

Bat Hibernation Survey Report

Sheepbank Farm, Littleborough

Reference: 82-065-R2-1

Date: March 2025





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EXECUTIVE SUMMARY

Site Address	Sheepbank Farm, Littleborough, OL15 0LH
Coordinates	E 394874, N 415324
Site Area	Approximately 0.1 ha
Current Site Use	The site comprised a farmhouse, comprising a two-storey main building with two one-storey annexes adjoined (B1), and a hardstanding track leading to the property.
Proposed Development	Development proposals include the development of an extension to the two-storey main building and one of the one-storey annexes.
Results	No bats were observed hibernating in the farmhouse during the crevice inspection and no evidence of bats was recorded. In addition, no bats were recorded during the static surveys.
Conclusions and Recommendations	Due to no bats, and no evidence of bats being recorded during the surveys, no further surveys, mitigation, or licensing with regards to hibernating bats is required. Summer surveys are scheduled to assess the site for summer roosting.



Table of Contents

EXECUTIVE SUMMARY	3
1. INTRODUCTION	5
1.1. Background	5
1.2. Proposed Development.....	5
1.3. Site Location	5
1.4. Previous Surveys	6
1.5. Objectives	6
2. METHODOLOGY	7
2.1. Hibernation Surveys	7
2.2. Data Analysis	7
2.3. Survey Limitations	7
3. BAT HIBERNATION SURVEY RESULTS	8
3.1. Hibernation Surveys	8
3.2. Temperature and Humidity	8
3.3. Interpretation	9
4. REFERENCES	10



1. INTRODUCTION

1.1. BACKGROUND

E3P has been instructed by Rushtons Developments Limited to undertake Bat Hibernation Surveys at Sheepbank Farm, Littleborough, hereafter referred to as “the site”.

The report was produced by Principal Ecologist BSc (Hons), MEnvSc, CEnv, MCIEEM, who has over eight years of experience undertaking Bat Surveys across the UK. Huw also holds a Class 2 Natural England Bat Licence.

1.2. PROPOSED DEVELOPMENT

Development proposals include the development of an extension to the two-storey main building and one of the one-storey annexes.

1.3. SITE LOCATION

The site is located southeast of Littleborough and northeast of Rochdale. The site is accessed by a track which joins Syke Road approximately 235 m south of the site. A barn building is located adjacent to the south of the site boundary, in proximity to the on-site farmhouse. The site is surrounded on all aspects by arable land which also comprises the broader landscape. Brearley Brook is located approximately 6 m west of the site boundary. Please refer to Figure 1 for the approximate site location.

Figure 1 **Approximate Site Location**





1.4. PREVIOUS SURVEYS

E3P undertook a Preliminary Roost Assessment on-site in December 2024 (report ref: 82-065-R1). The site comprised a vacant, two-storey, stone, farmhouse. Internally, on the upper floor, numerous crevices were identified within the stone walls, of which, a number extended deep into the walls. These features were assessed as having suitability for hibernating bats due to providing a cool and stable environment for winter torpor and hibernation. As a result, Hibernation Surveys were recommended. It was recommended that the surveys comprised crevice inspections using a torch and endoscope and be completed in mid-January and mid-February. The deployment of a static bat detector would also be required throughout these months.

1.5. OBJECTIVES

The objectives of the Bat Hibernation Surveys were to identify:

-  Any existing roosts within the site.
-  Potential impacts of the proposed development on bats.
-  The need for mitigation.

The survey findings are detailed in this report, along with any recommendations.



2. METHODOLOGY

2.1. HIBERNATION SURVEYS

Hibernation surveys were undertaken following guidance set out in Collins (2023). The hibernation surveys comprised crevice inspections and static monitoring. Two static detectors were deployed between 07th January 2025 and 26th February 2025. The batteries were changed to ensure the detectors were recording during the entirety of the monitoring period.

Surveys and crevice inspections using a torch and endoscope were undertaken by Principal Ecologist Huw Morgan, BSc (Hons), MCIEEM, MEnvSc, Principal Ecologist at E3P. Huw holds a Natural England Class 2 Bat Licence (2023-11717-CL18-BAT).

Inspections were undertaken on the following dates:

-  07th January 2025.
-  06th February 2025.
-  26th February 2025.

2.2. DATA ANALYSIS

An Annabat Express was used to record during the survey. Data was analysed using AnalookW. An Elitech Temperature and Humidity Data Logger was used to record the temperature and humidity changes at the site during the survey period, from which the average day and night temperature and humidity measurements were then calculated.

2.3. SURVEY LIMITATIONS

During the crevice inspections, not all potential roost features could be fully inspected as a small number of crevices extended deep into the wall at different angles, making inspection with an endoscope difficult. This has been taken into consideration during the assessment.

