# Lower Farm Cottage, Manningford Abbots

## Bat Survey Report
## Mr and Mrs Gates



August 2023

## Document Control

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Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living creatures are capable of migration and whilst protected species may not have been located during the survey duration, their presence may be found on site at a later date.

The views and opinions contained within the document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to works.

## Contents


Executive Summary ..... 4

Executive Summary ..... 4

Introduction ..... 5

1.1 Introduction ..... 5

1.2 Site Location and Description ..... 5

1.3 Development Proposals ..... 5

- To re-roof, replacing slated with thatch, the northern face of the roof ..... 5
- Refurbish the cottages, turning them into a single dwelling ..... 5

1.4 Survey Objectives ..... 5

1.5 Quality Assurance ..... 6

Methodology ..... 6

2.1 Preliminary Roost Assessment ..... 6

2.2 Desk Study ..... 6

2.3 External Inspection ..... 6

2.4 Internal Inspection ..... 6

2.5 Bat Roost Assessment ..... 7

2.6 Equipment ..... 7

2.7 Dusk emergence survey ..... 7

2.8 Limitations ..... 8

Results ..... 9

3.1 Preliminary Roost Assessment ..... 9

3.2 Desk Study ..... 9

3.3 Bat Inspection Survey ..... 9

3.4 Activity Survey ..... 10

Discussion and Requirements ..... 11

4.1 Discussion ..... 11

4.2 Recommendations ..... 11

References ..... 12

Photographs ..... 12

Appendix 1 ..... 12

Legislation and Policy ..... 13

## Executive Summary


- In June 2023 Daniel Ahern Ecology Ltd were commissioned Mr & Mrs Gates to undertake a Preliminary Roost Assessment (PRA), also known as a bat inspection survey, of Lower Farm Cottages in Manningford Abbots.
- The desk-based assessment returned no records for SAC relating to Annex II bats within 7.5km of the site. A single EPSL had been granted within 2km of the site, which covered brown long-eared and common pipistrelle.
- **Building 1 – Lpower Farm Cottage was assessed as having MODERATE** bat roost potential based on the number of PRF recorded in the external fabric of the structure. **Building 2 – the outbuilding was assessed to have LOW bat roost potential based** on the number of PRF recorded in the external fabric of the structure.
- **Based on these findings two activity surveys of Lower Farm Cottage and one of the outbuilding were recommended to confirm the presence/absence of bats.** These surveys took place June and July 2023. Following the emergence of bats from Building 1 during the first survey a third survey was undertaken.
- **Building 1 – Lower Farm Cottage was CONFIRMED to house summer, day roosts for the following species of bats: brown long-eared, common pipistrelle and soprano pipistrelle.**
- Building 2 – the outbuilding, no bats were recorded emerging.
- **Bats constitute an ecological constraint to the proposed works. Subject to receiving planning approval, it will be necessary to apply for and obtain a European Protected Species Licence (EPSL) from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, to legally allow the proposed works to take place.**
- **No building works should take place until an EPSL has been issued.**
- Mitigation and habitat enhancement recommendation are set out in section 5.2.

# Introduction

## 1.1 Introduction

In June 2023 Daniel Ahern Ecology Ltd were commissioned Mr & Mrs Gates to undertake a Preliminary Roost Assessment (PRA), also known as a bat inspection survey, of Lower Farm Cottages in Manningford Abbots.

## 1.2 Site Location and Description

Lower Farm Cottages, hereafter referred to as 'the Site', is located in Manningford Abbots in Wiltshire. (NGR SU 27854 40587). An aerial photo view of the site can be seen in Figure 1 below.

Figure 1. Red line boundary for the Site.



## 1.3 Development Proposals

The proposals are:

- To re-roof, replacing slated with thatch, the northern face of the roof
- Refurbish the cottages, turning them into a single dwelling

## 1.4 Survey Objectives

The objectives of the bat inspection survey comprise the following:

- Assess the buildings within the survey area for the potential for bats to use them to roost.

