

# MANSE FARM, CUDWORTH.

# OS REF: SE 38962 09476.

# **BAT SURVEY REPORT.**

**Ref No: 240601.** 

Date: 30<sup>th</sup> August 2024.

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## **1. INTRODUCTION.**

1.1. There are plans for a conversion and change of use of three buildings at Manse Farm, Cudworth.

1.2. Whitcher Wildlife Ltd was therefore commissioned to carry out a bat survey of the site to establish whether there are any issues that may affect the proposed works.

1.3. The combined Preliminary Roost Assessment (PRA) and dusk emergence survey was carried out on 26<sup>th</sup> June 2024 and a second dusk emergence survey on the 23<sup>rd</sup> July 2024.

1.4. Appendices I and II of this report provides additional information on bats and nesting birds, the protection afforded to them and is designed to assist the reader in understanding the contents of this report.

## 2. SURVEY METHODOLOGY.

2.1. The buildings were thoroughly checked internally and externally for potential bat roosting sites by looking for the following signs: -

- \* Holes, cracks or crevices.
- \* Bat droppings.
- \* Prey remains.
- \* Staining on external walls.

2.2. Unless otherwise stated, all lofts were accessed and inspected using a high-powered torch and where necessary an endoscope.

2.3. A thorough external inspection was carried out from ground level for any gaps or openings in the roof and ridge tiles, behind soffits and fascia's and in the walls of the structure for suitable roost access points and field signs to indicate possible use by bats.

2.4. All windowsills, walls and the ground around the structure were checked for signs of bat droppings or staining to indicate possible use by bats. Where necessary, ladders were utilised to gain access within the limits of health and safety. Any access constraints encountered are outlined within the following report.

2.5. The PRA was carried out in line with Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> edition),* with an assessment of the buildings suitability for roosting bats made in accordance with these guidelines.

2.6. The subsequent dusk emergence and dawn return surveys were also conducted in accordance with Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> edition).* 

2.7. The initial survey was carried out by James Campbell MCIEEM and a team of experienced surveyors. Since 2003 James has had experience in a professional capacity as a Wildlife Consultant carrying out Ecology Surveys and Phase 1 Habitat surveys and is a full member of CIEEM. James holds licences with several licensing bodies including:-

- Natural England Survey Licences in respect of bats, great crested newts, water voles, badger class licence, white clawed crayfish and barn owls.
- Nature Scotland Licences in respect of bats and great crested newts.

• Natural Resources Wales Licences in respect of bats and great crested newts.

He has also successfully completed numerous courses run by CIEEM, BCT and FSC regarding protected species and in carrying out Phase 1 Habitat surveys. He is also confined spaces trained and qualified to NVQ Level 2 in tree climbing and aerial rescue.

## **3. SURVEY RESULTS.**

### 3.1. Data Search Results.

3.1.1. A desktop data search has been requested from the South Yorkshire Bat Group (SYBG) for all records of bats and their roosts within a 2km radius of the survey area.

3.1.2. The SYBG data search returned various records of bats, mainly *Pipistrellus* sp. as well as daubentons and noctules. The records include both roost records and field records.

3.1.3. The most relevant is a record of a common pipistrelle roost located approximately 280m to the south west, where three bats emerged from the building and a Natural England EPS licence was applied for.

3.1.4. There are a number of bat records from Carlton Marsh, as nature reserve located just over 1km from the survey area. These are mostly field records, although there is a record of a daubentons bat found hibernating.

### **3.2. Site Description.**

3.2.1. The survey area comprises three buildings at Manse Farm, Cudworth. The location of the surveyed buildings are shown on the aerial photograph below.



3.2.2. The immediate surrounding area comprised built up areas, mainly roads and residential housing with some private gardens.

3.2.3. Building 1 was a small two storey stone agricultural building with a lined pitched stone tile roof with no loft space. The building was attached to two other single storey buildings externally on the eastern and western elevation. Internally the building has numerous rooms and windows and doors which are usually well sealed. The building was currently used for storage.



3.2.4. Building 2 was a three storey stone building with a pitched stone tiled roof with no lining. Internally the building has numerous rooms and windows and doors which are usually well sealed. The building was currently used for storage.



3.2.5. Building 3 was a single storey brick building with a pitched blue slate roof with no lining. The building was attached to the eastern elevation Building 2 and was open on the eastern elevation. Internally the building was used for storage.



