

Barn (2) and other buildings - Fooden Farm, Bolton-by-Bowland, BB7 4LS

Survey date: 05/01/2018

Introduction

Since 2008 bats have been included in the list of UK Biodiversity Indicators which aim to show the response of species to the pressures, changes and threats to our natural and built environment. The Local Planning Authority is required to take account of the impact of a development on protected species in accordance with current planning policy (National Planning Policy Framework):

A preliminary roost assessment was undertaken by David Fisher, EED Surveys (Licenced surveyor) at the request of John Wharton (Architect).

Scoping surveys may be undertaken during daylight hours at any time of year and are not dependent on whether bats or wild birds are active at the time of the site visit. The survey includes inspection of all external and internal features looking for evidence of roosting, perching and feeding or flight activity by bats.

The principle aim of the survey is to determine the presence of European Protected Species and to establish whether bats, barn owls and other nesting birds such as barn swallows, swifts and house martins have been active within any part of the building that is likely to be affected by the proposed development.

Ribble Valley Borough Council requires an appraisal of the likely impact of the proposed development on all bat species and other protected species that are present or likely to be present at the site, in addition to any mitigation, compensation and enhancement works that may be necessary before any works are undertaken.

From the developer's perspective, the primary objective of the survey is to ensure that works can proceed lawfully without breaching the Habitats Regulations.

Timing of survey / weather conditions

An initial site scoping visit to Fooden was made on 25/11/17.

A preliminary roost assessment of the buildings was carried out on 05/01/18 between 12.45 and 14.30. The weather was cool, dry and bright (min. temperature: 6°C, cloud: 90%, wind: calm, rain: nil); providing satisfactory survey conditions.

Personnel

The inspection was carried out by David Fisher (EED Surveys) - an ecological consultant and Natural England licence holder since 1989.

Current licences held:

Natural England Class Licence WML - A34 - Level 1 (Registration Number: 2015 – 17599-CLS-CLS)

Natural England Class Licence WML - A34 – Level 2 (Registration Number: 2015 – 12106-CLS-CLS)

Proposed works

Barn conversion to dwellings requiring removal of adjacent sheds and other buildings (figures 1 to 12).

Aims* of the survey

Collect robust data to provide an assessment of the potential impacts of the proposed development on bat populations and other protected species.

Facilitate the design of mitigation, enhancement and monitoring strategies for bats and all protected species.

Provide a clear assessment of risk to bats and other protected species enabling the Local Planning Authority to reach an informed planning decision.

Assist clients in meeting their statutory obligations.

Facilitate the conservation of local wildlife habitats, bat populations and other protected species.

*Adapted from 'Defining aims and objectives', p15 BCT Bat Surveys - Good Practice Guidelines,

Survey methodology

The survey methodology is designed to determine the likely presence of bats within the property and does not necessarily prove absence.

The survey protocol requires that a full visual inspection of the property is carried out; the survey covers all internal and external features of the building including any accessible roof voids and roof areas likely to be affected by the proposed works.

The survey methodology follows the recommended guidelines published by the Bat Conservation Trust - *Bat Surveys: Good Practice Guidelines, 2nd Edition, Hundt, L (2012)*, Natural England (*Survey Objectives, Methods and Standards as outlined in the Bat Mitigation Guidelines, 2004*) and Chapter 3 - Survey and Monitoring Methods, (*Bat Worker's Manual, JNCC, Mitchell-Jones AJ and McLeish, AP, 3rd Edition 2004*).

The search was made using a high-powered lamp (*Clu-lite CB2 - 1,000,000 candle power*), close-focussing binoculars (*Leica Trinovid 10 x 32 BN*) and digital camera (*Sony Cyber-shot HX300*) were used to view all likely areas of the building for the presence of bats - ie. droppings and urine spots, bat corpses, bat fly larvae, roost staining or evidence of feeding remains such as discarded moth and butterfly wings or other insects fragments typically found in a perching and feeding area.

Non-invasive survey methods were used to assess the use of the property by protected species.

Survey limitations

The survey has been undertaken during the winter hibernation period when bats are least active; the conclusions in this report are largely based on all available field evidence and records at the time of inspection.

The survey is designed to determine the likely presence of bats within the property and does not necessarily prove absence

Crevice-roosting bat species are able to roost within very narrow gaps, frequently less than 20mm wide; solitary roosting bats are sometimes overlooked during daylight inspections, particularly in situations where bats have gained access within rubble infill walls or beneath roof materials and other structural features.