The objectives of the bat activity survey comprise the following:

- Confirm the presence/absence of bats using the buildings;
- Confirm which species of bat and in what number are present; &
- Confirm how bats are using the building.

## 1.5 Quality Assurance

All ecological surveys are led by Ecologists who are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) at the appropriate level. By joining the CIEEM staff sign up to a professional code of conduct.

# Methodology

## 2.1 Preliminary Roost Assessment

An internal and external bat inspection was undertaken on 8th June 2023 by Daniel Ahern (Natural England Class 2 bat licence - 2020-44508-CLS-CLS). The inspection followed methods described in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (third edition) (Collins; 2016).

## 2.2 Desk Study

A desk study was carried out with the aim of supplementing the field survey results by collating and reviewing existing ecological information relevant to the site and the local area.

Bat European Protected Species Licences (EPSL) records from within 2km of the site were obtained from the MAGIC website, in addition details of designated sites, within 7.5 km of the site, relating to Annex II bat species were also obtained from the same website.

## 2.3 External Inspection

The exterior walls and roof of the building were viewed from ground level and features that provide potential bat access points or roosting places were noted and referred to as potential roost features (prf). Features that were looked for include:

- cracks/holes in mortar;
- gaps between ridge tiles and ridge and roof tiles;
- gaps in soffit boxes;
- gaps under wooden cladding; and
- gaps around the eaves.

Areas where bat droppings may accumulate, such as on the ground, ledges, windowsills and walls, were also inspected.

Any features that may potentially be used by bats were identified and any evidence of bat activity, as listed below, were noted.

## 2.4 Internal Inspection

The internal inspection comprised a thorough search of the roof void within the building, see Figure 2 below for a floor plan, for evidence indicative of past or current use by roosting bats. Direct evidence of bat presence may include:

- live bats or bat corpses;
- droppings;
- bat sounds;
- scratch marks;

- urine stains; and
- clean, cob-web free gaps around potential entrance points.

Potential access points and roosting sites were also noted.

In any roof voids, a systematic search for evidence of bat presence was undertaken, concentrating on roof beams, ceiling joists and exposed surfaces.

Any evidence was recorded.

## 2.5 Bat Roost Assessment

The findings of the internal and external surveys inform an assessment of the structure, classifying the bat roost potential it has. The different classifications are set out in Table 1 below.

Table 1: Bat Roost Assessment Classifications

| Classification | Description |
|---|---|
| NEGLIGIBLE | Negligible habitat features on site likely to be used by roosting bats |
| LOW | A structure with one or more potential roost sites which could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter or protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats, (ie unlikely to be suitable for hibernation or maternity). |
| MODERATE | A structure with one or more potential roost sites which could be used by bats due to their size, shelter, protection, conditions and suitable surrounding habitat but unlikely to support a roost of high conservation status. |
| HIGH | A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and suitable surrounding habitat. |
| CONFIRMED | Evidence of bats roosting in the building or structure is recorded, bats, their droppings or feeding remains. |

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## 2.6 Equipment

The following equipment was available to use during the survey:

- close-focusing binoculars;
- P7 Lenser torch;
- camera;
- Depstech endoscope.

## 2.7 Dusk emergence survey

A single bat activity survey was undertaken in Spring 2023, see Table 2, below, for details.

Table 2. Dusk Emergence Survey Dates.

| Survey date | Building surveyed | Number of surveyors | Start time | Finish time | Temperature $^{0}$ |
|---|---|---|---|---|---|
| 26/06/2023 | Building 1 & 2 | 3 | 21:00 | 23:00 | 17 |
| 11/07/2023 | Building 1 | 3 | 20:50 | 22:50 | 13 |
| 25/07/2023 | Building 1 | 3 | 20:30 | 22:30 | 16 |

The dusk emergence surveys commenced approximately 30 minutes before sunset and continued for 90 minutes after sunset.

