

Bat Building Assessment & Bat Activity Surveys

Barn at
Water Slack Farm
Cawthorne, Barnsley

Report Reference: BG133

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1 Summary

This report has been prepared to inform a planning application relating to the conversion of a barn into a living accommodation at Water Slack Farm, Cawthorne, Barnsley.

Barnsley Metropolitan Borough Council has requested clarification of the potential of the barn to support roosting bats. Site surveys were undertaken to provide a clearer picture of the suitability of the barn for supporting roosting bats and also include reference to mitigation and enhancement where appropriate.

As per the Bat Conservation Trust's 'Good Practice Survey Guidelines' (Rev 2012) two evening surveys and one dawn survey was carried out.

The results revealed that common pipistrelle (*Pipistrellus pipistrellus*) were feeding in the area but none were detected going in to or leaving the barn. No further surveys or mitigation is required in relation to bats and this application.

Water Slack Farm is located west of Cawthorne Village. Open countryside consisting of grassland fields used for grazing cattle and large areas covered in woodland exists around the farm. The whole area is highly suitable habitat for foraging bats. Opportunities should therefore be explored to incorporate enhancement schemes for roosting bats within the new development. Ecological enhancement schemes would require consultation between the architect for the development and an ecological consultant.

2 Introduction

2.1 Background

Brindle & Green was commissioned by Nuttall Yarwood and Partners to carry out bat surveys on the 'Barn' at Water Slack Farm, Cawthorne in Barnsley.

Three individual site visit surveys were carried out during May 2013.

The purpose of these surveys was to clarify with some certainty whether the barn was or has been used by roosting bats.

2.2 Scope of this report

This report is based on methodologies set out by the Bat Conservation Trust within their 'Bat Surveys - Good Practise Survey Guidelines' (Rev 2012).

2.3 Surveyor/s

The survey was carried out by Christopher Needham BSc (Hons.) MSc. MIEEM.

Natural England bat licence number 20123298.

2.4 Regulation & Policy

All bats in the United Kingdom are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, & c.) Regulations 1994. It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat. Please refer to the original Acts for precise wording. It is stressed that bat roosts are protected against damage, destruction or obstruction, irrespective of whether or not bats are present at the time, and that current guidance issued by Natural England state that once bats have occupied a roost, it is, under normal circumstances, protected indefinitely.

3 Site Location

Figure 1

An OS map of the area. The site is marked by a black arrow.

The site at Water Slack Farm is located near to the west of Cawthorne Village at Grid ref. SE 26973 06280

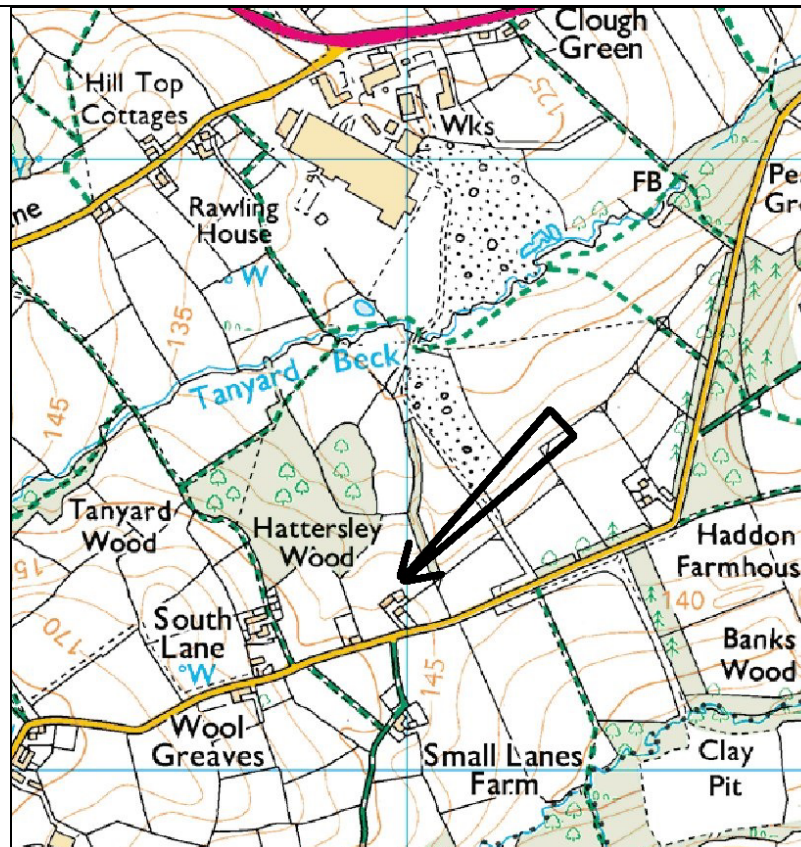


Figure 2

An aerial photograph of the site highlighting the barn location in yellow.



4 Methodology

The barn was subjected to a bat building assessment and three bat activity surveys in accordance with the Bat Conservation Trust's 'Good Practice Survey Guidelines' (Rev 2012).

During the survey the whole perimeter and interior of the barn was examined for bats and signs of bats and also for features that bats could use such as crevices leading to suitable enclosed spaces. Dusk and dawn surveys were undertaken using bat detectors to determine if bats were using any part of the buildings and if present what flight paths and feeding areas were used.

