

# Netherwood Farm, Marsden

## Bat Survey Report

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## 1. Summary

- 1.1.1 The bat survey was commissioned by architect Mr Alan Davies on behalf of the client Mr Lee Roberts on 26th July 2017.
- 1.1.2 The preliminary roost assessment survey was conducted on the 7<sup>th</sup> August 2017 followed by a nocturnal dusk survey on the same day. A subsequent nocturnal survey was undertaken on the 22<sup>nd</sup> August 2017.
- 1.1.3 One common pipistrelle bat roost location was confirmed during the nocturnal surveys, used by a maximum confirmed count of two bats. The roost comprises a day roost which is considered to be of low conservation interest and of no more than local importance to resident bat populations.
- 1.1.4 The identified roost will not be impacted by the proposed works and therefore it is not considered necessary to either register the site on the Bat Low Impact Class Licence (BLICL), or to obtain a European Protected Species (EPS) mitigation licence for the development. It is however recommended that a tool box talk be given to contractors at the onset of works to avoid any impacts on roosting bats.
- 1.1.5 It is considered that sufficient understanding of bat roost usage has been obtained through the two bat surveys undertaken to date to inform a planning application.
- 1.1.6 Measures to safeguard roosting bats, both during and following the barns' redevelopment have been detailed. It is strongly advised these measures include the use of traditional bituminous Type F1 underfelt during re-roofing works on all of the buildings.

## 2. Introduction

- 2.1.1 A two storey stone built farm house and barns is subject to a planning application for renovation and re-development. Consequently Middleton Ecological Consultancy were contracted to undertake a bat survey of the buildings by architect Mr Alan Davies on behalf of the client Mr Lee Roberts on 27<sup>th</sup> July 2017.
- 2.1.2 Netherwood Farm, Netherwood Lane is situated in a rural location at an altitude of 291m adjacent to woodlands and pasture. Despite its relatively high altitude, the site provides good foraging habitat for a range of bat species.
- 2.1.3 The bat survey commissioned comprised a preliminary roost assessment followed by two nocturnal surveys. The surveys aimed to determine the likely presence or absence of roosting bats and to identify roost locations, access points, species present, level of use and the importance of nearby landscape features.