A combination of three surveyors and 3 video cameras with infra-red illuminators were present in order to survey all visible angles of the building. The time, location, number and species were recorded for each bat leaving or returning to a roost. Bat passes by foraging or commuting bats encountered during the survey were also recorded using standardised forms.

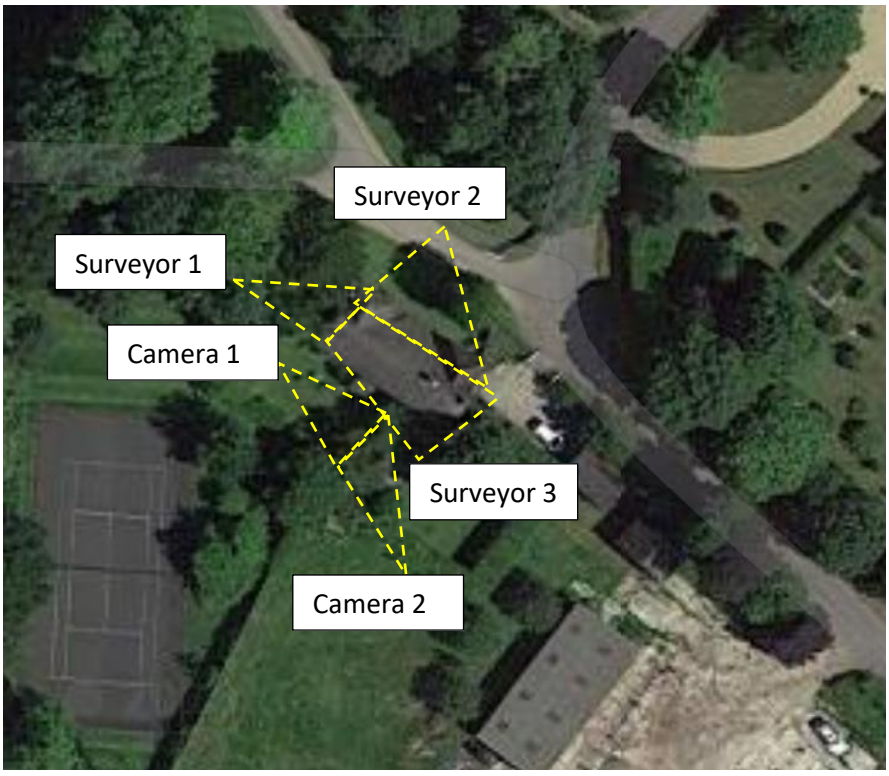
Equipment used:

- Anabat Scout bat detectors;
- Anabat Swift bat detectors;
- Canon XA30 & XA35 camcorders with 850 nm infra red illuminators; &
- Anabat Insight sound analysis software.

Location of the surveyors:

The surveyors and two cameras were located in such a way as to achieve coverage of all parts of building 1 and 2 during the surveys. See Figure 2, below, for the locations.

Figure 2. The location and viewing angles of the surveyors.




## 2.8 Limitations

The data provided by the online resources were not exhaustive. It is possible that bat species not included in the data search occur within the vicinity of the proposed development site.

The internal and external inspection survey provides a snapshot of conditions at the time of survey. Bats are mobile creatures that will move into and out of areas.

The details within this report will remain valid for a period of 12 months; beyond that date it is advised that a review of ecological conditions is undertaken.

# Results

## 3.1 Preliminary Roost Assessment

## 3.2 Desk Study

### 3.2.1 Statutory Conservation Sites

Records of Special Areas of Conservation relevant to Annex II bat species within 7.5km of the Site are presented in Table 3 below.

Table 3: Statutory Designated Sites.

| Name | Area (ha) | Designation | Description | Distance & direction from the Site |
|---|---|---|---|---|
| **Statutory sites** | | | | |
| None | N/A | N/A | N/A | N/A |

Key

SAC – Special Area of Conservation

### 3.2.2 Bat Species

Records of bat EPSL within 2km of the Site are presented in Table 4 below recorded within the last 30 years.