#### 3.3. Preliminary Roost Assessment.

#### 3.3.1. Building 1.

3.3.1.1. The brick walls of the building are largely in good condition, with the exception of some occasional gaps between the stonework, shown below, leading into the cavity wall. These may be used by roosting bats, however some are very low down and the poor condition of the roof leaves the cavity exposed to rainfall, making it significantly less likely that this feature would be used regularly by roosting bats.



3.3.1.2. The roof of the building is in poor condition, broken in places leaving the internals extremely exposed and few opportunities for bats to roost. The building does not have any soffits or fascia boards.

3.3.1.3. Internally no loft space is present and as noted above, the internals are extremely exposed through broken windows and gaps in the roof. The internals of the building are not ideal for roosting bats.



3.3.1.4. No bat field signs such as staining, droppings or prey remains were found within the survey area.

3.3.1.5. Overall, the building is assessed as providing **moderate** potential for roosting bats in accordance with the Bat Conservation Trust Good Practice Guidelines 4<sup>th</sup> Edition. The roosting potential is limited by the location of the building in a built up area that is well lit and with limited foraging and commuting habitats in the immediate surrounding area. The building has opportunities for a number of individual bats or a small day roost, but does not provide conditions that would a roost of more significant conservation status. The building does not provide suitable habitat for hibernating bats with any roosting opportunities being exposed fluctuating temperatures and humidity.

3.3.2. Building 2.

3.3.2.1. The brick walls of the building are largely in good condition, with the exception of some occasional gaps between the stonework mainly on the west elevation, shown below, leading into the cavity wall.



3.3.2. The roof of the building is in poor condition, broken in places leaving the internals extremely exposed and few opportunities for bats to roost. The building does not have any soffits or fascia boards.

3.3.3. Internally no loft space is present and as noted above, the internals are extremely exposed through broken windows and gaps in the roof. The internals of the building are not ideal for roosting bats.



3.3.4. No bat field signs such as staining, droppings or prey remains were found within or around this building.

3.3.3.2.2. Overall, the building is assessed as providing **moderate** potential for roosting bats in accordance with the Bat Conservation Trust Good Practice Guidelines 4<sup>th</sup> Edition. The roosting potential is limited by the location of the building in a built up area that is well lit and with limited foraging and commuting habitats in the immediate surrounding area. The building has opportunities for a number of individual bats or a small day roost, but does not provide conditions that would a roost of more significant conservation status. The building does not provide suitable habitat for hibernating bats with any roosting opportunities being exposed fluctuating temperatures and humidity.

3.3.4. Building 3.

3.3.4.1. The walls of Building 3 are generally in good condition with few opportunities for roosting bats.

3.3.4.2. The roof is in fair condition, but does have some occasional gaps under the tiles, including the ridge and ends of the tiles at the top of the gable end. There is no roof lining under the tiles, limiting any bat roosting potential. The building is open along one side and is open to the underside of the roof tiles and therefore is generally open and draughty.



3.3.4.3. No bats or bat field signs were identified anywhere around or within this building.

3.3.4.4. Overall, the building is assessed as providing **low** potential for roosting bats in accordance with the Bat Conservation Trust Good Practice Guidelines 4<sup>th</sup> Edition. The roosting potential is limited by the location of the building in a built up area that is well lit and with limited foraging and commuting habitats in the immediate surrounding area. The building has opportunities for individual opportunistic bats, but does not provide conditions that would a roost of more significant conservation status. The building does

not provide suitable habitat for hibernating bats with any roosting opportunities being exposed fluctuating temperatures and humidity.

3.3.5. No active birds nests were found within the buildings, however they are suitable for nesting birds.

### 3.4. Dusk Emergence Survey – 26th June 2024.

3.4.1. As the buildings were assessed as having potential for roosting bats, dusk emergence surveys were undertaken in line with the Bat Conservation Trust Good Practice Guidelines 4<sup>th</sup> Edition.

3.4.2. The survey was undertaken by a team of ecologists led by James Campbell MCIEEM, who holds a level two Natural England survey licence in respect of bats (2015-10823-CLS-CLS). He was accompanied by two other Natural England licence holders and one other surveyor, who is experienced in undertaking bat surveys.

3.4.3. The survey was carried out on the 26<sup>th</sup> June 2024. The evening was warm, with a temperature of 23°C at the start of the survey and a wind measuring 1 on the Beaufort scale. Sunset was at 21:39 and the survey lasted from 21:24 until 23:09.

