

## ***Bat Advice Note: New Laund Farm, Whitewell***

### **Introduction**

Bowland Ecology Ltd was commissioned by Savills to undertake an internal and external building inspection survey at New Laund Farm Whitewell, Clitheroe, Lancashire (NGR: SD 65509 47050), to assess the potential of the building to support roosting bats. The farmhouse is subject to maintenance works, to repair a bulging external wall on the buildings southern elevation. Works comprise the removal of the outer skin of stonework, a new footing will then be excavated on which the blockwork will be re-built. The re-built wall will also contain a cavity, partly filled with insulation. This advice note presents the survey results and makes an assessment of potential impacts to bats, with particular reference to legal requirements (Appendix A) and constraints to the proposed works. A plan showing the location of potential bat roosting features is shown in Appendix B.

### **Methodology**

#### *External and Internal Building Inspection*

The inspection survey was undertaken by Claire Wilson MSc, BSc (Hons), MCIEEM (Natural England Licence No: 2015-16761-CLS-CLS) and Jack Taylor on the 13<sup>th</sup> March 2018. The weather during the inspection was dry, with scattered clouds, no breeze (Beaufort Scale 0) and an approximate temperature of 5°C. The survey followed the Bat Conservation Trust's 'Good Practice Guidelines' (Collins, 2016). The external inspection involved checking for field signs of bats on external features of the building with particular attention being paid to ledges, walls, doors and the surrounding ground. The internal search involved an inspection of the loft area, checking for bats and the field signs of bats such as 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 survey was aided with high powered torches and close focusing binoculars. An assessment of the potential of the building to support roosting bats was made during the survey i.e. searching for suitable roosting crevices.

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. A thorough search of the loft space was possible and there were no limitations to the survey. Using the information collected during the internal assessment, a 'roost potential' score was given to the building according to the criteria shown in Appendix C (Collins, 2016). An assessment of the suitability of the site for bats was also undertaken, including the identification of potential foraging and roosting areas, potential flight lines and important commuting corridors.

### **Results**

#### *Surrounding Habitats*

New Laund Farm is situated in the small hamlet of Whitewell, within the Forest of Bowland. The surrounding landscape is dominated by semi-improved grazed pasture and scattered blocks of woodland, with open moorland in the distance. Based on a review of aerial photographs and Ordnance Survey maps, bat foraging habitat in the surrounding area

includes frequent blocks of woodland and the tree lined River Hodder. The woodlands offer favourable foraging habitat for species which prefer 'closed' habitats, including brown long-eared (*Plecotus auritus*) and Natterer's bats (*Myotis nattererii*). Open areas of grazed pasture provide suitable habitat for foraging noctule bats (*Nyctalus noctula*) who show a preference for 'open' habitats. The edges of the woodland blocks potentially provide suitable foraging and commuting habitat for bat species which show a preference for utilising 'edge' habitats. Such species include common pipistrelle (*Pipistrellus pipistrellus*) and whiskered (*Myotis mystacinus*) bats, which are flexible in their foraging habitat. The River Hodder provides suitable foraging habitat for Daubenton's bats (*Myotis daubentonii*) which show a preference for foraging over water.

Scattered traditional buildings, mature trees, caves and kilns in the surrounding area provide potential roosting sites for a range of bat species.

The Forest of Bowland is considered to be an important area for bats. Surveys undertaken by Bowland Ecology Ltd, in addition to a research project currently being undertaken by Bowland Ecology staff and associates within the Hodder Valley, have found bats to be present within numerous lime kilns and caves close to the Site (within 1 km), which are used annually by hibernating bats. These sites are also known to form important autumn swarming sites for a number of bat species.

Buildings in the area including the Inn at Whitewell (located approximately 0.4 km south east of New Laund Farm), Laundwood Pumping Station, Slaidburn Village Hall and Hodder Treatment Works are all known to house significant bat maternity roosts for a variety of species including common and soprano pipistrelle, myotis bats and brown long-eared bats.

In addition to the maternity, swarming and hibernation roosts in buildings, caves and kilns it is likely that many of the farm buildings in the Forest of Bowland are used by roosting bats during the summer and transitional periods.

#### *External Building Description*

The building is a two storey, stone built, traditional farmhouse with a cross gabled, pitched, slate tiled roof and solid stone walls, offering negligible hibernation potential for bats due to the absence of a cavity. Timber framed windows and doors are present on all building elevations with guttering present along the wall tops. Two chimney stacks, in good condition are also located on the southern elevation of the roof.