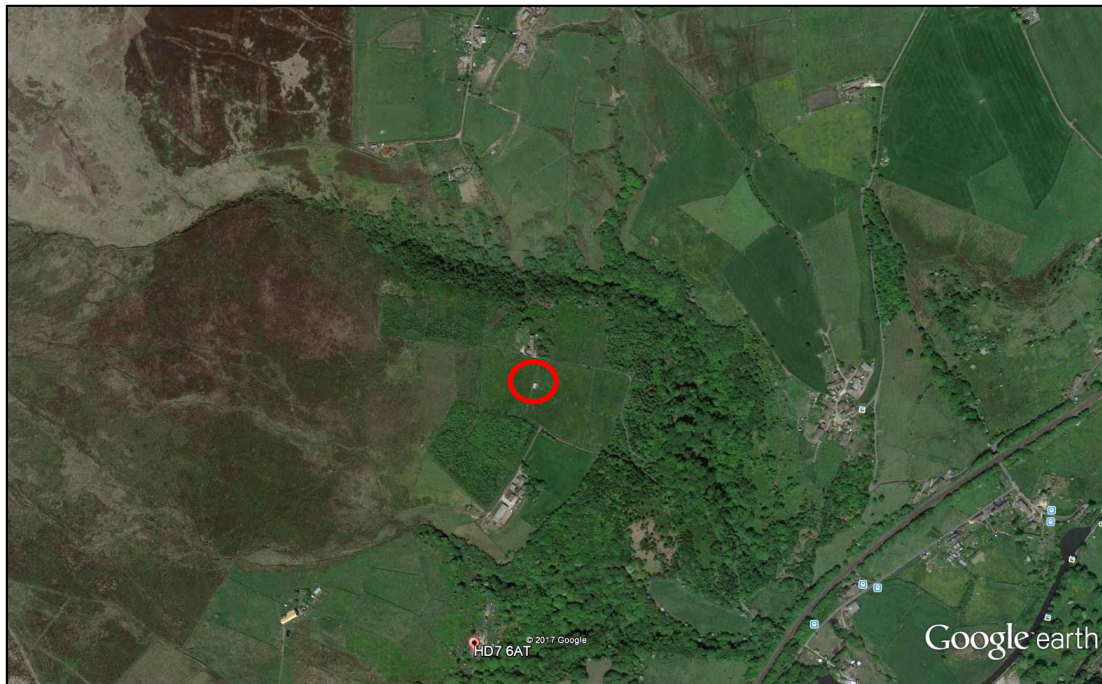
## 3. Habitat Assessment

- 3.1.1 The site is located in a rural location 165m from the South Pennines/Dark Peak Special Protection Area (SPA), Species Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) which is within the Natural Character Area 36, South Pennines. The surrounding area consists of grassland (pasture) and a wooded clough. Consequently, all or many of the locally occurring bat species are likely to be in the area.
- 3.1.2 Table 1 summarises the habitats present, adjacent to and further afield of the surveyed building.

**Table 1. Location and habitat table**

Name and address: Netherwood Farm, Netherwood Lane, Marsden HD7 6AT			
OS Grid Ref. SE 0512 1308		Altitude. 291m	
Local Planning Authority: Kirklees Council			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings	✓		Nearest dwelling is 190m south
River bordered by trees			River Colne 970m southeast
Standing water			Sparth Reservoir 680m southeast
Bridges tunnels and culverts			Railway bridge 580m southeast
Trees	✓	✓	In garden of property
Woodland		✓	Wooded clough 50m north
Grassland	✓	✓	An abundance of grassland both improved and rough grazing

**Figure 1. Site location, as indicated by red circle**



### **3.2 Aims**

3.2.1 The survey was conducted to help determine the following:

- The presence/absence of roosting bats.
- Potential roosting areas and access/egress points into structure.
- Determine the level of bat roost potential associated with the structure.
- The number and species of bat roosting within the structure.
- Identify further survey work or mitigation requirements.

## **4. Methodology**

### **4.1 Data Consultation**

4.1.1 Data requested from West Yorkshire Bat Group for locations within a 2km radius of the site. A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was undertaken to identify historic European Protected Species (EPS) licences obtained for locations within 2km of the site.

### **4.2 Field Survey**

#### Preliminary roost assessment

4.2.1 The following personnel conducted the surveys:

- Peter Middleton (Class license WML-A34-Level 4, 2016-25236-CLS-CLS)

4.2.2 The following activities were carried out during the survey on 7<sup>th</sup> August 2017 in compliance with relevant Bat Survey Guidelines (Collins 2016):



- A brief inspection and assessment of the site and habitats present to within 300m.
- An extensive examination of all parts of the building both inside and out to record structural features and condition and to record features that may be suitable for roosting bats. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to walls, floors or other surfaces, or insect remains below beams, among a number of other factors. All signs indicative of a bat roost presence including live or dead bats, droppings, feeding remains, scratch marks and staining were recorded.
- An assessment of the structures' bat roost potential (negligible, low, moderate, high or confirmed roost).

4.2.3 The following equipment was used or at hand during the survey:

- Clulight
- Binoculars
- Endoscope
- Ladders
- Camera

#### Nocturnal survey

4.2.4 In accordance with the best practice guidance recommendations (Collins, 2016); two nocturnal surveys were undertaken by Peter Middleton (PM) and Carl Dixon on 7<sup>th</sup> and 22<sup>nd</sup> August 2017. Surveyors were positioned to cover all elevations of the surveyed building and were equipped with Wildlife Acoustic EM Touch full spectrum bat detectors.

### **4.3 Survey Limitations**

4.3.1 No limitations were identified.

## **5. Results**

### **5.1 Data Consultation**

5.1.1 West Yorkshire Bat Group supplied six bat roost records for locations within 2km of the site. All roosts comprised low numbers of common pipistrelle *Pipistellus pipistrellus* or *Pipistrellus* spp. and all are in excess of 1.6km from the application site.

