through the open garage door on the southern end of B2, between 21:50 and 22:00, however, were not seen on the camera facing north within B2, therefore the roost is likely located at the southern end of B2.



Figure 2. Location of the bat roosts and barn owl nest box within the buildings. Green indicates the common pipistrelle on the 21st May 2026, and yellow indicates the roost and emergence location of the four common pipistrelles on the 2nd July 2026. The brown long-eared bat droppings identified on the 10th November 2025 are indicated by a white outline. The barn owl box is shown by a blue star. Image produced courtesy of Google maps (map data ©2026 Google).

4.2 Bat Hibernation Surveys

The first hibernation survey was undertaken on the 8th January 2026 by Holly Waters, assisted by James Whitby. The external temperature was around 5°C. Both barns were intensively surveyed internally using a high-powered torch and an endoscope. No evidence of hibernating bats was found within the buildings.

The second hibernation survey was undertaken on the 2nd February 2026 by Owen Crawshaw, assisted by James Whitby. The external temperature was around 7°C. Both barns were intensively surveyed internally using a high-powered torch and an endoscope. No evidence of hibernating bats was found within the buildings.

4.3 Barn Owl Survey

A barn owl survey was undertaken on the 1st June 2026 by Owen Crawshaw, assisted by Ben Small. The box within B1 was investigated to identify the type of use. A total of four juvenile barn owls were identified within the box during the survey. Owl pellets were identified within all three barns.

The site was continuously monitored during the bat emergence surveys also. Four barn owls were seen on each survey flying through all barns and using the surrounding farmland for foraging.

5 IMPACT ASSESSMENT AND MITIGATION RECOMMENDATIONS

5.1 Interpretation of Findings

The surveys have identified presence of a brown long-eared bat transitional roost, classified as such as no emergences were recorded on any of the surveys. Two common pipistrelle day roosts were also identified to be present. All roosts are present within B2.

5.2 Potential Impacts

While proposed plans are not yet available, and the assessment may need to be updated once they are, the proposal to convert the barns to residential use will either modify or destroy all bat roosts. In the absence of mitigation, this could potentially result in harm to individual bats and permanent loss of bat roosts. As the roosts impacted are day and transitional roosts of common species, destruction of these roosts is considered to have a low impact at site level.

5.3 Outline Mitigation Measures

A European Protected Species (EPS) licence will be required for the development to legally proceed. Based on the results of the survey and predicted scale of impact, this development will be eligible for adding to the 'Earned Recognition' bat licence issued by Natural England and held by certain qualified bat ecologists.

As part of the licence application, a mitigation method statement will need to be prepared to demonstrate that the favourable conservation status of bats will be maintained through the life of the project. The possible measures that would be required to safeguard bats and achieve this are outlined below:

- Preparatory works – 'soft strip'
  All potential roost features should be carefully hand stripped one by one under the direct supervision of a licenced bat ecologist. Any bats found shall be gently captured and placed into bat boxes that have been secured to trees surrounding the site in advance. The ecologist will remain on site until they are satisfied that the building has been made unsuitable for bats. The ecologist will remain on call for the duration of the works in the event that a bat is discovered unexpectedly.

- Timing
  The hand stripping should be undertaken in the period between mid-March and the end of October to avoid disturbing bats that could be in hibernation. As no maternity roosts have been identified during the surveys of this property, avoiding the breeding period (May–August inclusive) is not considered necessary.

- Replacement roost site
  A minimum of two crevice and one cavity bat box must be installed either on nearby buildings on site, or

on mature/semi-mature trees on site prior to the commencement of works. The boxes will be used to house any bats encountered during works and will be retained in perpetuity as an enhancement. The bat box must be orientated south or east facing at a minimum height of 3.5m from the ground and away from sources of artificial lighting.

Replacement roosting opportunities must be incorporated into the proposed replacement building. These can be detailed once proposed plans are known, but could be achieved through the installation of bat tubes, bat tiles or ridge tile access points into a loft void. Examples are shown in Appendix 3.

Roof linings must be a bitumen type 1F bituminous felt only as breathable roof membranes can fray over time and entangle bats.

