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**Bridgefield Farm**  
**Cowlinge**  
**Suffolk**

## **Nocturnal Bat Survey Report**

**Mr and Mrs M Watson**

VERSION 2

Final

21 August 2022

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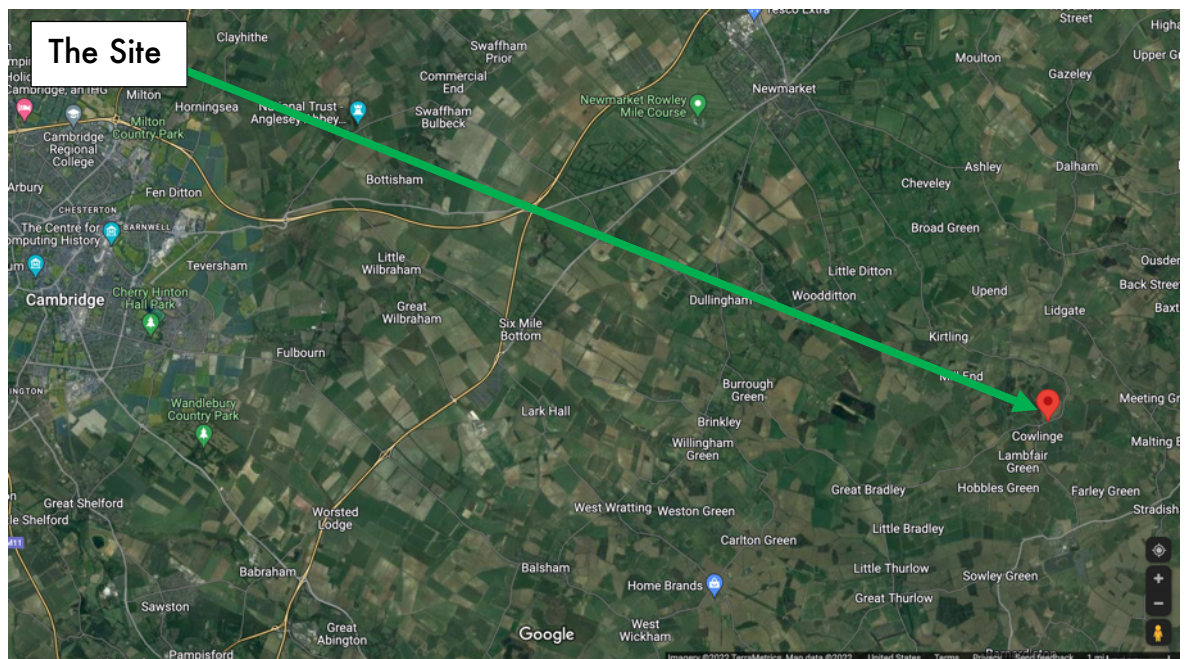
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# 1. Introduction

BiOME Consulting Ltd was commissioned by MDS Design Associates, on behalf of the site owners (Mr and Mrs Watson), in June 2022 to undertake a series of emergence/re-entry bat surveys (following a Preliminary Roost Assessment (PRA) (**Section 1.2**) completed on 20 June 2022<sup>1</sup>) in relation to the proposed redevelopment of two barns at the northern end of Cowlinge village, east Suffolk ('the site') (**Figure 1 & 2**).

**Figure 1.** Site location



## 1.1. Site Description

The site comprised two barns proposed for redevelopment works (**Figure 2**):

- **North Barn** – reconstruction to create habitable space and garaging (following demolition of existing barn).
- **South Barn** – conversion to annex.

<sup>1</sup> BiOME Consulting Ltd (5 July 2022). *Bridgfield Farm, Cowlinge, Suffolk; Preliminary Roost Assessment Report*

Within the site further barns, dwellings and associated large gardens were present. Further out, mixed farmland predominated.

**Figure 2. Site layout - Aerial**



## 1.2. Preliminary Roost Assessment (PRA) Results

### 1.2.1. North Barn

Three night-roosts/feeding perches of Brown Long-eared Bat *Plecotus auritus* (BLE) were identified in the North Barn during the PRA, likely used by 1-2 individual bats (based on the volume of dropping evidence). A rarely used day-roost of what was considered to be a pipistrelle species (one individual) was also identified on the northern wall. A further likely day-roost site was present on the eastern wall (bat droppings not assigned to species, present below likely roost site).

No evidence to suggest that larger or more important roosts were present in the barn were identified.

North Barn was assessed to be a confirmed roost site and in line with good practice<sup>2</sup>, and for the purposes of a Natural England derogation licence application (to allow the proposed works to be completed legally) further survey work was required to establish with more certainty the status of roosting bats within the barn. As such, a minimum of two nocturnal bat surveys were recommended, to be completed in the main bat active season (May-September inclusive (with the first survey to be completed by the end of August)).

### 1.2.2. South Barn

No evidence indicative of roosting bats was identified in the South Barn. A small number of BLE droppings were found on the ground of the ground floor, but these were not associated with an Potential Roost Features (PRFs) and were therefore likely indicative of flying bats only.