5.1.2 Two EPS mitigation licences have been issued for locations within 2km of the site. The nearest is 1.6km southwest of the site and was issued in 2015 to allow the destruction of a common pipistrelle resting place.

### **5.2 Field Survey**

#### Preliminary roost assessment

5.2.1 No evidence of roosting bats were found during the preliminary roost assessment on the 7<sup>th</sup> August. A high number and diversity of potential bat roost features were recorded within the surveyed building and these are described in detail below.

*External inspection*

- 5.2.2 The site consists of an old two storey stone built farm house and adjoining barns situated on a north-south orientation. The farm house is 'L' shaped with a west extending wing (extension) with a York stone pitched roof with ridges, valleys and gables whilst the barns on the north end of the complex have single ridges and gables (see Plates 1, 2 & 3).

**Plate 1. South facing gable and east elevation**



**Plate 2. West elevation (north end)**



- 5.2.3 The south gable of the farm house is cement rendered (see Plate 1) and the remaining masonry on the east and west elevations has been well maintained. Therefore only the masonry of the adjoining barns have holes in mortar joints (see Plate 3). Along both the east and west elevations is a wood fascia with a gap behind in several places. Additionally, like all roofs of this type, there is an abundance of access opportunities for bats under slates and at the roof verges above gables.

**Plate 3. Small barn at north end of complex**



*Internal inspection*

- 5.2.4 The roof void of the farm house has king-post roof timbers with a height of 1.9m to the ridge whilst the extension (west wing) has a height to the ridge of 2.4m. There is 200mm of glass fibre insulation at ceiling height and bitumen hessian 1F felt beneath the slates. The ridge area was found to be 'cobweby' and no signs of bats were found. The large (middle) barn is open to the underside of the roof. It has recently been re-roofed and there is 1F felt beneath the tiles and a plastic membrane at the eaves and ridge. No signs of bats were found. The upper floor of the smaller end barn was not inspected for reasons of health and safety as the stairs were found to be unsafe. This barn has recently been re-roofed and there is a breathable roofing membrane beneath the slates.

Nocturnal survey

- 5.2.5 **Dusk survey, 7<sup>th</sup> August 2017 – (Sunset 20:53).** The temperature at the beginning of monitoring was 13°C with a Beaufort Scale (BS) Force 1/2 westerly wind and 30% cloud. The temperature dropped to 11°C by the end of monitoring and the other conditions remained the same.
- 5.2.6 A common pipistrelle possibly emerged from the roof of the porch on the south elevation of the farm house at 21:14. An individual of the same species foraged continuously between the east elevation and adjacent scrub from 21:30 to 21:46 with a single pass at 22:02.
- 5.2.7 **Dusk survey, 22<sup>nd</sup> August 2017 – (Sunset 20:21).** The temperature at the beginning of monitoring was 19°C with a BS Force 1 south easterly wind and 100% cloud. The temperature dropped to 18°C by the end of the survey and the other conditions remained the same.
- 5.2.8 A noctule *Nyctalus noctula* foraged high above the farm house at 19.42 (39 minutes



before sunset) and did so intermittently throughout the survey. At 20:40 two common pipistrelles emerged from beneath slates at the roof verge of the porch on the south facing gable (see Plate 3). A common pipistrelle foraged intermittently thereafter and a *Myotis* species was recorded at 21:20.

**Plate 3. Place of emergence, as indicated by arrow**



## **6. Assessment**

### **6.1 Summary and Evaluation of Findings**

- 6.1.1 One common pipistrelle bat roost location was confirmed during the two nocturnal surveys, used by a maximum confirmed count of two bats on any one occasion. The roost is considered to comprise a day roost and it is considered that year round roost usage by common pipistrelle is possible. The roost recorded is considered to be of low conservation interest and of no more than local importance to resident bat populations.
- 6.1.2 It is considered that sufficient understanding of bat roost usage has been obtained through surveys undertaken to date to inform a planning application.

