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Ref: Conversion of barns at Brighthams Farm for residential use

To whom it may concern,

The Ecology Co-op undertook a bat scoping assessment at Brighthams Farm on the 10th November 2025 at the request of Rose Banks. This assessment was undertaken further to a proposal to convert the existing barns for residential use. The survey was undertaken in accordance with best practice guidance produced by the Bat Conservation Trust[1].

The site is situated in a rural location, south of Partridge Green, West Sussex. It comprises a number of residential buildings and agricultural buildings, and is surrounded by mixed-use farmland. The site location is shown in Figure 1, Appendix 1. Proposed plans for the site are not yet available.

There are no designated sites present within a 2km radius of the barns at Brighthams Farm, and no priority habitats within the close surrounding area of the site. There is one EPS licence granted within a 1km radius of the site. This licence (EPSM2013-6513) concerns the destruction of a resting place and a breeding place for bat species, common pipistrelle *Pipistrellus pipistrellus*, brown long-eared *Plecotus auritus*, whiskered myotis *Myotis mystacinus* and Natterer's myotis *Myotis nattereri*. It ran from October 2013 to September 2014 and is located approximately 560m north-west of the site.

Table 1 below summarises the structures assessed for bat roosting potential. Both the exterior and interior of the buildings were inspected as part of the survey.

Table 1. Summary of structures assessed for Potential Roost Features (PRFs) on the buildings.

Building section	Description of features	Assessment of suitability (Collins 2023)
B1	B1 is a large barn, with open doors on the northern aspect. Timber beams support the building, clay tiles cover the roof, and a bitumen lining covers the inside of the tiles. Wooden cladding covers the external eastern aspect. Potential roosting features are present throughout the building, with gaps beneath roof tiles, under wooden	High bat roost suitability Moderate hibernation

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

Building section	Description of features	Assessment of suitability (Collins 2023)
	cladding boards, and in mortise joints internally. There is the potential for droppings to be present, however, there was a significant amount of debris present across the floor which may have disguised them.	suitability
B2	B2 is adjacent to B1. It is supported by timber beams, with an unlined clay tile roof. It is open-sided on the eastern aspect, but connected to B3. Gaps are present beneath roof tiles, and ventilation gaps are present at alternate ridge tiles. Moderate levels of cobwebbing are present along the ridge. Scattered bat droppings were present within the barn, below the ridge. These were sent for DNA testing, and were confirmed to be brown long-eared bat droppings. The small number of droppings present confirm use of the building by bats, but are not considered sufficient in number to confirm presence of a bat roost. There is the potential for more droppings to be present, however there was a significant amount of debris across the floor which may have disguised them.	High bat roost suitability Low hibernation suitability
B3	B3 is an open-sided structure supported by metal beams, with a corrugated chrysotile roof. There were no obvious potential roosting features and no evidence of use by bats.	Negligible bat roost suitability Negligible hibernation suitability

The site is located in a rural location, surrounded by moderate foraging habitat. It is well-connected to the wider landscape through lines of trees.

Overall, the suitability of B1 and B2 to support roosting bats is rated as 'high', considering the condition of the buildings and their context within suitable foraging habitat for bats. The works to convert the buildings for residential use have the potential to impact on features that have potential to support bat roosts, not yet identified.

Therefore, in accordance with the guidelines, three bat emergence/re-entry surveys are required to determine the importance of these buildings to bats, as without further surveys the level of impact upon bats cannot be fully assessed. To ensure adequate coverage of all potential roost features, it is estimated that four observers will be required for each survey visit to observe all suitable roost features. To ensure that the survey effort conforms with interim guidance on the use of night vision aids, produced by the Bat Conservation Trust[2], six night vision cameras supported by infra-red lighting will be used to support surveyors.

These surveys can be undertaken between May and mid-September. These surveys will be completed at dusk or at dawn, during suitable weather conditions for bat activity to observe any bats emerging or re-entering roosts. Surveyors will use ultrasonic recording equipment to try and establish the species of bat present. If bats are discovered, further surveys to classify the nature of the roost (day/maternity/social) may be required.