South Barn was classified as being of low potential to support roosting bats and at least one nocturnal survey was recommended to assess whether bats use the barn for roosting.

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2 Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3<sup>rd</sup> edn.). The Bat Conservation Trust, London

## 2. Legislative Context

All British bat species are fully protected at national and European levels, through their inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)<sup>3</sup> and in Schedule 2 of the Conservation of Habitat and Species Regulations 2010<sup>4</sup>. Under this legislation, it is an offence to deliberately kill, injure or take a bat as well as intentionally or recklessly damage, destroy or obstruct access to any structure or resting place used for shelter or protection by a bat or disturb an animal while it is occupying a structure or place which it uses for that purpose.

Four species of bat, Greater Horseshoe Bat *Rhinolophus ferrumequinum*, Lesser Horseshoe Bat *R. hipposideros*, Bechstein's Bat *Myotis bechsteinii* and Western Barbastelle *Barbastella barbastellus*, are included on Annex II of the Habitats Directive<sup>5</sup>, which requires the designation of Special Areas of Conservation to ensure the maintenance of favourable conservation status (and these are therefore generally considered as perhaps the most important UK species). Seven bat species are listed as Section 41<sup>6</sup> priority species; Barbastelle, Bechstein's Bat, Noctule *Nyctalus noctula*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Brown Long-eared Bat *Plecotus auritus*, Greater Horseshoe Bat and Lesser Horseshoe Bat.

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3 The Wildlife and Countryside Act 1981 (as amended)

4 The Conservation of Habitats and Species Regulations 2010

5 Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

6 Of the Natural Environment and Rural Communities Act 2006

### 3. Methodologies

#### 3.1. Suitably Qualified Ecologists

The site surveys were managed by Richard Moores BSc (Hons) MCIEEM, NE bat licence no. 2015-12259-CLS-CLS. Richard also completed the PRA.

The nocturnal surveys were completed by Will Soar BSc (Hons) and Sarah Morrison BSc (Hons)/MA, both of whom are experienced nocturnal bat surveyors having completed an average of 40 nocturnal surveys each over the previous ten years (Will) and three years (Sarah).

#### 3.2. Field Surveys

##### 3.2.1. Emergence/Re-entry Surveys

Two nocturnal surveys of both barns were completed in line with appropriate survey guidance<sup>3</sup>.

#### North Barn

To ensure coverage of all potential bat access points/roost features, surveys were completed by two surveyors, located off the southeast and northwest corners of the barn. Surveyors were equipped with electronic bat detectors (EM Touch Pro 2) and sound files were analysed with appropriate bat analysis software (Kaleidoscope) once the surveys were completed, if required.

The nocturnal bat surveys were undertaken in weather conditions considered appropriate for surveys of this kind (Table 1).

**Table 1.** North Barn - nocturnal bat activity survey information

Date	Surveyors	Sunrise/ Sunset	Time		Cloud	Wind (Beaufort/ Direction)	Temp (°C)	Precip.
			Start	Finish				
18/07/2022	WS, SM	21.09	20.55	22.40	3/8	1 S	27	Nil
14/08/2022	WS, SM	05.40	04.10	05.55	0/8	1 E	16	Nil



## South Barn

To ensure coverage of all potential bat access points/roost features, surveys were completed by two surveyors, located off the southeast and northwest corners of the barn. Surveyors were equipped with electronic bat detectors (EM Touch Pro 2) and sound files were analysed with appropriate bat analysis software (Kaleidoscope) once the survey was completed, if required.

The nocturnal bat surveys were undertaken in weather conditions considered appropriate for survey of this kind (Table 2).

**Table 2.** South Barn - nocturnal bat activity survey information

Date	Surveyors	Sunrise/ Sunset	Time		Cloud	Wind (Beaufort/ Direction)	Temp (°C)	Precip.
			Start	Finish				
21/07/2022	WS, SM	21.07	20.50	22.38	8/8	1 W	17	Nil
11/08/2022	WS/SM	20.21	20.06	21.54	0/8	1 W	23	Nil

### 3.3. Limitations

The findings presented in this study represent those at the time of survey. Nocturnal surveys are limited by factors which affect the presence of bats, such as the time of year, weather and behaviour.

## 4. Results

The results of the nocturnal surveys are presented below.

### 4.1. North Barn

#### 18 July 2022 (dusk)

A single Common Pipistrelle emerged from above the door of the south aspect of the barn at 21.17. Its precise day-roosting position was not identified but considered likely to be on the northern wall, as identified during the PRA.

A single BLE emerged from the eaves on the southwest side the barn at 21.41.

No other bats were recorded roosting.

Regular foraging by up to two Common Pipistrelles was recorded from 21.25 until the end of the survey with a single Serotine *Eptesicus serotinus* over the site at 22.04 and an unidentified *Myotis* bat flew north at 22.05.

#### 14 August 2022 (dawn)

A single Common Pipistrelle entered the barn through a hole above a window on the west side of the southern elevation at 05.05. Its precise day-roosting position was not identified but considered likely to be on the northern wall, as identified during the PRA.

A single Soprano Pipistrelle entered its day roost behind an electric box on the western wall (inside) at 05.09.