- Artificial lighting
  The use of artificial lighting inappropriately can result in significant disturbance to bats. The detailed design should include a lighting scheme that minimises these impacts by following the Bat Conservation Trust's guidance on lighting, reproduced in Appendix 4 of this report.

5.4 Barn Owls

Conversion of B1, in the absence of mitigation and compensation, will lead to the permanent loss of a nest site used by the species. Mitigation and compensation with therefore need to include the following elements:

- Alternative provision
  A barn owl box will be installed on a tree or retained building within 200m of B1 to provide temporary alternative roosting provision. The box will be installed at least 3m above ground level and will be in place at least 30 days prior to the commencement of works (preferably 60 days before, and ideally 90 days before).

- Timing
  Works to impact B1, and B2 and B3 due to their proximity to the nest site, should be undertaken outside of the bird nesting season (avoiding March–August inclusive).

- On-site protection measures
  The owl box installed as alternative provision will be protected from disturbance through the establishment of a 'no-go' area with regards to development. Where appropriate, a 50m exclusion zone will be established using fencing and signage as appropriate. The following information will be provided to all personnel working on site;
  - status and locations of barn owls on site
  - legal protection
  - range and extent of exclusion zones
  - financial and custodial penalties for any offence.

- Pre-commencement check
  Prior to the commencement of works, an ecologist will make a pre-commencement check of the nest box within B1 for nesting owls. Given that the box serves as a current nest site, the check will need to be undertaken by a Natural England Barn Owl Survey Class Licence holder. In the event that a roosting owl

is identified (and is not flushed) from the barn, works to this area will be delayed until such a time as the owl has left its roost site. Should eggs or chicks be identified, works will be delayed until the last young have fledged.

- Permanent provision
  Plans are still being finalised, but they should either incorporate integrated provision for roosting owls within a loft in the converted building, or should be incorporated into a close by building. Design requirements of the integrated space are provided below[3]:
  - Minimum size: 100mm wide x 200mm high, optimum size 130mm x 250mm, maximum size 200mm x 300mm.
  - The bottom of the hole must not have any sharp edges or narrow gaps in which a toe or talon could get caught.
  - Where necessary there can be a 'tunnel', minimum 150mm wide x 200mm high, between the hole and the nest space.
  - A grippable ledge (e.g. stone or slatted timber) below the owl hole provides an exercise platform for emerging owlets.
  - In cases where the owl hole goes directly into a nest space less than 700mm deep, an exercise platform is considered essential; the bigger the better, but not less than 250mm x 500mm wide with a grippable raised edge.
  - Floor area of nest chamber: absolute minimum 0.4m^2 (e.g. 500mm x 800mm or 400mm x 1m), ideal size is 1m^2. These dimensions are bigger than those for nest boxes because built-in provision usually lacks an external exercise platform that would permit maximum wing stretching prior to fledging.
  - Where there is no external exercise platform the internal box depth from bottom of entrance hole to floor of nesting area must be not less than 700mm. Note: the ideal depth for barn owls is at least 1m, which should be achieved wherever space permits.
  - Depth from bottom of entrance hole to floor of nesting area must be not less than 450mm provided that there will definitely be an easy-to-grip external exercise platform for fledglings to stand on outside the owl hole.
  - In a large loft, simply partition off a section behind the owls' entrance hole.
  - Stone, brick and timber are all suitable materials. Although owls are not destructive and seem unharmed by soft insulation materials, these are usually best avoided.
  - In an unheated building, no insulation is required.
  - Lining the space is not essential although some owl workers think that a thin layer of wood flakes encourages occupation.
  - An internal perch positioned *as high or higher* than the access hole may be beneficial as long as the space is big enough to accommodate one without resulting in one perched bird defecating on another underneath.