*Plates 1 and 2: Southern and eastern elevations of farmhouse.*

The roof has several slate tiles that are raised and slightly dislodged, which may provide habitat for small numbers of crevice dwelling bats (Plate 3). Generally the mortar between stonework is well sealed, however, where timber beams are protruding out of the masonry, directly below the overhanging eaves, on the southern gable end, small gaps are present which may potentially allow internal access into the roof void (Plate 4) and onto the wall tops.



*Plates 3 and 4: Missing & raised roof tiles & gaps in masonry at eaves of building.*

A relatively wide, structural crack is located in the wall at the base of the valley gutter, adjacent to the southern gable. The crack runs from the base of the wall to the top and potentially provides habitat for crevice dwelling bats (Plate 5). Ridge tiles along both pitches are in good condition, the only exception being a gap beneath the ridge tile that is located at the top of the valley gutter (Plate 6).



*Plates 5 and 6: Structural crack and gap beneath ridge tile at top of valley gutter*

A gap of approximately 2 – 3 cm is located on the south western corner of the buildings eastern elevation. The gap is where mortar used to infill a crevice is falling away (Plate 7). The feature provides potential habitat for crevice dwelling bats. The stonework along the main section to be re-built is well sealed (Plate 8).



Plates 7 & 8: Gap in mortar on eastern elevation and southern elevation to be re-built

Internally the roof void was accessed through a loft hatch in a bedroom located adjacent to the bulging wall. The loft space has some insulation on the floor but not covering all areas. Timber beams are also present, these are relatively dusty and heavily cobwebbed in places. Rat droppings are also present on the floor of the void. The roof tiles are unlined, however, parging (mortar between roof tiles) is present between the tiles sealing any gaps. Daylight is visible in three locations at the eaves of the building. The roof space at the time of inspection was found to be relatively warm with no obvious draughts.

The farmhouse is considered to provide **moderate potential** to support roosting bats, in accordance with Collins (2016). However, no bats or their field signs were found during the external and internal inspection of the property.

### Conclusions and Recommendations:

No evidence of roosting bats was observed during the external and internal inspection of the farmhouse. However, a number of bat roosting opportunities were identified, including:

- Raised and missing tiles on the roof;
- Gaps in masonry beneath the eaves of the building on the southern gable end;
- Gap beneath ridge tile at top of valley gutter;
- Structural crack in wall at the base of valley gutter; and
- Gap in masonry on eastern building elevation.

Small gaps and crevices, such as those between slates, under lifted ridge tiles and gaps in stonework, have the potential to be used by crevice dwelling bats such as pipistrelles, (*Pipistrellus pipistrellus*, *P.pygmaeus*, *P.nathusii*), whiskered bats and Brandt's bats (*M.brandtii*). Void dwelling species, such as brown long-eared bats (*Plecotus auritus*), may also utilise the loft void within the farmhouse, however, the presence of heavily cobwebbed beams and rat droppings reduces its suitability for the species, which is supported by the lack of droppings which might otherwise indicate their presence/usage of the space.

Proposed works comprise maintenance works to reinstate the bulging wall on the buildings southern elevation. Works are not anticipated to impact the roof structure or covering, therefore will avoid areas of the building considered most likely to be used by roosting bats. However, gaps in masonry beneath the eaves of the building, on the southern gable end has

the potential to be used by crevice dwelling bats during the active season (April to September inclusive). As such, works to re-build the wall could potentially result in the loss of bat roosting habitat, the killing and injury of bats, and disturbance to roosting bats, which would result in an offence if bats were present at the time of works (see Appendix A). As such, a minimum of one dusk/dawn emergence survey is required to assess the use of the building by bats.

If roosting bats are recorded during the aforementioned survey(s) a European Protected Species mitigation licence issued by Natural England (NE) may be required for the works to proceed lawfully. The type of licence and mitigation required will be dependent upon the findings of the emergence survey(s). If roosting bats are not recorded during, and as bats are a mobile species the following Reasonable Avoidance Measures (RAMs) described below are recommended during the works in order to ensure that potential impacts to bats are reduced to a negligible level:

- Before any works proceed, all contractors should be made aware of the possible presence of bats and the signs to look for (Appendix D).
- Prior to the commencement of works, and when scaffold has been erected, gaps in masonry should be checked using an endoscope by a suitability qualified ecologist, to ensure no bats are present.
- Careful timing of works is recommended. For works to conform with best ecological practice, it is recommended that repair works are scheduled to occur within the period of least impact to bats – (between late October and March). If undertaken in these periods, any roosting bats will be able to relocate to alternative roosts, although individual bats can be found at any time.
- Upon completion of the works gaps around timber beams on the eaves of the building should be created to ensure the continuation of bat roosting habitat.
- Work should cease immediately if any bats are encountered at any stage and only resume once further advice from the project ecologist has been sought. If the bat is in immediate danger it should only be picked up with gloved hands and placed in a secure container with air holes in a dark, quiet place until the licenced ecologist arrives at site.