Evidence of bat activity such as bat droppings, feeding signs and other indicative evidence such as staining on external walls and surfaces is frequently removed by the action of wind and rain – please note that absence of evidence of bats is not necessarily evidence that bats are not present.

Records whilst indicative of the bat species likely to occur within an area, do not confirm presence or absence of a species or habitat. Some local / regional records may contain unverified public data.

Bats in the Ribble Valley

At least ten species of bats are likely to occur within in the Ribble Valley and Forest of Bowland AONB. Bats are present within a very wide range of habitats, both urban and rural, particularly where there are areas of standing open water, river channels, broadleaved woodlands and conifer plantations and other high quality semi-natural habitats where an abundance of insect prey and roosting opportunities are likely to be present.

Although some species are largely dependent on trees and woodland, all species are known to rely on buildings for at least part of their life cycle; these include all types of residential properties, barns and agricultural units.

Contrary to popular belief, buildings constructed since 1970 are frequently used as maternity and nursery sites by breeding bats during the warmest summer months (May to August) when pregnant female bats gather in the secure sites to give birth to their young.

During late summer and autumn adults and young bats leave their breeding roosts and disperse within the wider district; there is also increasing evidence of seasonal movement and migration by certain species. All UK bat species feed exclusively on insect prey; hibernation between October / November and March / April is a period of relative inactivity, enabling bats to survive the winter period when food supply is least available.

Pre-existing information

An online data search has found no reference to ecological (bat) surveys or records relating to this property.

A preliminary roost assessment was also undertaken on a nearby barn at Fooden (EED report B1890) on 05/01/18, no evidence of roosting bats or barn owls was found.

Location of the property

(NGR: SD 800 489) Elevation: 125 metres.

The site is within the boundary of the Forest of Bowland AONB. The barn is located at Fooden approximately 1.2km east south-east of Bowland-by-Bowland village centre; the district is rural in character and the site is surrounded by extensive agricultural land, typically sheep pasture with several mixed plantations, small wooded coverts with mature broadleaved hedgerows nearby. The buildings are situated within a small sheltered valley and are close to neighbouring dwellings including historic Fooden Hall, a late C17th listed property and nearby Fooden Farmhouse of similar date and also listed building.

The site is adjacent to open countryside within 200 meters of Moorfield Plantation to the north and the River Ribble to the south. The Ribble is the most significant watercourse within the locality forming a well-wooded channel through a prominent limestone gorge within 400 meters of the barn.

Although the building is not adjacent to any designated nature conservation sites, the nearby Ribble Gorge has extensive semi-natural broadleaved woodlands along its course, parts of which have been designated as Biological Heritage Sites (BHS) by Lancashire County Council and the Lancashire Wildlife Trust.

The barn is not adjacent to woodland or any major watercourse, although a small beck flows within 20 metres of the property and provides habitat connectivity to a deeply wooded tributary of the River Ribble (figure 1).

Description of the property

The property is a substantial building comprising two adjoining stone barns (figures 2 and 3). Barn 'A' is a 4-bay open portal building with stone construction and duo-pitched rafter-with-purlin roof clad in profiled sheet alloy with skylight panels (figures 4 and 5). The barn is a two storey building on two levels with a large internal timber loft (figure 6) with a dairy / milking parlour beneath. The main barn is stone-flagged and steps lead to a basement dairy with concrete floors and animal cubicles.

The internal walls are well-pointed; the building is well-maintained and very clean; all areas are dry, cool and well-ventilated; several skylights (figure 4), windows and open portal wagon door entrance provide natural light.



Figure 1: Location of the property (NGR: SD 800 489) showing proximity to a deeply wooded tributary of the River Ribble.

