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## **Bat Roost Assessment Report Wardsley Farmhouse**

### **Background Information**

Bowland Ecology Ltd was commissioned by Savills to undertake a building assessment for bats of a site, Wardsley Farmhouse at Leagram near Chipping (NGR: SD 64561 43881).

The site currently comprises a farmhouse with associated barns. Surrounding habitats include hardstanding, gardens, scattered farms and farm buildings, fields and associated boundaries (predominantly hedgerows) and pockets of trees and scrub. Greystoney brook flows to the south on the opposite site of the adjacent road and eventually meets the River Hodder which is located approximately 160 m to the south.

The purpose of the survey and this report is to make an assessment of the value of the site for bats, and to identify any constraints and requirements in relation to the proposed re-roofing works. The locations of affected buildings are shown on the Bat Survey Plan (Appendix A).

### **Method**

A daytime internal and external inspection of the buildings (shown in Appendix A) was undertaken on the 28<sup>th</sup> October 2016 by Laura Bennett MSc, MA (Hons), ACIEEM (Natural England Bat Licence Number: 2016-19878-CLS-CLS) and Mark Breaks BSc (Hons). The survey followed the Bat Conservation Trust 'Good Practice Guidelines' (Collins, 2016). The weather during the inspection was overcast and cool with a light breeze. The temperature was approximately 12°C.

The internal inspection involved a search of the building for field signs, particularly within accessible roof spaces, such as; bats, bat droppings, urine stains, bat feeding remains (moth wings, insect cases), bat staining, a distinctive smell of bats, scratch marks and smoothing of surfaces, which would indicate a roosting site.

The external inspection involved checking for field signs of bats on external features of the buildings with particular attention being paid to windowsills, windowpanes and ledges, walls, doors and the ground around the buildings. An assessment of the potential of the building to support bats was also made during the survey i.e. searching for suitable roosting crevices. High power torches (Cluson Clu-lite 500,000 candlepower), and close focus binoculars were used to aid the survey.

Natural England's Bat Mitigation Guidelines (A.J. Mitchell-Jones 2004) states that a significant bat roost can normally be determined on a single visit at any time of the year, provided that the entire structure is accessible and that signs of bats have not been removed by others.

Using the information collected during the internal and external assessment, a 'roost potential' score was given to the building according to the criteria shown in Appendix B. An assessment of the suitability of the site for bats was undertaken, including the identification of potential foraging and roosting areas, potential flight lines and important commuting corridors.

## Survey Results

Based on a review of aerial photographs and OS maps there is suitable habitat for bats within the surrounding landscape in the form of hedgerows, small pockets of woodland, watercourses, trees and scrub and scattered farm buildings. There is an extensive area of woodland along the River Hodder corridor to the south of the site.

One building was inspected during the survey (B1). The building is to be subject to re-roofing.



Photo 1: The building B1

**External** – The stonework of the building is in good condition and well-sealed. The roof is pitched and tiled and in fair condition. However there are a number of lifted tiles and gaps under ridge tiles. There are gaps between the top of the walls and the tiles at both of the gable ends. The building has two chimneys with lifted lead flashing around the bases. These features are potentially suitable for use by crevice dwelling bats.

The northern elevation has timber framed windows, plastic guttering and a wooden barge board with a small gap behind it. There may be an access route for bats into the building behind the barge board. There were some cobwebs but not an extensive amount. Bird droppings were recorded at two locations beneath the barge board, indicating that the space there is big enough for birds to roost/nest.

The southern elevation also has timber framed windows and plastic guttering but the barge board is missing. Roof felt can be seen hanging down over the top of the wall. This would indicate that access for bats into the building along this elevation is possible.

No signs of bats (droppings/feeding remains etc.) were recorded around the outside of the building.