Table 4: Bat EPSL Records within 1km of the Site

| EPSL Reference | Species named | Distance & direction from the Site |
|---|---|---|
| 2019-42307-EPS-MIT | brown long-eared, common pipistrelle | 1,192m north |

## 3.3 Bat Inspection Survey

The results of the building inspection are set out in Table 5, below.

Table 5: Bat inspection External & Internal Survey Results

| Building | External description | Internal description |
|---|---|---|
| Building 1 – Lower Farm Cottage | The building was comprised of two semi-detached cottages.<br>The roofs were of a dual pitch design with hips rather than gable ends.<br>The roofs were predominantly clad with thatch, on the northern face there were two areas clad with slates.<br>The soffits and barge boards were constructed from wood. There were PRF's found around the lead flashing and degradation of the soffit boxes.<br>No evidence of bats was recorded externally. | A single roof void was accessible in the eastern part of the building.<br>The underside of the thatch cladding was visible throughout.<br>No roof void was present in the western half of the building.<br>No evidence of bats was recorded internally within either part of the building.. |
| Building 2 – outbuilding | A small, rectangular garden store.<br>The roof was of a dual pitch design and clad with clay tiles.<br>Garden plants had encroached over the majority of the roof.<br>The walls were constructed from brick and in good repair. | The building had historically been used as a garden store.<br>The underside of the roof cladding was visible throughout.<br>No evidence of bats was recorded externally. |

| | | |
|---|---|---|
| | No evidence of bats was recorded externally. | |

Results of the bat roost assessment are set out in Table 6 below.

Table 6: Bat Roost Potential for the Buildings Surveyed

| Building | Bat Roost Potential | Reason | Recommendations |
|---|---|---|---|
| Building 1 – Lower Farm Cottage | **MODERATE** | • A number of PRF were recorded in the external cladding of the northern roof face.<br>• No evidence of bats recorded. | Two activity surveys are recommended between 1st May and 31st August. |
| Building 2 - outbuilding | **LOW** | • A low number of PRF were recorded in the roof.<br>• No evidence of bats recorded. | One activity survey is recommended between 1st May and 31st August. |

## 3.4 Activity Survey

There was good weather with a light breeze throughout the surveys.

The results of the dusk activity surveys are set out in Table 7, below.

Table 7. Bat Activity Survey Results – Bat Emergence

| Survey date | Site | Survey type | Bats recorded | Number recorded |
|---|---|---|---|---|
| 26/06/2023 | Building 1 | Dusk Emergence | brown long-eared<br>common pipistrelle<br>serotine<br>soprano pipistrelle | 1<br>1<br>1<br>4 |
| | Building 2 | Dusk Emergence | None | N/A |
| 25/07/2023 | Building 1 | Dusk Emergence | brown long-eared<br>common pipistrelle<br>soprano pipistrelle | 6<br>2<br>1 |
| 06/08/2023 | Building 1 | Dusk Emergence | brown long-eared<br>common pipistrelle | 7<br>2 |

Details of bats recorded across the wider site are set out in Table 8, below.

Table 8. Bat Activity Survey Results – Ambient bat activity

| Survey date | Site | Survey type | Bats recorded | Number recorded |
|---|---|---|---|---|
| 26/06/2023 | Building 1 & 2 | Dusk Emergence | common pipistrelle<br>serotine<br>soprano pipistrelle | 3<br>1<br>8 |
| 11/07/2023 | Building 1 | Dusk Emergence | common pipistrelle<br>serotine | 3<br>1 |
| 25/07/2023 | Building 1 | Dusk Emergence | common pipistrelle<br>noctule<br>serotine<br>soprano pipistrelle | 7<br>2<br>2<br>3 |

# Discussion and Requirements

## 4.1 Discussion

### 4.1.1 Desk based assessment results

The desk-based assessment returned no records for SAC relating to Annex II bats within 7.5km of the site. A single EPSL had been granted within 2km of the site, which covered brown long-eared and common pipistrelle.