If no works are undertaken on site within 12 months of this survey or if **any changes to the proposals and/or development timescales are made**, further bat surveys may be necessary due to the potential for colonisation of the site.

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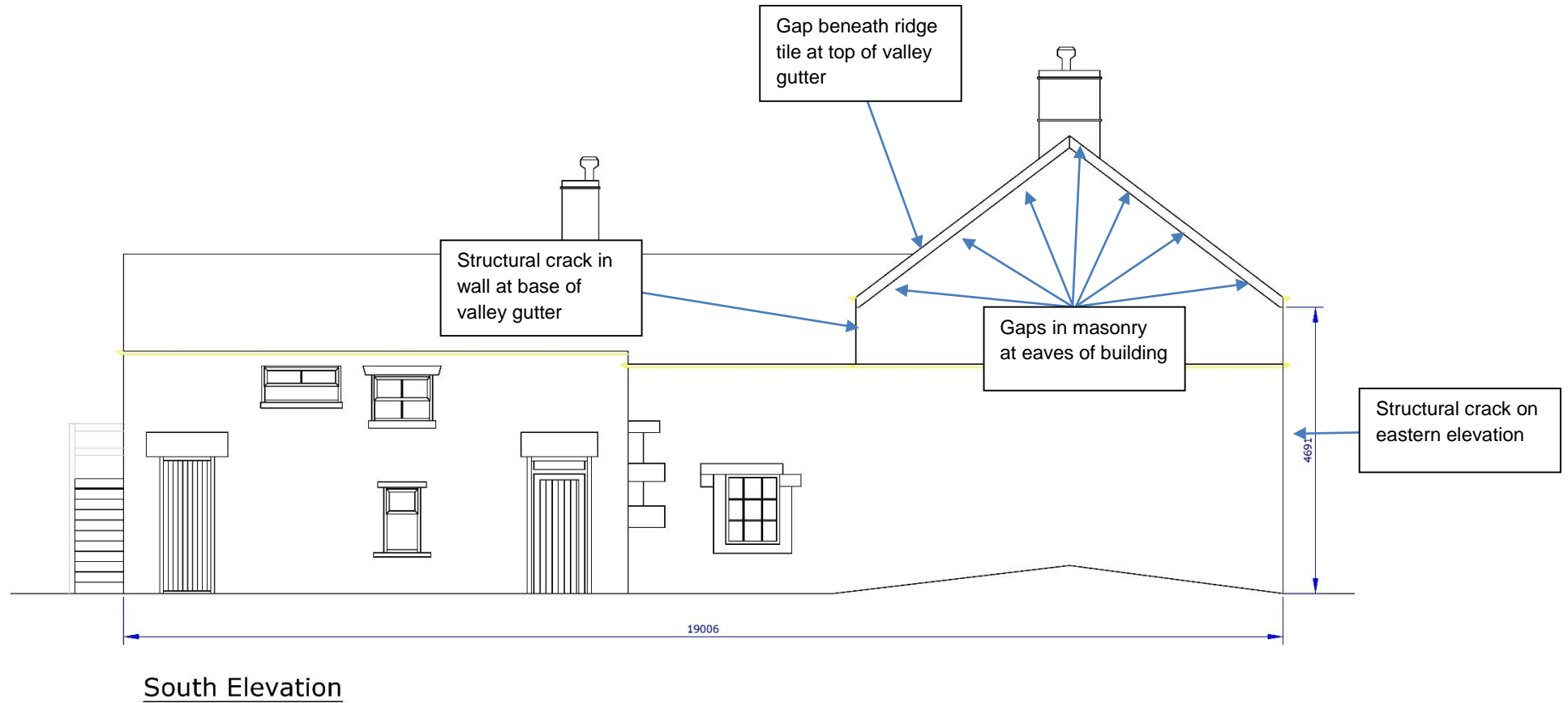
Alice Helyar PhD, MSc, BSc (Hons), MCIEEM, *Principal Ecologist*  
**Date:** 19/03/2018

## Appendix A – Legal Information

This report provides guidance of potential offences as part of the impact assessment. This report does not provide detailed legal advice and for full details of potential offences against protected species the relevant acts should be consulted in their original forms i.e. The Wildlife and Countryside Act, 1981, as amended, The Countryside and Rights of Way Act 2000, The Natural Environment and Rural Communities Act, 2006 and The Conservation of Habitats and Species Regulations 2017.

Species	Legislation	Offences	Notes on licensing procedures and further advice
<b>Species that are protected by European and national legislation</b>			
<b>Bats</b> <i>European protected species</i>	Conservation of Habitats and Species Regulations 2017 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.  <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.

