Whitcher Wildlife Ltd.
Ecological Consultants.

BADGER HEY FARM.

OS REF: SE 06395 12230.

BAT SURVEY.

Ref No: **210866.**

Date: **25th August 2021.**

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1. INTRODUCTION.

1.1. The owners of Badger Hey Farm have plans to demolish the building and build another dwelling in the same location.

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

1.3. This survey was carried out on 17th August 2021 and this report outlines the findings of that survey and makes appropriate recommendations.

1.4. Appendix I of this report provides additional information on bats and is designed to assist the reader to understand the contents of this report.

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2. SURVEY METHODOLOGY.

2.1. The structure was checked for potential bat roosting sites in line by looking for the following signs: -

* Holes, cracks or crevices.
* Bat droppings.
* Prey remains.

2.2. A thorough external inspection was carried out from ground level for any gaps or openings of the structure which may provide suitable roost access points and field signs to indicate possible use by bats.

2.3. All 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.

2.4. All survey work was carried out in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*, with an assessment of the structures suitability for roosting bats made in accordance with these guidelines.

2.5. The subsequent dusk emergence survey was also conducted in accordance with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition).* It was conducted by a sufficient number of surveyors to cover all areas of roosting potential, in suitable weather conditions from fifteen minutes before sunset to at least an hour and half after.

2.6. The survey was undertaken by Mitchel Greenhalgh, a wildlife consultant with an array of experience in conducting wildlife surveys on a variety of flora and fauna in a professional capacity. Mitchel holds a BSc in environmental science from the University of Leeds and he is a qualifying member of CIEEM.

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3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. A data search for records of bats was submitted to the West Yorkshire Bat Group for records of bat roosts within the survey area and up to 2km in the surrounding area.

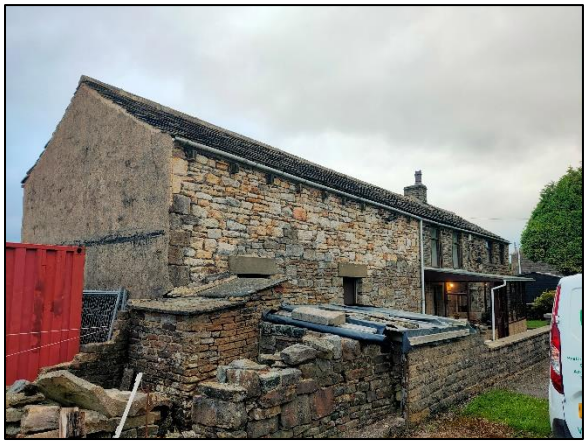
3.1.2. No records of bats were returned which were relevant to the survey area. The closest records are over 1km away within the village of Marsden.

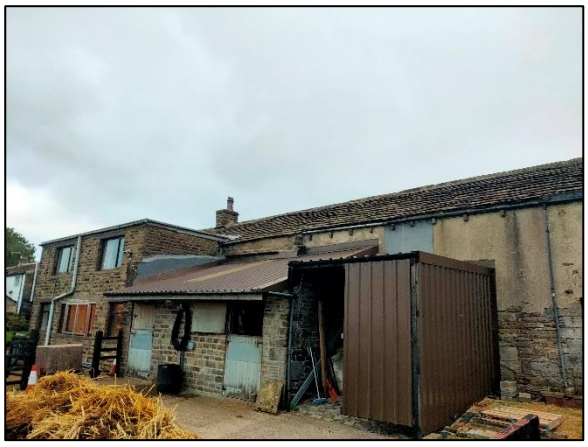
3.1.3. A full copy of the data search can be made available on request.