3.4.4. All surveyors were equipped with Batbox Duet detectors and two-way radios. Four Anabat recorders were deployed around the site to record bat activity for subsequent computer analysis using Analook software.

3.4.5. Night Vision Aids (NVAs) were deployed covering all potential features. In this case Whisker infrared camera, along with Nightfox XB5 850NM infrared torches were situated covering all aspects of the buildings. The below photographs show the view of each camera and clear visibility at the conclusion of the survey.













3.4.6. The aerial photograph below shows where the Surveyors (S) were positioned. The location and viewing angles of the NVAs are shown in red.



3.4.7. During the survey the occasional common pipistrelle bat was observed flying from the adjacent garden to the north and flying along the track that extends along the north and east sides of the buildings. One two occasions the bats were observed flying over the buildings into the central courtyard with Surveyors 3 and 4.

3.4.8. The Anabat recordings reflected the findings of the surveyors, with the following bat calls recorded on each Anabat:

Anabat 1:

| Species                                      | Count |
|--|-------|
| Common pipistrelle Pipistrellus pipistrellus | 4     |

Anabat 2:

| Species                                      | Count |
|--|-------|
| Common pipistrelle Pipistrellus pipistrellus | 4     |

Anabat 3:

| Species                                      | Count |
|--|-------|
| Common pipistrelle Pipistrellus pipistrellus | 6     |

3.4.9. None of the surveyors nor the NVAs used observed any bats emerging from or entering the buildings during the entirety of the survey.

#### 3.5. Dusk Emergence Survey – 23<sup>rd</sup> July 2024.

3.5.1. As Buildings 1 and 2 were assessed as having moderate potential for roosting bats, a second dusk emergence survey was undertaken in line with the Bat Conservation Trust Good Practice Guidelines 4<sup>th</sup> Edition.

3.5.2. The survey was undertaken by a team of ecologists led by Ruth Georgiou BSc, MCIEEM, who holds a level two Natural England survey licence in respect of bats (2015-11823-CLS-CLS). She was accompanied by an experienced assistant.

3.5.3. The survey was carried out on the  $23^{rd}$  July 2024. The evening was mild, with a temperature of 18°C at the start of the survey and a wind measuring 2 on the Beaufort scale. Sunset was at 21:16 and the survey lasted from 21:01 until 22:46.

3.5.4. Both surveyors were equipped with Batbox Duet detectors and two-way radios. Four Anabat recorders were deployed around the site to record bat activity for subsequent computer analysis using Analook software.

3.5.5. Night Vision Aids (NVAs) were deployed covering all potential features. In this case Whisker infrared camera, along with Nightfox XB5 850NM infrared torches were situated covering all aspects of the buildings. The below photographs show the view of each camera and clear visibility at the conclusion of the survey.













3.5.6. The aerial photograph below shows where the Surveyors (S) were positioned. The location and viewing angles of the NVAs are shown in red.



3.5.7. The findings during this survey were similar to the first survey, although the few bats that were observed stayed for a longer length of time flying up and down the tracks along the north and east of the buildings. All bats were identified as common pipistrelle bats, with only three bats observed flying into the central courtyard with Surveyor 1.

3.5.8. The Anabat recordings reflected the findings of the surveyors, with the following bat calls recorded on each Anabat:

#### Anabat 1:

| Species                                      | Count |
|--|-------|
| Common pipistrelle Pipistrellus pipistrellus | 7     |

Anabat 2:

| Species                                      | Count |
|--|-------|
| Common pipistrelle Pipistrellus pipistrellus | 25    |

Anabat 3:

| Species                                      | Count |
|--|-------|
| Common pipistrelle Pipistrellus pipistrellus | 22    |

3.54.9. None of the surveyors nor the NVAs used observed any bats emerging from or entering the buildings during the entirety of the survey.