Based on the current development proposals it is not believed that any of the works will have a significant impact on the confirmed local roosts.

### 4.1.2 Bat Activity Survey results

**Building 1 – Lower Farm Cottage was CONFIRMED to house summer, day roosts for the following species of bats: brown long-eared, common pipistrelle and soprano pipistrelle.**

Building 2 – the outbuilding, no bats were recorded emerging.

**The presence of bats in Building 1 constitutes an ecological constraint to the proposed roofing works.**

The findings of this report are valid for 12 months from the issue.

## 4.2 Recommendations

**Bats constitute an ecological constraint to the proposed works. Subject to receiving planning approval, it will be necessary to apply for and obtain a European Protected Species Licence (EPSL) from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, to legally allow the proposed works to take place.**

**No building works should take place until an EPSL has been issued.**

Mitigation measures:

- Prior to any works taking place on site two Harlech woodstone bat boxes will be erected on two trees adjacent to the site at a height at least 3m above the ground.
- The buildings on site will be inspected by a Natural England C2 licenced ecologist immediately prior to any demolition/roof strip. The ecologist will use a flexible endoscope to assist with this survey.
- The "demolition" phase of the proposed development will take place between late March and late October.
- Should any bats be encountered during the supervised strip of the building they will be collected by the Natural England C2 licenced ecologist and moved to one of the pre-installed bat boxes on an adjacent tree.
- A Natural England C2 licenced ecologist will oversee the building strip, when the fabric in which bats were recorded roosting, is removed ie the roof of the northern side of the cottages. This will ensure best practice is adhered to by the building contractor.

Habitat enhancement measures:

- Recommendations for habitat enhancement will be added to the project design. These will include the installation of a multi-chamber bat box on to a mature tree adjacent to the house, this should be at least 3m above ground level.

- The two Harlech bat boxes will be retained as mitigation for the loss of the roost spaces being used by pipistrelle.

## References

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

## Photographs

Photo 1 – Emergence points of pipistrelle from the northern side of Building 1.



Photo 2 – Emergence point of brown long-eared bats on Building 1.



Photo 3 – Underside of the roof in Building 1



Photo 4 – Southern side of Building 1.



**The findings of this report are valid for 12 months from the issue.**

## Appendix 1

# Legislation and Policy

## 5.1 Legislation

### 5.1.1 Bats

All species of bat found in the UK are listed under Schedule 5 of *The Wildlife and Countryside Act 1981* (as amended 2018) and are afforded protection under Section 9(1), Section 9(4)(b&c) and Section 9(5) of the Act. Under this legislation, a person is guilty of an offence if he intentionally or recklessly:

- Kills or injures any bat;
- Disturbs any bat while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructs access to any structure or place which any bat uses for shelter or protection.

Bats are afforded additional protection through their inclusion on Schedule 2 of *The Conservation of Species and Habitats Regulations 2017* (as amended). Under Part 3 of this legislation, a person is guilty of an offence if he:

- Deliberately captures, injures or kills a bat;
- Deliberately disturbs a bat; or
- Damages or destroys a bat breeding site or resting place.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young, migrate or hibernate. It also includes any disturbance likely to affect significantly the local distribution or abundance of the species. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as flight corridors and foraging areas.

### 5.1.2 Breeding Birds

Wild birds, their nests and eggs, are afforded protection under Section 1(1) of *The Wildlife and Countryside Act 1981* (as amended). Under this legislation, a person is guilty of an offence if he intentionally:

- Kills, injures or takes any wild bird;
- Takes, damages or destroys the nest of a wild bird included in Schedule ZA1;
- Takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- Takes or destroys an egg of any wild bird.