In addition, surveys were undertaken during what were predicted to be the coldest months of the year (January and February). The average overnight temperature the week preceding the first hibernation survey on the 18th of January 2024 was below 0°C. As winter hibernation surveys may disturb hibernating bats, visits were limited to the minimum required to gain the necessary information (Collins, 2023). Surveys were therefore undertaken in January and February only, which were anticipated to be the coldest months of the year. As per the guidance, cold weather in the week preceding the surveys is likely to result in larger numbers of bats entering hibernacula (Collins, 2023). Therefore, it is anticipated that if bats were utilising the building for hibernation, they would be identified during the first inspection and/or on the static detectors which were deployed for the duration of the hibernation surveys. As no interesting results were revealed during the surveys (e.g. rare species, larger numbers of bats) it was determined that further surveys were not required.



3. BAT HIBERNATION SURVEY RESULTS

3.1. HIBERNATION SURVEYS

During the crevice inspections within the upper floor of the farmhouse, no bats were identified hibernating or recorded during the static monitoring.

No bats were recorded hibernating within the farmhouse.

3.2. TEMPERATURE AND HUMIDITY

The average daytime temperature between 07th January and 26th February ranged from 0.6 to 11.3 degrees, and the average night temperature ranged from 0.8 to 9.9 degrees. The average daytime humidity between 07th January and 26th February ranged from 77.3% to 95.7%, and the average night humidity ranged from 78.3% to 92.2%. Please refer to Table 1 for further details on the average temperature and humidity measurements taken.

Table 1 Average Temperature and Humidity Measurements

DATE	AVERAGE DAY TEMPERATURE (°C)	AVERAGE NIGHT TEMPERATURE (°C)	AVERAGE DAY HUMIDITY (%)	AVERAGE NIGHT HUMIDITY (%)
07/01/25	2.9	2.2	77.3	80.9
08/01/25	2.0	1.9	80.1	80.3
09/01/25	1.0	1.0	79.8	80.5
10/01/25	0.6	0.8	80.5	81.1
11/01/25	1.1	1.1	82.2	82.3
12/01/25	2.3	2.3	83.2	83.9
13/01/25	3.5	3.8	84.6	85.0
14/01/25	6.0	6.2	89.6	89.8
15/01/25	7.9	7.5	88.3	88.4
16/01/25	6.5	6.7	84.5	84.8
17/01/25	6.2	6.3	85.3	85.4
18/01/25	5.0	5.4	81.5	83.9
19/01/25	3.0	3.4	80.9	82.3
20/01/25	3.5	3.5	83.0	83.8
21/01/25	4.5	4.4	86.0	86.8
22/01/25	5.0	5.0	86.4	86.3
23/01/25	4.9	5.1	86.8	86.3
24/01/25	6.1	5.1	81.5	83.4
25/01/25	4.6	4.1	77.5	78.3
26/01/25	4.0	4.3	83.6	85.6
27/01/25	4.8	5.1	83.0	85.0
28/01/25	6.0	5.8	87.4	86.5
29/01/25	6.1	5.7	83.9	82.1
30/01/25	5.1	5.0	80.9	80.8
31/01/25	5.0	4.9	83.6	83.2
01/02/25	5.0	4.9	82.3	82.4
02/02/25	4.8	5.1	81.2	83.3
03/02/25	6.2	6.2	84.7	84.3
04/02/25	7.1	6.9	84.5	83.9
05/02/25	6.1	6.2	81.8	82.1
06/02/25	5.2	4.7	80.5	82.7



DATE	AVERAGE DAY TEMPERATURE (°C)	AVERAGE NIGHT TEMPERATURE (°C)	AVERAGE DAY HUMIDITY (%)	AVERAGE NIGHT HUMIDITY (%)
07/02/25	3.6	3.4	82.1	82.5
08/02/25	2.9	3.1	85.3	86.3
09/02/25	4.0	3.8	90.1	88.8
10/02/25	3.1	3.2	88.5	88.6
11/02/25	3.2	3.0	89.9	89.2
12/02/25	3.5	3.3	88.9	88.6
13/02/25	2.9	2.7	82.1	82.5
14/02/25	2.6	2.7	79.9	81.0
15/02/25	3.0	3.1	85.7	86.2
16/02/25	2.9	2.7	85.4	84.4
17/02/25	2.2	1.8	81.2	80.4
18/02/25	1.8	1.5	80.1	80.5
19/02/25	2.3	3.2	84.2	89.1
20/02/25	9.8	8.0	95.7	92.2
21/02/25	11.3	9.9	89.2	88.2
22/02/25	9.5	9.0	84.5	82.5
23/02/25	8.3	8.8	86.0	89.0
24/02/25	9.2	8.7	83.6	81.7
25/02/25	7.3	7.2	80.3	80.5

3.3. INTERPRETATION

No bats were observed hibernating in the farmhouse during the crevice inspection or static surveys, and no evidence of bats including droppings or feeding remains were noted. Bats are known to rouse multiple times during their hibernation period to drink and forage, particularly during milder temperatures when the prospect of insects may be higher (Reason, P.F. and Wray, S., 2023). Bats are not thought to use B1 for hibernating purposes and therefore no further surveys, mitigation, or licensing with regard to hibernating bats is required.



4. REFERENCES

- ✧ Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th edition. The Bat Conservation Trust, London.
- ✧ E3P (2024). Preliminary Roost Assessment – Sheepbank Farm, Littleborough. (82-065-R1).
- ✧ Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

END OF REPORT