[3] Barn Owl Trust https://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes-building-projects/

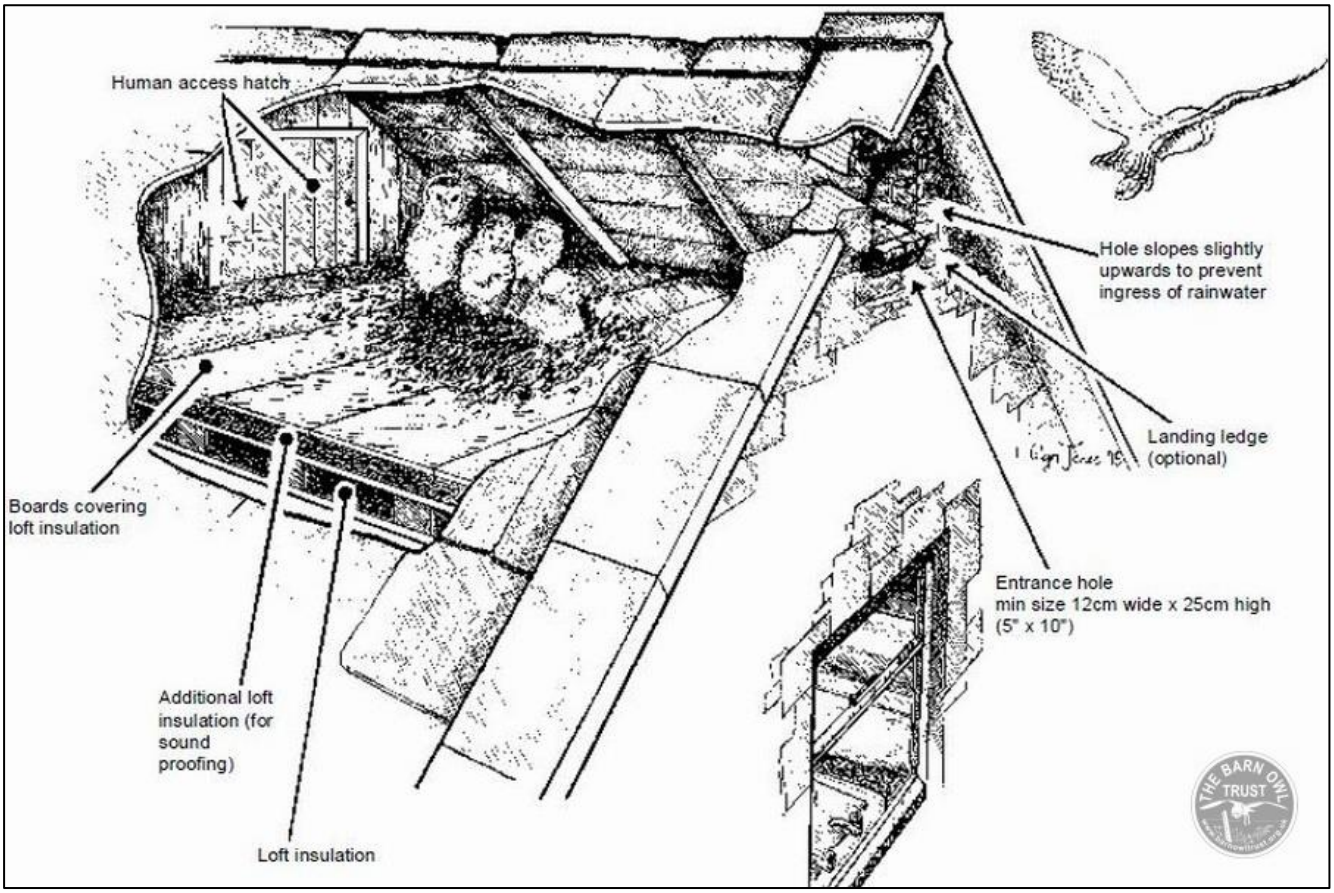


Figure 3. A diagram of integrated barn owl permanent provision. *Source:* www.barnowltrust.co.uk

5.5 Conclusions

Overall, in consideration of the bat hibernation season and bird nesting season, works to remove roof tiles, and make the buildings unsuitable for roosting bats and nesting birds should be undertaken in September or October.

Should you need any further advice on the information provided above, please do not hesitate to contact The Ecology Co-op.

APPENDIX 1 – LEGISLATION AND POLICY

All species of British bat are fully protected under the Wildlife and Countryside Act 1981 as amended through inclusion in Schedule V. All bat species in the UK are also included in Schedule II of the Habitats Regulations 2017 which transpose Annex IV of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

Bat species are afforded further protection by the Natural Environment and Rural Communities Act 2006.