**Internal** – The derelict farmhouse has a large internal loft space present above the four bedrooms and bathroom of the farmhouse. A vacant barn room, located in the western third of the building, is open from the first floor up to the ceiling. The ceiling throughout the loft and vacant barn is lined with black felt on timber beams with some narrow gaps present through to ridge tiles. Crevices are present within the brickwork mortar on the external walls within the loft space and vacant barn. Some of the structural timber beams have large cracks

present which provide potentially suitable crevices for roosting bats. The loft has insulation present with no visible light intrusion. The loft is relatively warm and no draughts.

Bat droppings were recorded throughout the building with small quantities in the stairway window on the eastern elevation (D1), under the open loft hatch (D2) on the landing between Bedroom 3 and 4, in the vacant barn on the windowsill (D3), floor below timber beam (D4) and along the southern elevation (D5).

Large quantities of bat dropping were recorded throughout the entire loft space with dropping on apex and internal stone wall, piled up on timber cross beams and covering the floor insulation cover.

Several butterfly pupa located within the loft whilst spider cobwebs were present in the loft and vacant barn.



*Photo 2: Accumulation of bat droppings in the building loft*

## **TO BE ISSUED TO ALL CONTRACTORS WORKING AT THE SITE**

### **Reasonable Avoidance Measures (RAMs)**

The proposal involves re-roofing the building. This activity has the potential to lead to killing and injury of bats, if present during the works; and to the permanent loss of roosting habitat. Legal information relating to bats is included as Appendix C. Awareness information relating to bats is presented in Appendix D.

In order to reduce the risk of direct impacts to bats and to ensure continuity of roosting habitat, Reasonable Avoidance Measures (RAMs) are recommended. Reasonable Avoidance Measures are necessary to mitigate the risk of killing and injuring bats if present during the works and to ensure that appropriate mitigation is provided such that bats will continue to utilise the roost following completion of the works.

These measures **MUST** be adhered to throughout the duration of the works. If the scope of the works deviates from the information provided, the project ecologist should be contacted for further advice. If any changes occur to the working method and timing, these RAMs must be revised to accommodate any changes as appropriate.

Responsible party indicated at end of each item: **CC** – Contractor, **SQE** – Suitably Qualified Ecologist

- Toolbox talk and bat awareness information (Appendix D) to be provided to all staff and contractors working on site prior to the recommencement of any works to ensure that all contractors are made aware of the presence of bats and the signs to look for – **SQE**
- All works are to have an ecological watching brief, supervised by a licenced ecologist – **SQE**
- Prior to the works recommencing, 2 temporary bat boxes (e.g. [2F Schwegler Bat Box \(General Purpose\)](#)) and one temporary bat hibernation box (e.g. 1FW bat hibernation box ([www.nhbs.com](http://www.nhbs.com); other suppliers are available)) will be installed upon suitable trees close to the Site by or under the supervision of the **SQE**. These boxes will be used to receive bats if any are encountered during the works and to provide temporary roosting opportunities until the works have been completed – **CC**
- The roof membrane must be replaced with a **traditional roofing felt**, as it is known that bats become entangled in breathable roof membranes, resulting in the death and injury of bats – **CC**
- Barge boards through which bats access the roost must remain in place, with the hole unobstructed. – **CC**
- The tile above the roost entrance must be slightly raised to allow access by bats into the roost space - **CC**
- Four [Bat Access Tile Set](#) (figure 1; [www.nhbs.com](http://www.nhbs.com)) or Morris Bat Slates are to be fitted (two on each elevation; north and south) to the roof, to allow bats access between the roof tiles and felt liner – the locations to be agreed with the supervising ecologist – **CC**.



Bat access tile set.

- Careful timing of works - works to be undertaken during the hibernation period (November to February inclusive) and after that to be completed as soon as possible before the end of March and prior to the bats returning to the maternity roost in April – **CC**
- If bats are encountered within the working area, all works must cease immediately – **CC** and the **SQE** must be contacted for further advice – **CC**
- If bats are in imminent danger, carefully move the bat(s) wearing gloves, and place within a suitable container (a covered box such as a shoe box) with air holes and place in a safe, dark and quiet location and contact project ecologist for further instruction – **CC**
- All works to the buildings is to be undertaken by hand or using hand held machinery, that produces as low levels of vibration as practicable - **CC**
- All works are to be undertaken during daylight hours. No artificial lighting is to be left on overnight – **CC**
- If changes to the proposed works and/or proposed work schedule occur, the **SQE** must be contacted immediately – **CC/SQE**
- Post works monitoring to be undertaken during the peak maternity period (June / July) to confirm that bats have returned to the roost – **SQE**
- If bats fail to return to the roost, the **SQE** must be consulted and remedial action will be taken to ensure bats are able to utilise the roost – **CC**