3.2. Site Description.

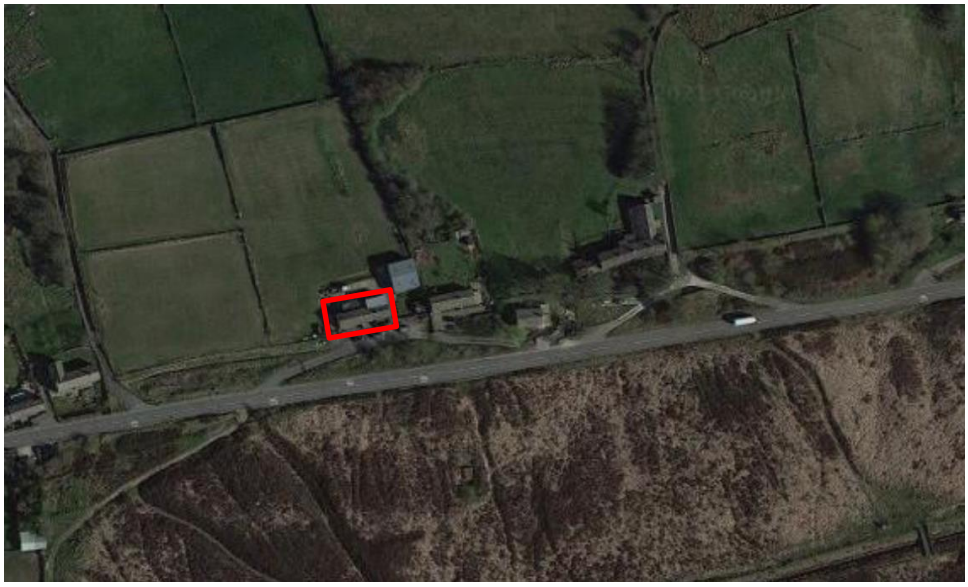
3.2.1. The surveyed area comprises Badger Hey Farm. The property is a large farmhouse with a small stables attached to the rear. The property lies around 1km to the east of Marsden, along the B6107.

3.2.2. The photographs below show the surveyed building from both the front and the rear.





3.2.3. The aerial photograph below shows the location of the property and the immediate surrounding area.



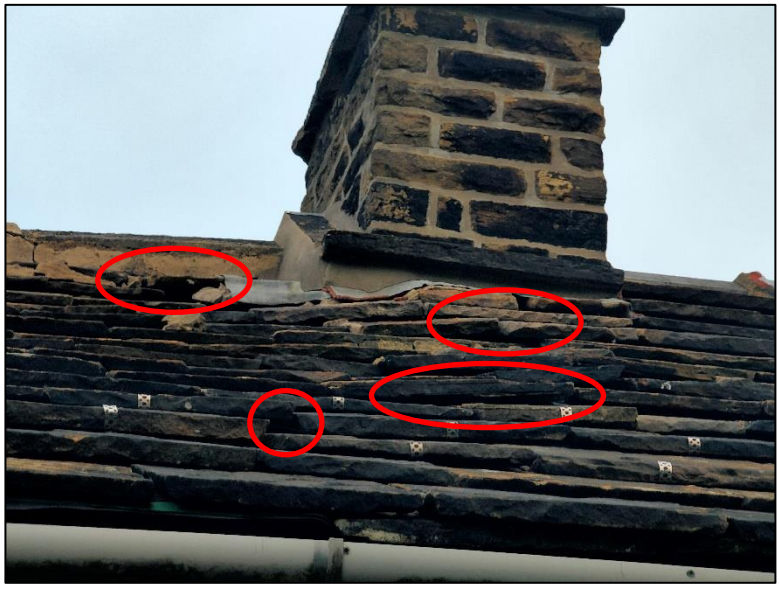
3.2.4. The surrounding area comprises arable land to the north and vast swathes of heathland to the south.