### 4. EVALUATION OF FINDINGS.

4.1. The PRA assessed Buildings 1 and 2 as providing moderate **potential** for roosting bats, and Building 3 as providing **low** potential for roosting bats. This assessment was based on the bat roosting features that present in the buildings as well as the location of the buildings in a landscape context, with limited foraging or commuting habitats available in such an urban and built up area .Only the garden to the north provided any suitable habitat in the vicinity of the survey area. This assessment was reflected in the findings of the two dusk emergence surveys that were carried out, where very few numbers of bats were observed, all flying onto the site form the garden to the north, but not flying any further that the track boundaries of the site and very few bats flying any further beyond these tracks over the buildings. The bats were also limited to common pipistrelle bats that are one of the more light tolerant bat species

4.2. During the dusk emergence surveys, no bats were found to emerge from the building and as such, the proposed works are highly unlikely to have any impact on roosting bats.

4.3. The buildings provided suitable habitat for nesting birds during the nesting bird season, extending from March to August each year. Therefore, any works within this period may have an impact on nesting birds.

## **5. RECOMMENDATIONS.**

5.1. As no bats were found to be roosting within the buildings, there is no requirement for any further surveys, mitigation or licencing to cover the works.

5.2. Regardless, opportunistic bats can roost almost anywhere and therefore, it is recommended that due care still be taken during the works. In the unlikely event that any bats be identified, works should stop immediately and the undersigned contacted for further advice.

5.3. As birds may use the building to nest, it is recommended that the works take place outside of their nesting season, which extends from March to August inclusive. If works are to take place within nesting season, then they should be preceded by a nesting bird survey, undertaken by a suitably experienced surveyor. Any active nests found must be left undisturbed until the young have fledged and the nest is no longer in use.

5.4. It is recommended that new bat roosting and bird nesting features are incorporated into the converted buildings on the site in the form of integrated bat and bird boxes where feasible. Where this is no feasible, external bat and bird boxes should be fixed onto the walls, at least 3m above ground level and away from any direct external lighting where possible. At least two of each of these should be provided.

| Prepared by:                |                                    |
|-----------------------------|------------------------------------|
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| And                         |                                    |
| Ruth Georgiou. BSc, MCIEEM. |                                    |

| Checked by:                    |                                      |
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### 6. REFERENCES.

Bat Tree Habitat Key (2018) Bat Roosts in Trees: a guide for identification and assessment for tree-care and ecology professionals. Pelagic Publishing, Exeter CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester. Collins J. (ed.) 2023. Bat Surveys for Professional Ecologist: Good Practice *Guidelines (4<sup>th</sup> Edition)*. The Bat Conservation Trust, London. Department for Levelling Up, Housing and Communities (2023) National Planning Policy Framework (NPPF). Available at https://www.gov.uk/government/publications/national-planning-policy-framework--2 (Accessed: 15/04/2024). Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. English Nature, Peterborough. Natural Environment and Rural Communities Act 2006 Available at https://www.legislation.gov.uk/uksi/2019/579/contents/made (Accessed: 15/04/2024). The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 Available at https://www.legislation.gov.uk/uksi/2019/579/contents/made (Accessed: 15/04/2024). The Wildlife and Countryside Act 1981 (as amended). Available at http://www.legislation.gov.uk/ukpga/1981/69 (Accessed: 15/04/2024).

# Appendix I. BAT INFORMATION.

### Ecology

There are currently 18 species of bat residing in Britain, 17 of which of which are known to breed here. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to habitat change and shortage of food, caused by pesticides, as insects are their sole diet.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man-made structures and will readily use these to roost and to rear their young.

#### Surveys

During walkover surveys, bat roosts can be identified by looking for:

- Suitable holes, cracks and crevices within any building, tree or other structure.
- Bat droppings along walls, window cills, or on the ground.
- Prey remains, such as insect wings.

Further investigations can be made using endoscopes, by carrying out aerial inspections of trees or by conducting bat activity surveys during dusk and dawn over summer months.

#### Legislation

Bats are protected under Appendix II and III of the Bern Convention (1982), Schedule 5 and 6 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive (some species under Annex II), Annex II of the Conservation of Habitats and Species Regulations (2010) and EUROBATS agreement. Numerous species are also listed

under section 41 of the Natural Environment and Rural Communities Act (2006) making them species of principal importance.

All bats and their roosts are therefore protected in the UK. This makes it an offence to kill, injure or take any bat, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

The UK has designated maternity and hibernacula areas as Special Areas of Conservation (SAC's) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number of bat species and the habitats which support them.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

## Appendix II. NESTING BIRD INFORMATION.

#### Ecology

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub but others are ground nesting or prefer man- made structures or buildings.

#### Surveys

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

#### Legislation

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; 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, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after "intentionally" the words "or recklessly".