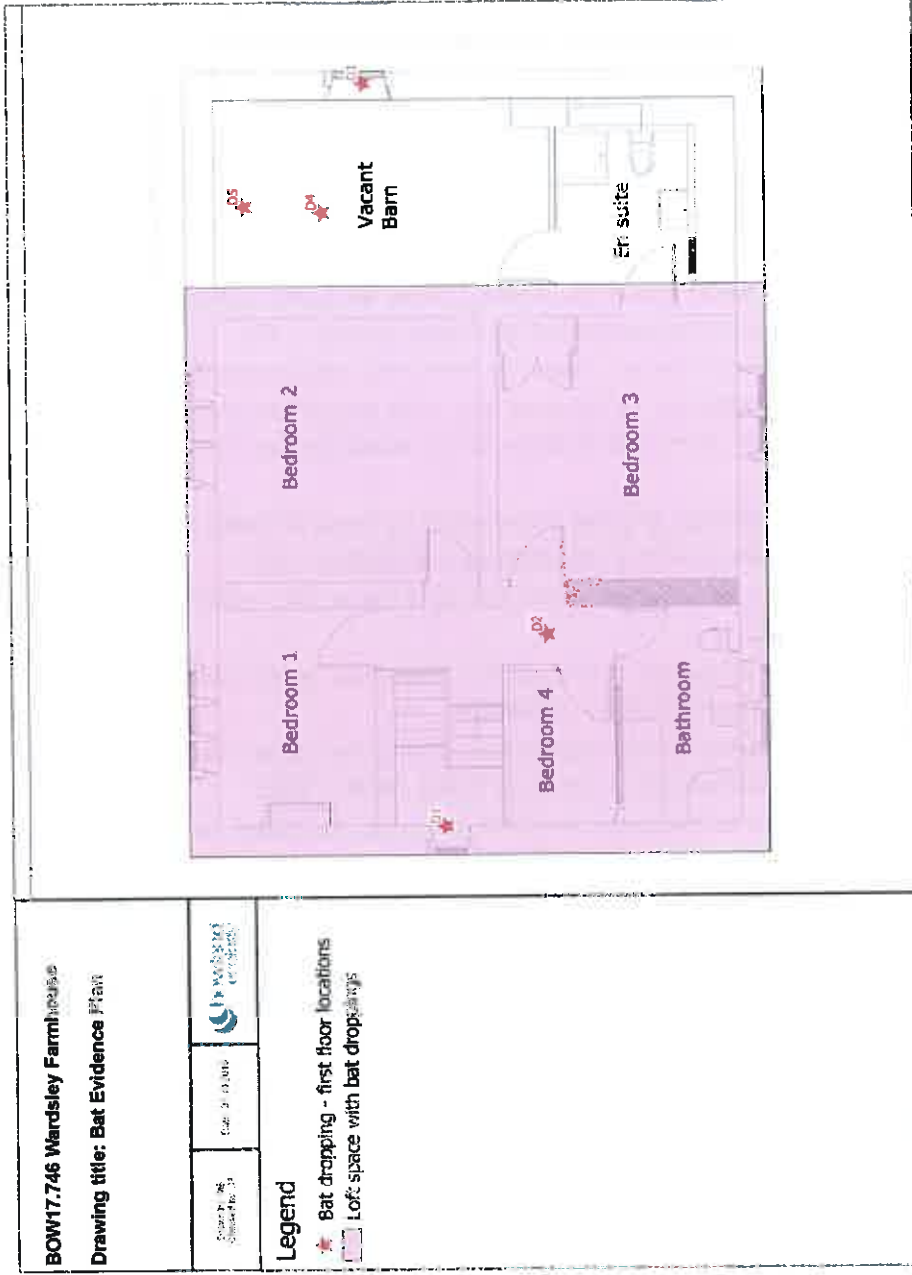
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**Date of issue:** 1/11/16

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### Appendix A – Building Plan and Bat Roost Locations



## Appendix B – Bat Roost Assessment Criteria

Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape (Collins, 2016).