3.3. Daytime Survey Results.

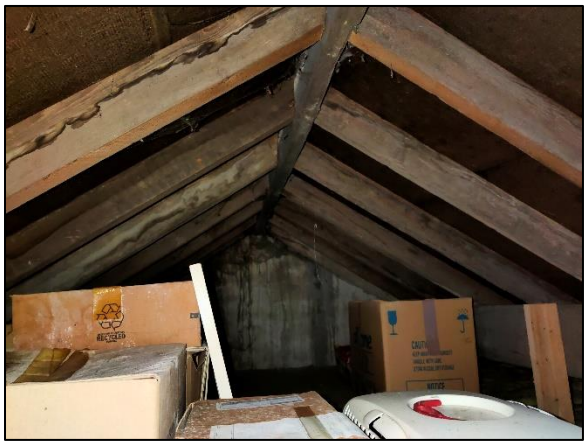
3.3.1. The property is split in half, with residential dwellings at the eastern side and farm building and stables at the western side. The residential side comprises stone brick walls and the farm side comprises stone walls. The main body of the property has a gabled roof along with a flat roofed extension and shed roofed attached stable block. The roof comprises large stone tiles throughout, with the exception of the sheet metal roof of the stable block.

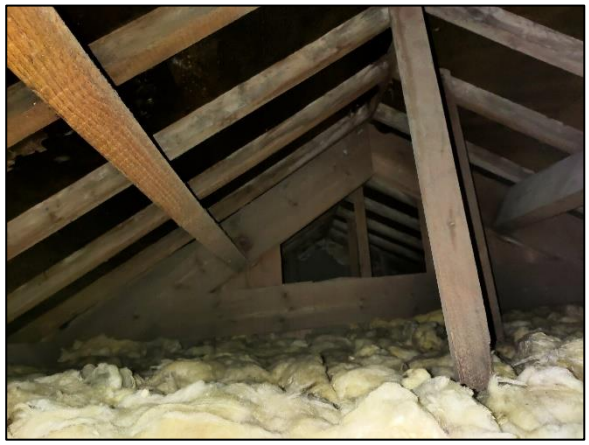
3.3.2. The property is two stories with a loft space which spans the length of the property; the loft is partitioned halfway through. Both loft spaces were inspected but the loft hatches are not big enough to fit through. The lofts were all lined internally with no light entering the loft space. No access points directly into the loft space were found and no bats, or their field signs, were identified.

3.3.3. Externally, however, the roof is in a generally poor condition, with lifted or warped tiles throughout much of the roof leaving gaps below the tiles. The property is situated high in the moors and exposed to frequent high winds and other bad weather, leaving the stone tiles vulnerable to erosion over the years. An example of this is shown in the photograph below.



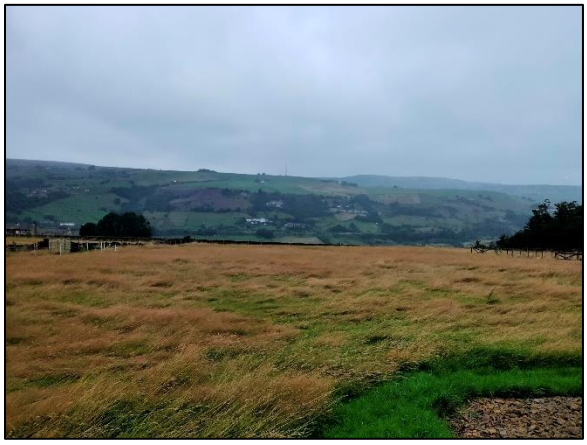
3.3.4. The eastern section of the loft is shown below on the left, and the larger western section is shown below on the right.





3.3.5. The walls of the property are in good condition and host no suitable features which may be used by roosting bats.

3.3.6. As mentioned above, the location of the property is located atop a valley in the moors and as such is frequently exposed to extreme weather such as high winds. There is very little suitable foraging habitat for bats with the surrounding area which comprises arable land and heathland. Photographs of the surrounding areas are shown below.