## Appendix B – Potential Bat Roosting Features Plan



## Appendix C – Bat Roost Potential Criteria (Collins, 2016)

Suitability	Description of Roosting Habitat	Commuting & Foraging Habitats
Negligible	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.
Low	<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 un-vegetated 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>
Moderate	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>
High	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 known roosts.</p>



Appendix D – Bat Information for Contractors

# BATS



## Information, legal responsibilities and best practice for the construction industry

### Legal Protection

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

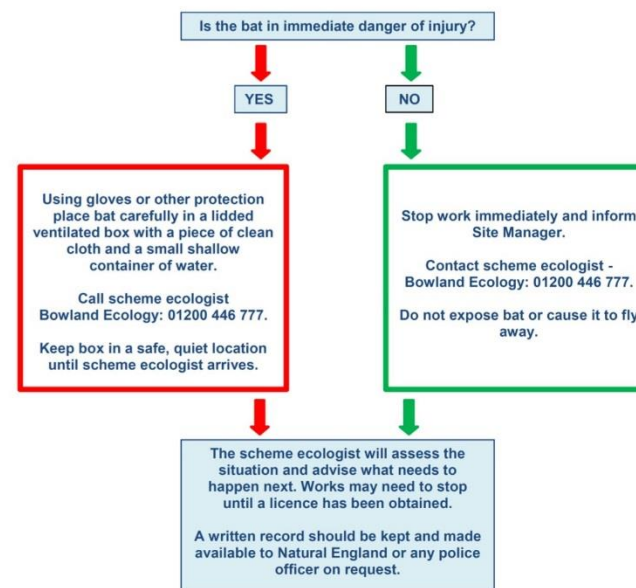
- Deliberately capture, injure or kill a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place (even if bats are not occupying the roost at the time);
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place;
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.

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.

#### Defences include:

1. Tending/caring for a bat solely for the purpose of restoring it to health and subsequent release.
2. Mercy killing where there is no reasonable hope of recovery (provided that person did not cause the injury in the first place – in which case the illegal act has already taken place).

### Found a bat during unsupervised works?

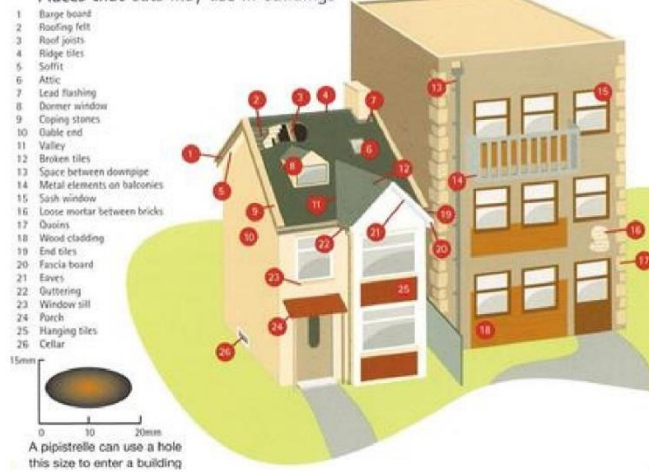


### Field signs of bat presence:

- Live or dead bats: the smallest UK bat species, the pipistrelle is only 3.5-4.5cm long.
- Droppings: bat droppings look like mouse droppings but will crumble between your fingers (they are dry and made entirely of insects).
- Feeding remains: piles of butterfly/moth wings are often left below bat feeding perches.



### Places that bats may use in buildings



Schematic from www.bats.org.uk

### Bats can roost in the following places:

- The top of gable end or dividing wall;
- The top of chimney breasts;
- Ridge and hip beams and other roof beams;
- Mortise and tension joints;
- All beams/ceilings/pipework (free hanging bats);
- The junction of roof timbers, especially where ridge and hip beams meet;
- Behind purlins;
- Between tiles and the roof lining;
- Under flat felt roofs;
- Under barge boards;
- In cavity walls;
- In cracks in stone or concrete;
- Behind peeling paint/wall coverings;
- Gaps behind window and door frames;
- Between window panes and timber boarding.
- In trees (cracks/holes/ivy cladding).

### Why wear gloves?

There is a small risk that some bats carry a rabies virus – European Bat Lyssavirus. The purpose of wearing gloves is to reduce the chance of being bitten, as the virus is transmitted via bat saliva. Thick leather gloves are appropriate for removing a bat from imminent danger but these should be clean.



In the event that you are bitten, wash the wound, gently but thoroughly, with soap and water. Speak to a health professional immediately, advising them that you have been bitten by a bat.

#### References:

- Bat Conservation Trust. August 2016. Why wear gloves when handling bats?  
 BCT Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3<sup>rd</sup> Edition, 2016