The identification of a bat roost would also mean that careful timing of the development may be required in order to avoid impacts on bats, a precautionary 'soft strip' of tiles supervised by a licensed and

[2] Bat Conservation Trust (2022). Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys.

suitably qualified bat ecologist and provision of permanent bat roosting features into the development would also be required, the nature of which would be dependent on the outcome of the surveys.

An EPS licence would be required for any actions that would directly disturb, modify or destroy a bat roost. This would include measures to replace the existing roosting habitat such as designing integral bat roosting opportunities into the building fabric such as bat tiles and internal voids/access points for bats, depending on the scale of impact.

The hibernation suitability of B1 is rated as moderate and B2 is low. Further surveys are therefore required to understand the use of the building by bats in the winter. These surveys should include inspection of the barns with a high-powered torch and an endoscope, with one survey in January and one survey in February, when temperatures are consistently below 8ºC.

The roof tiles on both B1 and B2 could also be used for hibernation, however it would be impossible to fully investigate bat use over the winter period without dismantling the features, and hence potentially destroying a bat roost and therefore assessment of these areas are not advisable.

The suitability of B3 to support roosting bats and hibernating bats is rated as ‘negligible’. As such, it is concluded that proposed works to this building would not impact on roosting bats, and no further surveys are recommended in this instance.

To mitigate disturbance to foraging and commuting bats from artificial lighting, the proposed development must include an ‘ecologically sensitive lighting scheme’ in accordance with guidance produced by the Bat Conservation Trust (summarised in Appendix 3).

A barn owl box is present within B1. The box itself could not be surveyed during the site visit, however a small number of owl pellets were scattered across the floor of the barn between the box and the open doors. A further survey will be required to determine the use of the box by barn owls. This will need to be undertaken during the summer months, and by a licenced surveyor.

If you have any queries about the findings of this assessment, then please do not hesitate to contact me.



APPENDIX 1 – Figures



Figure 1. Aerial image showing the location of the barns at Brighthams Farm (indicated with a red outline). Site plan. Image produced courtesy of Google maps (map data ©2025 Google).

