

30th June 2026

Our Ref: 2026-089

Bat Impact Assessment – Site near Raybarrow Farm, Nettleton

Background

Smart Ecology was commissioned by Mr Wayne Clark (the client) to carry out a desk-based analysis of potential impacts on the Bath and Bradford-on-Avon Bat Special Area of Conservation (SAC) due to the creation of enlarged hardstanding and the moving of a storage cabin on agricultural land at Countryside, Nettleton Shrub, Nettleton, Chippenham, SN14 7NN.

Refusal Reason 3 of Refusal of Full Planning Permission Application Reference Number: PL/2025/09935 states:

“The site falls within the Bath and Bradford-on-Avon Bat Special Area of Conservation (SAC) and, per paragraph 194(a) of the NPPF, the site is afforded the same protection as a habitats site. Core Policy 50 (WCS) requires that proposals ‘avoid harm’ to ecological assets and to deliver biodiversity and enhancement. The proposed development, an extent of which has already occurred, does not meet this policy requirement and as such the application conflicts with Core Policy 50 (WCS) and paragraphs 193-195 of the NPPF.”

This impact assessment has been produced by Robert Dunn, a senior ecologist at Smart Ecology and an associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Site Context

The site is located in a 2 km lesser horseshoe buffer (Core Area) for the Bath and Bradford-on-Avon Bat SAC.

Lesser horseshoe bat is an Annex II species which is a qualifying feature of the SAC, although not a primary reason for site selection.

Aerial imagery¹ shows that an extensive area of broadleaved woodland is located approximately 130 m to the east of the site, grassland is located to the east and north, residential properties with gardens are located to the west, and a minor road with residential properties beyond it is located to the south, the local landscape predominantly comprises arable and pasture fields with boundary hedgerows, with extensive areas of woodland also present.

¹ Google Earth (accessed June 2026).

Impact Assessment

Impacts on bats could arise from the loss of foraging and commuting habitat and disturbance due to the installation of artificial lighting.

Aerial imagery shows that as recently as July 2022 the site appeared to predominantly comprise trees and scrub, comprising an area of approximately 0.1 ha. Photographs provided to Smart Ecology by the client show the presence of mixed scrub and short sward grassland on the site. Aerial imagery and photographs provided to Smart Ecology by the client show that the majority of vegetation has now been cleared from the site, with scattered trees along the site boundary and areas of short sward grassland remaining. A pre-existing storage shed has also been retained.

Lesser horseshoe bats are highly reliant on continuous, structurally intact linear features for commuting between roosts and foraging areas, rarely crossing open ground or gaps in vegetation cover (Bontadina et al., 2002; Schofield, 2008). Hedgerows, tree lines, woodland edges and well-vegetated watercourses that form unbroken corridors are therefore of particular importance to this species, and even relatively minor breaks in these features can act as significant barriers to movement (Schofield, 2008). Core foraging habitat typically comprises broadleaved woodland with a well-developed shrub layer, wood-pasture, traditional orchards, parkland containing mature trees, and sheltered grazed pasture connected by dense hedgerows (Bontadina et al., 2002; Dietz et al., 2009; Schofield, 2008).

Mixed scrub and trees which were previously present on the site could have provided suitable foraging habitat for lesser horseshoe bats. However, given the abundance of similar habitat in the local landscape, and the small extent of habitat which was previously present on the site, it is considered unlikely that the removal of this vegetation would have had a significant effect on the lesser horseshoe bat population, and thus a negative impact on the integrity of the SAC.

It is understood that three security/motion-activated lights have been installed in the southern part of the site. Without mitigation, this artificial lighting could potentially disturb foraging and commuting bats.

Recommended Mitigation

If external lighting is essential then it should follow the specifications detailed in ILP Guidance Note 8: Bats and Artificial Lighting at Night (ILP, 2023) which includes the use of:

- LED luminaires.
- A warm white light source (2700 Kelvin or lower) to reduce blue light component.
- Light sources with a peak wavelength higher than 550 nm to avoid the component of light most disturbing to bats.
- Luminaires mounted horizontally, with no light output above 90° and no upward tilt.
- External security lighting set on motion sensors and set to as short a timer as possible. For most purposes, a 1 or 2 minute timer is likely to be appropriate.

It is recommended that new native tree and shrub planting is carried out along the site boundaries to fill in existing gaps, to create a linear habitat feature of benefit to foraging and commuting bats.

Conclusions

It is considered that the works that have taken place are unlikely to result in a significant adverse effect on the integrity of the Bath and Bradford-on-Avon Bat SAC, either alone or in combination with other plans or projects.

Implementation of a sensitive lighting scheme and native tree planting is recommended.

References

Bontadina, F., Schofield, H. & Naef-Daenzer, B. (2002). *Radio-tracking reveals that lesser horseshoe bats (Rhinolophus hipposideros) forage in woodland.* Journal of Zoology, 258(3), 281–290.

Dietz, C., von Helversen, O. & Nill, D. (2009). *Bats of Britain, Europe and Northwest Africa.* London: A&C Black.

ILP (Institution of Lighting Professionals) (2023). *Guidance Note 08/23: Bats and Artificial Lighting at Night.* ILP, Rugby.

Schofield, H.W. (2008). *The Lesser Horseshoe Bat: Conservation Handbook.* Ledbury: Vincent Wildlife Trust.