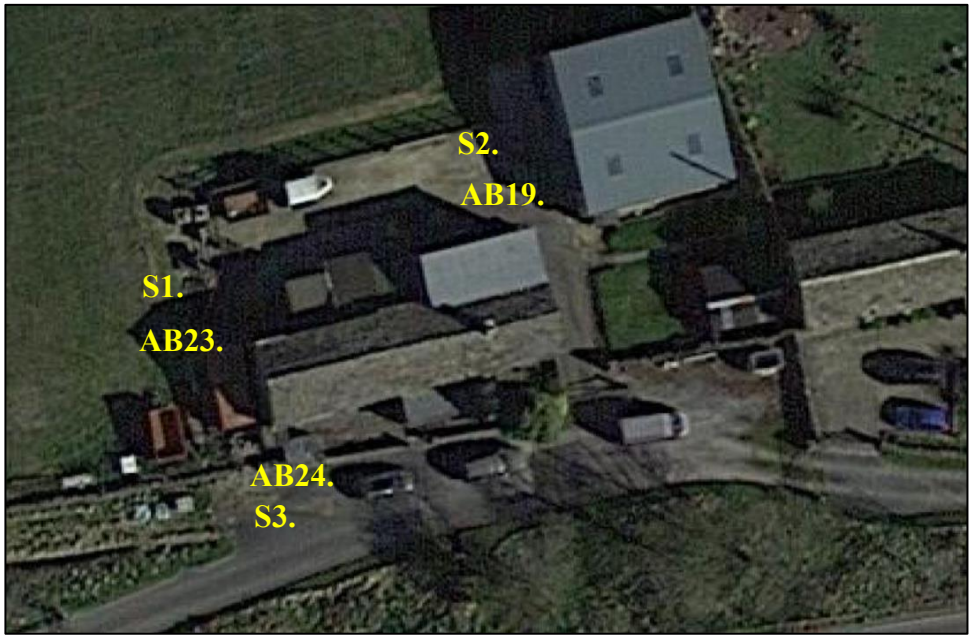
3.3.7. To summarise, no bats or their field signs, such as droppings or insect remains were identified and the surrounding area provides poor foraging grounds and generally inhospitable habitat for bats. There are also no records of bats within 1km of the property. However, the gaps under the roof tiles could prove to be suitable for roosting bats. Therefore, the property has been assessed as providing **low potential** for roosting bats, and as such, a dusk emergence was carried out.

3.4. Dusk Emergence Survey Results – 18th August 2021.

3.4.1. Three surveyors conducted the dusk emergence survey on the evening of 17th August 2021. The survey was undertaken by a team of ecologists led by Mitchel Greenhalgh, who has ample experience in conducting and leading bat surveys, along with two experienced assistants.

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

3.4.3. The aerial photograph below shows the building letters and where the Surveyors (S) and Anabats (AB) were positioned.



3.4.4. The evening was mild, with light cloud and a strong breeze, typical of the location, measuring 4 on the Beaufort scale. The temperature was 14°C at 20:10 and dusk was at 20:33. The survey commenced at 20:15 and lasted until 22:00.

3.4.5. No bats were seen or heard by any of the three surveyors during the entirety of the survey, and the Anabats positioned with the surveyors recorded no bat activity.

3.4.6. Summary of the Dusk Emergence Survey Results.

No bats were seen or heard by any surveyor, and the Anabats did not record any bat activity whatsoever.

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4. EVALUATION OF FINDINGS.

4.1. The building was assessed as providing a **low potential** for roosting bats due to the presence of some gaps below the roof tiles. However, during the dusk emergence survey, no bats were seen to emerge from the building and no other bat activity was recorded within the survey area.

4.2. A comprehensive assessment of the bat foraging habitat on the site could not be undertaken during this daytime survey. However, the surrounding land comprises almost entirely arable land and heathland which constitutes very poor foraging habitat for bats. Therefore, the immediate surrounding area was assessed to provide a **low value** bat foraging habitat. Regardless, the proposed works will not affect the surrounding habitat and as such, the works will have **no impact** on any foraging habitat.

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5. RECOMMENDATIONS.