Under the above legislation it is an offence to:

- kill, injure or take an individual;
- possess any part of an individual either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by these species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- deliberate disturbance in such a way as to be 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;
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead bat, or any part of, or anything derived from a bat.

It is also an offence to set and use articles capable of catching, injuring or killing bats (for example a trap or poison), or knowingly cause or permit such an action. In the case all species of British bat there is also protection under Schedule 6 of The Wildlife and Countryside Act 1981 (as amended) relating specifically to trapping and direct pursuit of these species.

The Habitats Directive and Habitats Regulations provide for the derogation from these prohibitions for specific reasons provided certain conditions are met. An EPS licensing regime allows operations that would otherwise be unlawful acts to be carried out lawfully. In England, Natural England is the licensing Authority and, in order to grant a license, ensures that three statutory conditions (sometimes referred to as the 'three derogation tests') are met:

- a licence can be granted for the purposes of "preserving public health or safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment" (Regulation 55 (2) (e);
- a licence can only be granted if "there are no satisfactory alternatives" to the proposed action;
- a licence shall not be granted unless the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

A bat roost is defined as "any structure or place, which any wild bat uses for shelter or protection." Bats tend to re-use the same roosts; therefore, legal opinion is guided by recent case law precedents, that a roost is protected whether or not the bats are present at the time. This can include all summer roosts, used for breeding, resting or sheltering and all winter roosts used for hibernating.

APPENDIX 2 – DARKEST POINTS



Figure 1. Darkest points from cameras on the southern aspect, on the 21st May 2026 (left), 11th June 2026 (centre) and 2nd July 2026 (right).



Figure 2 Darkest points from cameras on the northern and eastern aspects, on the 21st May 2026 (left), 11th June 2026 (centre) and 2nd July 2026 (right).



Figure 3. Darkest points from cameras on the western aspect, on the 21st May 2026 (left), 11th June 2026 (centre) and 2nd July 2026 (right).



Figure 4. Darkest points from cameras inside B1, on the 21st May 2026 (left), 11th June 2026 (centre) and 2nd July 2026 (right).



Figure 5. Darkest points from cameras inside B2, on the 21st May 2026 (left), 11th June 2026 (centre) and 2nd July 2026 (right).

APPENDIX 3 – EXAMPLES OF REPLACEMENT BAT ROOSTING FEATURES



Figure 1. Left to right, the 2F, 2FN and the 1FS bat boxes produced by Schwegler. These and other brands are available at many on-line wildlife stores. These are constructed of 'woodcrete' (a mixture of cement and woodchip) and are designed to be durable and replicate the stable thermal properties of trees and buildings. They may be attached to trees or buildings.



Figure 2. Examples of integral bespoke bat roosting features that may be incorporated into buildings during construction/renovation. From left to right: an example of bat access tile into loft space; the 2FR bat tube; and an example of 2FR bat tubes installed into a house wall in a series of three. Other brands and designs are available.

APPENDIX 4 – REDUCING IMPACTS OF ARTIFICIAL LIGHT

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts to other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness.

Guidelines issued by the Bat Conservation Trust[4] should be referred to when designing the lighting scheme. Note that lighting designs in very sensitive areas should be created with consultation from an ecologist and using up-to-date bat activity data where possible. The guidance contains techniques that can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

Avoid lighting key habitats and features altogether

There is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation; however, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species.

Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results:

- dark buffers, illuminance limits and zonation;
- sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill;
- consideration of the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consideration should be given to the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cats eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times;

[4] Bat Conservation Trust and Institute for Lighting Professionals (2023) Guidance note 8. Bats and Artificial Lighting. https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

- screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding;
- glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and features;
- creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development;
- dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

Demonstrate compliance with illuminance limits and buffers

- *Design and pre-planning phase*; 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 and post-completion light monitoring surveys*; 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 or modelled illuminance limits being achieved.
- *Post-construction/operational phase compliance-checking;* 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.

Lighting Fixture Specifications

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.

Further reading:

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