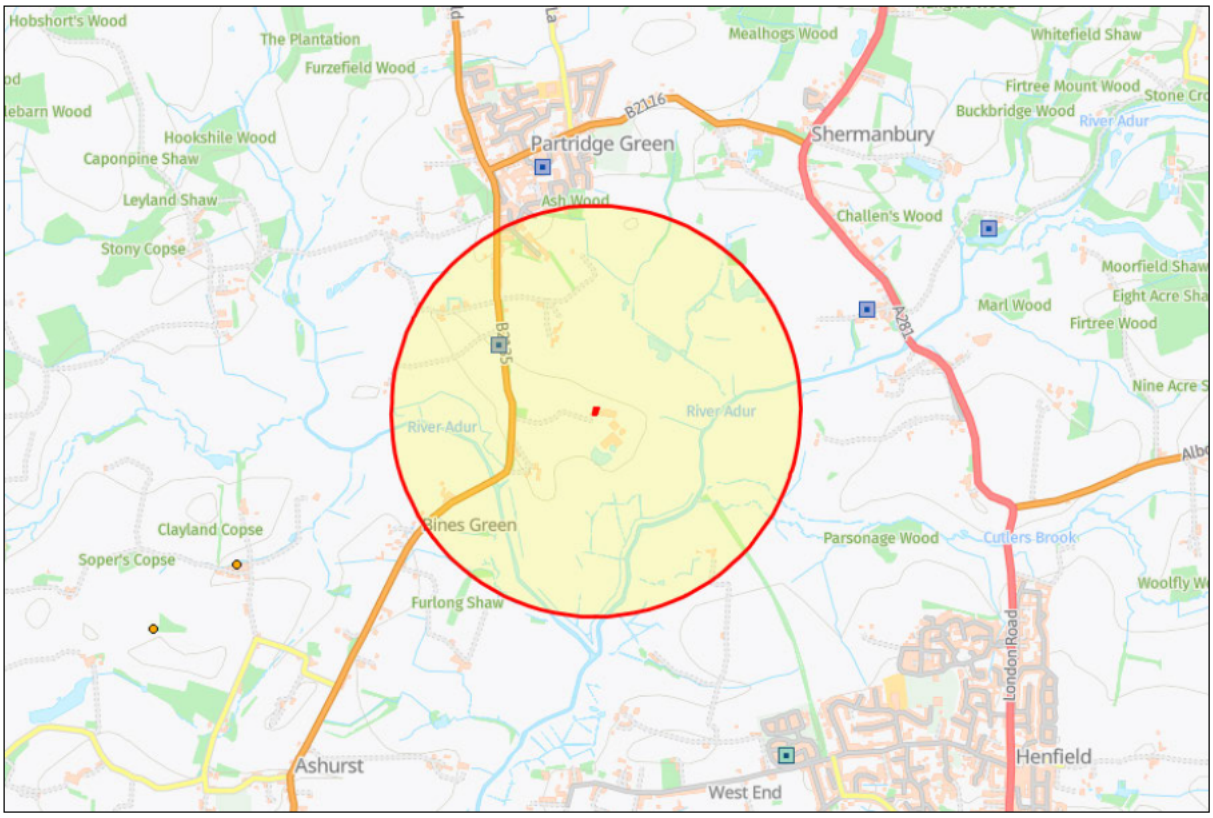


Figure 2. EPS licences within a radius of 1km of Brighthams Farm (purple indicates EPS licence for bats, green indicates EPS licences for great crested newts). Image produced courtesy of Magic maps (http://www.magic.gov.uk/, contains public sector information licenced under the Open Government Licence v3.0).

APPENDIX 2 – Site Photographs




Photographs 1a (left) and 1b (right). 1a: an internal view of B1. 1b: the northern and western aspects of B1.




Photographs 2a (left) and 2b (right). 2a: the eastern aspect of B1. 2b: the southern aspect of B1.




Photographs 3a (left) and 3b (right). 3a: the eastern and southern aspects of B2 and the southern aspect of B3. 3b: the western aspect of B2.




Photographs 4a (left) and 4b (right). 4a: an internal view of B2. 4b: some of the scattered droppings below the ridge in B2.




Photographs 5a (left) and 5b (right). 5a: the owl box within B1. 5b: the owl pellets on the floor of B1.

APPENDIX 3 – 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[3] 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;
- 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

[3] 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/

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:

Buglife (2011) A review of the impact of artificial light on invertebrates.

Royal Commission on Environmental Pollution (2009) Artificial light in the environment. HMSO, London. Available at: https://www.gov.uk/government/publications/artificial-light-in-the-environment

Rich, C., Longcore, T., Eds. (2005) Ecological Consequences of Artificial Night Lighting. Island Press. ISBN 9781559631297.

CPRE (2014) Shedding Light: A survey of local authority approaches to lighting in England. Available at: http://www.cpre.org.uk/resources/countryside/dark-skies/item/3608-shedding-light

Planning Practice Guidance guidance (2014) When is light pollution relevant to planning? Available at: https://www.gov.uk/guidance/light-pollution

Institution of Lighting Professionals (2021) Guidance Notes for the Reduction of Obtrusive Light GN01:2011. Available at: https://www.theilp.org.uk/resources/free-resources/

Voigt, C.C., Azam, C., Dekker, J., Ferguson, J., Fritze, M., Gazaryan, S., Hölker, F., Jones, G., Leader, N., Lewanzik, D. and Limpens, H., 2018. *Guidelines for consideration of bats in lighting projects*. Unep/Eurobats. Available at:

https://cdn.bats.org.uk/uploads/pdf/Resources/EUROBATSguidelines8_lightpollution.pdf?v=1542109376