5.1. Badger Hey Farm is assessed as having **low potential** for roosting bats. Therefore, in line with the Bat Conservation Trust Good Practice Guidelines, Bat Surveys for Professional Ecologists, 3rd Edition, it was recommended that a dusk emergence survey was carried out within the bat activity season, which spans from May to August each year.

5.2. The survey was carried out on the 17th of August and no bats were seen to emerge from the building. Therefore, no further surveys or licenses are required prior to works commencing.

5.3. To compensate for the loss of potential habitat, it is recommended that at least one bat roof tile is incorporated into the design of the new property.

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Prepared by:	
Mitchel Greenhalgh BSc	Date: 25th August 2021.

Checked by:	
Jenny Whitcher Roebuck MCIEEM.	Date: 26th August 2021.

6. REFERENCES.

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Anon. 1995. ***Biodiversity: the UK Steering Group report. Vol 2: Action Plans.*** HMSO, London.

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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 (SACs) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number 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.

Toolbox Talk: Bats

Whitcher Wildlife Ltd
Ecological Consultants

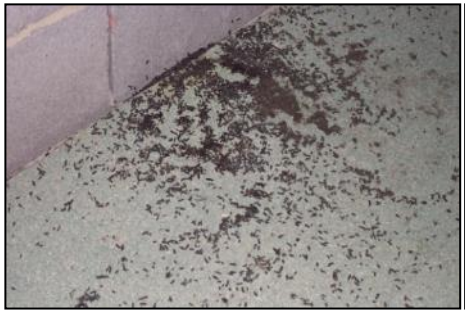
18 species of bat have been recorded in Britain, 17 of which are known to breed here.

Identification.

Some species can be extremely difficult to identify in the hand and even more so in flight.

Species such as the Brown Long Eared bat pictured above can be more easily identified in the hand. Whereas, the Common Pipistrelle and Soprano Pipistrelle are more difficult to identify.

Bats are more easily identified by field signs such as droppings or feeding remains.



Habitat.

Bats are highly specialised creatures and require a relatively narrow range of suitable conditions in order to sustain a viable population. Bats require an abundant supply of flying insect food in places where they can easily be caught and they need safe and reliable roosting sites, particularly during breeding and hibernation.

Bats are heavily dependent on buildings and trees for their roost sites and therefore extremely susceptible to disturbance from human activities. Development schemes can also isolate bat populations and sever roost sites from favoured feeding areas by removing hedgerows or other features used as commuting routes.

Bats are susceptible to disturbance and have been known to abandon roost sites after instances of disturbance. The effects of disturbance are more pronounced at different times of year. Serious disturbance during breeding can result in the breeding females being killed or the abandonment and subsequent starvation of dependant young. Repeated disturbance during winter hibernation can result in the death of adult animals from starvation.

The level of protection afforded to bats in the UK and European legislation reflects the fact that it is now generally accepted that bats have declined substantially, maybe by as much as 60%, over recent years. Most species are declining and vulnerable with all species being protected.

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 occasionally the roofs of buildings.

Certain species, particularly Pipistrelle, can quickly adapt to manmade structures and will readily use these to roost and to rear their young.

Legislation.

Bats and their roosts are fully protected at all times (whether the bats are currently present or not). This protection comes from the Wildlife & Countryside Act 1981 (updated by the Countryside Rights of Way Act 2000) and the Habitats Regulations 1994. Under this legislation it is an offence to intentionally or recklessly kill, injure, capture or disturb bats or to damage, destroy or obstruct access to any place used by bats for shelter or protection.

Under the Habitats Regulations, where bats may be affected by development proposals, a licence is required from Natural England. Natural England's published guidelines on the licence procedure indicate that if, on the basis of survey information and specialist knowledge of the species concerned, the proposed activity is reasonably likely to result in an offence then a licence is required. If, on the other hand the proposed activity is reasonably unlikely to result in an offence, then a licence is not required.

If bats or bat field signs are identified during works, stop all works and contact Whitcher Wildlife Ltd directly on 01226 753271 or at info@whitcher-wildlife.co.uk