Equipment taken to the site consisted of:

- Ladders
- CB2 Clubman million candle power lamp
- Head lamps (not used)
- Compass
- Canon A710 camera
- GPS eTrex
- Tally counter (not used)
- Opticron Verano BGA 8X32 close focus binoculars
- Endoscope, Ridgid SeeSnake Micro CA-100
- Batbox Duet detector
- EM3 Bat Detector

5 Survey Site

5.1 General Description of the Survey Site

Water Slack Farm is located west of Cawrthorne Village. Open countryside consisting of grassland fields used for grazing cattle and large areas covered in woodland exists around the farm. The whole area is highly suitable habitat for foraging bats.

The barn is a detached very old looking building to the rear of the farm house. The building is a two storey high barn approximately 23.5m long x 7.5m wide. Although two small rooms do exist to the side of the barn the overall space within the barn is open from floor to roof.

There has been only a small amount of mortar used within the construction of the walls. Small stones have been used in the construction of the walls and these are mostly held together by dry stone wall building methods. This enables crevices and holes to exist around each of the small stones within the walls of the building, which makes the building look seemingly highly suitable for roosting bats. Evidently to prevent wind blowing straight through into the interior of the barn the inner walls have been rendered.

The roof is made from some very large stone tiles. These are supported by impressive looking wooden beams. Sections of the roof have collapsed allowing wind and rain to enter the building. Large tarpaulin sheets have been suspended from the roof to protect items within the barn from rainwater. Sections of the roof look unstable. Two large barn doors exist at the front and rear of the barn.

Currently the barn is used as a storage area for household goods.

5.2 Photographs with Annotations

Water Slack Farm,
Cawthorne, Barnsley.



The barn (surveyed building)
at Water Slack Farm.



Large stone roof tiles with
numerous gaps.



Substantial thickness of walls
c45cm wide.



Rear of the barn showing that
large portion of the building
have been constructed by dry
stone walling methods.



Small stones have been used
in the construction of the
building. This allows holes
and crevices to exist around
most of the individual stones
within the walls.



One of the gable ends.



The building frame is constructed by impressive looking large wooden beams.



Interior of the barn.
Large gaps exist in sections of the roof. Ivy in one half of the barn has grown into the building.



Interior of the barn.
Large rafters within the roof.



Interior of the barn.
Mortise and tenon joints used
in the construction of the roof
rafters. Gaps between these
types of joints are sometimes
used by roosting bats.



Interior of the barn.
The floor of the barn is
covered in household and
garden debris making it
difficult to find bat droppings if
they were present.



This smaller building is attached to the main barn.



A roof space exists within this smaller barn.



Open countryside surrounds Water Slack Farm. Areas such as this field and woodland edge at the rear of the barn provide ideal foraging areas for bats.



6 Results of the Survey

Bats or signs of occupation by bats were not found in the barn during the survey.

Bats or signs of occupation by bats were not found on the exterior of the barn during the survey.

Bats were not seen or detected to leave or enter the barn during the survey.

2nd May 2013

Evening Survey. Sunset 20:38

Weather: 12°C. Dry. Still. 2/8 cloud cover

At 21:24: a common pipistrelle passed between the house and the barn.

7th May 2013

Evening survey. Sunset 20:46

Weather: 16°C. Dry. Light south westerly. 0/8 cloud cover.

At 21:25: 1 common pipistrelle over small stone shed heading north.

At 21:46: 1 common pipistrelle detected briefly feeding along the hedgerows at the side of the path leading from the house down towards the tennis court.

11th May 2013

Dawn Survey. Sunrise 05:12

Weather: 7°C. Dry. Light westerly wind feeling cool. 0/8 cloud cover.

No records.

7 Conclusions & Recommendations

From spring through to autumn when bats are active the location of a roost site can switch from one site to another for no apparent reason. Bat roost sites are warm and sheltered at this time of year away from the wind and rain. The roost site is usually high up in a space of a building that is free from such influences of the weather and also free from disturbances and predators.

The results of the survey shows no evidence that bats were using the barn and only a few foraging bats were recorded in the surrounding area during the surveys. This is surprising because the barn is covered in holes and crevices that on first impression look suitable for bats. Walls as wide as this usually allow bats to get within the wall in crevices that are free from the influences of the weather.

It can only be assumed that the dry stone wall construction is allowing wind to move through the walls and thus deterring bats from using the barn.

Single bats are capable of entering buildings through holes a couple of centimetres wide. It is always stressed that in the unlikely event that bats are found within the structure of the building while work is in progress, work should stop immediately in that area and advice sought from an ecological consultant or Natural England.

8 Biodiversity Enhancement

In March 2012 the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - *opportunities to incorporate biodiversity in and around developments should be encouraged.*

There are a variety of habitats adjacent to this property that will provide bats with feeding areas. Bats were recorded in the area during the surveys. Opportunities should be explored to incorporate enhancement schemes for roosting bats within the new development. Ecological enhancement schemes would require consultation between the architect for the development and an ecological consultant.

Note

Breeding birds were evident in the area. The whole area looks suitable for a variety of bird species. There was no evidence that barn owls (*Tyto alba*) were using the barn but efforts should be made to encourage this and other bird species to use and maybe breed in the area of the proposed development.

9 References

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