### **6.2 Legislation and Policy Guidance**

- 6.2.1 Bats receive protection under the Conservation of Habitats and Species Regulations 2010 (and 2011 Amendment Regulations (as amended)) and the Wildlife and Countryside Act 1981 (as amended).
- 6.2.2 It is an offence to:
- Deliberately capture (or take), injure or kill a bat.
  - Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection, or obstruct access to any such place.
  - Damage or destroy the breeding or resting place (roost) of a bat.
  - Possess a bat (live or dead), or any part of a bat.
  - Intentionally or recklessly obstruct access to a bat roost.
  - Sell (or offer for sale) or exchange bats (dead or alive), or parts of parts.
- 6.2.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992, requires member states to develop national strategies and to undertake a range of actions aimed at maintaining or restoring biodiversity. The UK Biodiversity Strategy



was produced in response to the Convention.

- 6.2.4 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, “to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. It notes that “conserving biodiversity includes restoring or enhancing a population or habitat”. Barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteinii*), brown long-eared, greater horseshoe (*Rhinolophus ferrumequinum*), lesser horseshoe (*Rhinolophus hipposideros*), noctule (*Nyctalus noctula*) and soprano pipistrelle (*Pipistrellus pygmaeus*) bats are included as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. At a more local level there are Local Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.
- 6.2.5 Where it is proposed to carry out works which will have an adverse impact on roosting bats, the site must either be registered on the Bat Low Impact Class Licence (BLICL) or a European Protected Species (EPS) license must first be obtained from Natural England. This requirement applies even if no bats are expected to be present when the work is carried out.
- 6.2.6 The National Planning Policy Framework (2012) states that the planning system should contribute to and enhance the natural and local environment by:
- Protecting and enhancing valued landscapes, geological conservation interests and soils.
  - Recognising the wider benefits of ecosystem services.
  - Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government’s commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

### 6.3 Mitigation/recommendations

- 6.3.1 In order to provide continued bat roosting opportunities within the re-developed building, traditional Type F1 bituminous roofing membrane must be used during re-roofing of both barns. Bats are known to become entangled and die in modern filamentous Breathable Roofing Membrane resulting in the membrane becoming damaged. Given the stone tiles on the barn roofs and their location, it will not be possible to prevent bats entering the crevice between the roof tiles and underfelt in the future, were this desired.
- 6.3.2 It is recommended that a tool box talk be given to contractors at the onset of works to avoid any impacts on roosting bats during the construction phase of the development.
- 6.3.3 It is advised that new lighting on the re-developed buildings is minimised and lighting of the east elevation should be achieved by the use of down lighting or hoods, if strictly necessary.
- 6.3.4 Considering that the York stone tile roofs of the house and barns provide ample roosting opportunities for crevice dwelling bats, a bat enhancement feature integral to the fabric of the building is not considered necessary. For further information on appropriate bat roost features contact Middleton Ecological Consultancy.

## **6.4 Conclusion**

- 6.4.1 The building supports one common pipistrelle day roost, supporting a maximum count of two bats during a single survey visit. The roost is situated under slates on the roof of the single storey porch on the south facing gable. The roof of the house and porch will not be affected by the plans for the proposed development of the site and therefore it is not considered necessary to either register the site on the Bat Low Impact Class Licence (BLICL), or to obtain a European Protected Species (EPS) mitigation licence. It is however recommended that a tool box talk be given to contractors at the onset of works to avoid any impacts on roosting bats during the construction phase of the development.
- 6.4.2 No further survey effort is necessary for the building providing the recommendations provided in this report are enacted and works commence within 24 months of the survey date. If works are to commence after this date then Middleton Ecological Consultancy should be contacted to determine the requirement for update survey.
- 6.4.3 Works should proceed with caution and vigilance for unexpected bat presence, as single bats can roost almost anywhere. If bats are subsequently discovered, work should be stopped and further advice sought without delay.

## **7. References**

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

Gunnell K, et al 2013, Designing for Biodiversity: A technical guide for new and existing buildings, RIBA Publishing.

Mitchell-Jones AJ, 2004, Bat Mitigation Guidelines, English Nature.