Suitability	Description of Roosting Habitat	Commuting & Foraging Habitats
<b>Negligible</b>	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features on site likely to be used by commuting or foraging bats.
<b>Low</b>	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitats to be used on a regular basis or by a larger number of bats (i.e. unlikely to be suitable maternity or hibernation).</p> <p>A tree of sufficient size and age to contain potential roosting features but with none seen from the ground, or feature seen with only very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
<b>Moderate</b>	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status.	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging, such as trees, scrub, grassland or water.</p>
<b>High</b>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis, and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	<p>Continuous high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close and connected to know roosts.</p>

## Appendix C – Legal Information

<b>Bats</b> <i>European protected species</i>	Conservation of Habitats and Species Regulations 2010 Reg 41	Deliberately <sup>1</sup> capture, injure or kill a bat; Deliberate disturbance <sup>2</sup> of bats; Damage or destroy a breeding site or resting place used by a bat The protection of bat roosts is considered to apply regardless of whether bats are present.	An NE licence in respect of development is required in England. <a href="https://www.gov.uk/bats-protection-surveys-and-licences">https://www.gov.uk/bats-protection-surveys-and-licences</a> <i>European Protected Species: Mitigation Licensing- How to get a licence</i> (NE 2010) <i>Bat Mitigation Guidelines</i> (English Nature 2004) <i>Bat Workers Manual</i> (JNCC 2004) <i>BS8596:2015 Surveying for bats in trees and woodland</i> (BSI, 2015)
	Wildlife and Countryside Act 1981 (as amended) <sup>4</sup> S.9	Intentionally or recklessly <sup>3</sup> obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.

<sup>1</sup>Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing

<sup>2</sup>Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2010 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided. Thus deliberate disturbance that does not result in either (a) or (b) above would be classed as a lower level of disturbance.

<sup>3</sup>The term 'reckless' is defined by the case of Regina versus Caldwell 1982. The prosecution has to show that a person deliberately took an unacceptable risk, or failed to notice or consider an obvious risk.



## Appendix D – Information Sheet for Contractors on Bats

**Legislation Covering UK Bat Species**

All UK Bat species are protected by European and UK law, in practical terms this means it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

**Penalties on conviction: the maximum fine is £5,000 per incident or per bat (some roosts contain several hundred bats), up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.**

**Defenses include:**



**Where bats can be found:**

- Free hanging from ceilings/pipes
- Under barge boards
- In cavity walls
- Under roof coverings
- Between beams
- In cracks in stone or concrete
- Behind peeling paint/wall coverings
- In holes in walls or pipes
- Gaps behind window frames, door frames, lintels
- Behind ivy-cladding
- In trees (cracks, holes, ivy cladding)



**Signs to Look for:**

**Live or Dead Bats** – these can be found in various places in buildings or within trees.

**Bat Droppings** – the presence of droppings indicate a bat roost and can be found in all the places mentioned above and on the ground beneath these features. Bat droppings look like mouse droppings but will crumble between your fingers (they are dry and made entirely of insects).

**Procedure if bats are found:**

If you find a bat or suspect bats to be present you must **stop works immediately** and contact the **project manager**. Contractors should avoid handling bats as a very small number of bats in the UK have been identified as carrying a rabies virus called European Bat Lyssavirus (EBLV). If handling is absolutely essential to move bats away from harm, gloves must be worn.

**If bat is in imminent danger**

Stop works ----- > Gloves on ----- > place bat in a box/safe place ----- > Call Bowland Ecology (Tel. 01200 446777)