No other bats roosted during the survey.

Two other Common Pipistrelles were recorded during the survey, last seen flying west at 05.25 with no bats recorded thereafter.

### 4.2. South Barn

#### 21 July 2022 (dusk)

No bats were recorded roosting during the survey.

The first bat recorded was a Common Pipistrelle at 21.21; thereafter, up to three Common Pipistrelles were recorded foraging in the area for the remainder of the survey. A single brief/distant Soprano Pipistrelle was recorded at 21.35 and a single Barbastelle flew south over the driveway at 21.47. No other bat species were recorded.

A single BLE was incidentally recorded emerging from its day roost in the North Barn at 21.40.

### **11 August 2022 (dusk)**

No bats were recorded roosting during the survey.

Up to three Common Pipistrelles and one Soprano Pipistrelle were recorded during the survey, with a BLE recorded foraging in the courtyard at 21.10. A single Serotine was recorded three times at 21.27-21.28 with a brief unidentified *Myotis* bat recorded at 21.28.

## **5. Conclusions and Required Actions**

### **5.1. Results Summary**

#### **5.1.1. North Barn**

The emergence/re-entry surveys and PRA identified that the North Barn is confirmed as a day roost site for one BLE, one Soprano Pipistrelle and one Common Pipistrelle. It is considered that the surveys completed have accurately characterised the roosts within the barn and no additional survey work is necessary.

#### **5.1.2. South Barn**

No bats have been confirmed as roosting in the South Barn. No further survey work in relation to bats is considered necessary prior to works to South Barn commencing. In the unlikely event that any roosting bats are disturbed during works to this barn, works should stop at once and the advice of a SQE sought.

### **5.2. Natural England Licencing**

The confirmation of roosting bats within an area of the North Barn to be impacted by the proposed works means that a licence from Natural England will be required to enable the proposed works to proceed lawfully. Given the identified roosts are of low conservation status, the site can be registered under the Bat Mitigation Class Licence (BMCL) scheme through a Registered Consultant (RC). Following submission of appropriate forms, the application takes up to ten working days to be assessed by Natural England.

### **5.3. Timing of Works**

There are no restrictions with regards to when (e.g. certain months of the year) works can take place, although it would be best practice to avoid low winter temperatures when bats may be in torpor (pipistrelles and BLE can use the same roosts year-round). A BMCL can only be obtained a maximum of four months prior to the start of works to the area of the roost and the licence covers a maximum timeframe of six months (i.e. works to destroy/modify the roost must be completed in six months, NOT that the project must be completed within this six-

month window). All permissions are required to have been obtained before the site can be registered under the BMCL scheme.

#### **5.4. Supervision of Works**

Works in the area of the roosts will need to be supervised by an RC (or accredited agent). Prior to works commencing, the RC would provide a 'toolbox talk' to those contractors on site in which details of e.g. best working practices and what to do in the event of discovering a bat will be discussed.

During supervised works to the area of the roost the RC would capture any bats that do not fly away and move them to a temporary bat box (erected on a nearby tree prior to works commencing).

These works (when capture/handling and exclusion of bats is possible) should ideally take place in conditions suitable for bats to be active (spring-autumn inclusive). However, works can also be undertaken in the winter as long as weather conditions allow (sunset temperature of at least 8°C on preceding 2+ days).

#### **5.5. Compensation**

Although there is no requirement for any compensatory roosting features to be installed under the BMCL scheme (favourable conservation status is maintained without any compensation), there may be a requirement in the conditions set out by the LPA.

Should this be the case, it is recommended that two integrated bat boxes (e.g. Ibstock type C) are built-in to the North Barn, ideally at the apexes of the eastern and western gable ends.

#### **5.6. General Mitigation**

Standard pollution control measures should be implemented during construction to protect habitats on/adjacent to the site. It is recommended that non-bitumen

coated roofing membranes are not used as part of the project as it has been shown that they can cause harm to bats<sup>7</sup>.

### **5.7. Enhancement Opportunities**

Opportunities may exist to create small habitat areas and to use native species in any landscape planting. Opportunities also exist to enhance the site for bat and bird species through the incorporation of bat/bird boxes into built structures or on retained trees. S41 priority species such as the House Sparrow *Passer domesticus* and Noctule *Nyctalus noctula* could potentially benefit from the provision of appropriate boxes. Such measures would therefore be beneficial to nature conservation and show compliance with the policy guidance.

### **4.2 Report/Survey Validity**

The findings of this report are considered valid for up to 18 months from the date of this report<sup>8</sup>. If the project is delayed beyond this period, an updated assessment of potential impacts will be required.

Please note that to inform a BMCL licence application surveys must have been completed during the most recent/current bat survey window (May – Sept, inc.). If a licence application is not submitted prior to May 2023, at least one update survey will be required by NE.

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<sup>7</sup> <https://www.bats.org.uk/our-work/buildings-planning-and-development/non-bitumen-coated-roofing-membranes>

<sup>8</sup> CIEEM (2019). *Advice Note on The Lifespan of Ecological Reports and Surveys* [online] available at: <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>