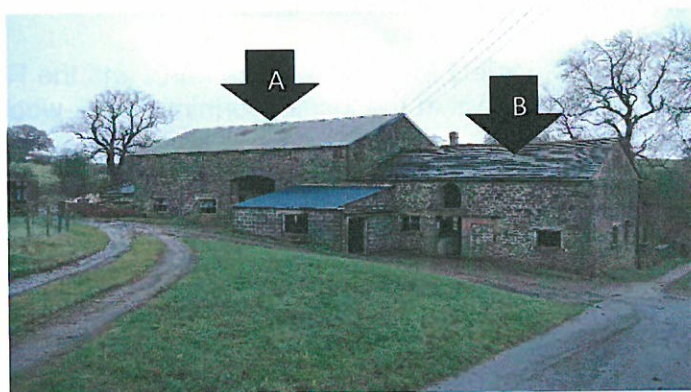


Figure 2: north-west elevation (front)



Figure 3: south-east elevation (rear)



Figure 4: barn 'A'



Figure 5: roof in barn 'A'



Figure 6: loft in barn 'A'

Barn 'A' leads (via steps) down to the adjoining building shown as Barn 'B' in figure 2; the two storey building has a 3-bay rafter-with-purlin roof clad with unlined stone slates Figure 7); a timber loft area shows some ingress of water and a weakened timber floor (figure 8); the under-croft area on the ground floor (figure 9) has several animal cubicles and concrete floor. The barn has not been used for several years and all areas are generally clean, cool, dry and well-ventilated.

The building has several unglazed windows and doors; the barn is likely to attract roosting bats and birds occasionally; swallows have nested within the under-croft and at least one barn owl has roosted within the loft.



Figure 7: barn 'B' roof



Figure 8: roof in barn 'A' - loft



Figure 9: loft in barn 'A' – ground floor

To the front of the barns is a single storey lean-to shed with block wall construction, concrete floor and mono-pitched profiled sheet alloy roof formerly used to accommodate machinery / milking equipment. The shed is dry, cool and well-ventilated, providing negligible potential for roosting bats.

Several nearby buildings include a derelict single storey garage with concrete panel construction (figure 10), a derelict two-bay brick shed dated 1930 without a roof and fully open to the weather (figure 11); there is also a small block work shippon with concrete floor and mono-pitched corrugated sheet steel roof. All the structures have negligible conservation value and are unlikely to attract roosting bats or nesting barn owls.



Figure 10:

Figure 11:



Figure 12:

Potential of the buildings to support roosting bats and nesting wild birds				
	Bats	Barn owls	Barn swallows	Other nesting birds
Barn 'A'	Perching and feeding bats may occasionally roost in loft areas	No evidence found but the loft area has some roost potential	Evidence of old nests throughout the building	Potential for nesting in some areas of the barn but no evidence was found
Barn 'B'	No evidence was found	Single feeding pellet found in loft area	Nests found in under-croft beneath timber loft	No evidence was found
Other buildings nearby	No conservation value	No conservation value	No evidence was found	No evidence was found

Negligible potential	Low potential	Moderate potential	High potential
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Table 1: Potential of the buildings to support protected species.

Results

Both barns have low / moderate potential to support roosting bats and barn owls (Table 1). A small number of bat droppings were found scattered across the timber loft area in barn 'A'. Additionally, there is evidence of discarded insect wings on the northernmost gable end wall of barn 'A' – several dozen noctuid moth wings were noted on stonework and on floor of the loft directly beneath the gable apex (figures 5 and 6) in addition to a small number of small tortoiseshell butterfly wings on the loft floor.

No other evidence of bat activity was noted in any other parts of the property.

A single barn owl pellet was found on the floor of the timber loft in barn 'B'.

Old swallow nests were noted on some timber rafters in the under-croft beneath the loft floor in barn 'B'.

Evaluation of survey results

Solitary bats or low numbers of perching, feeding and resting individuals are likely to enter the buildings throughout the year. Feeding signs such as discarded insect prey in the loft area of barn 'A' indicate bats have been perching close to the apex of the gable end wall (figure 5); although some day / night roosting by individuals is possible within the roof apex, maternity roost / hibernation roost activity is unlikely.

At least one evening emergence / or dawn re-entry survey is recommended during the optimal survey period (May to September) to identify bat species, quantify numbers and assess roosting activity within the barn.

There is evidence of barn owl activity in the loft area of barn 'B' – whilst occasional roosting activity is possible, nesting is very unlikely given the absence of any nesting signs in this building.

Barn swallows are likely to enter the barns during the period from late April to September; the key areas being the ground floor under-crofts in barns 'A' and 'B' and the roof area of the loft in barn 'A'.

Impact assessment

The conservation value of both barns is currently low / moderate, therefore further survey effort is required.

The risk of causing disturbance to roosting bats is currently low / moderate*.

Negligible risk: it is highly unlikely any bat species have been active within any part of these structures.

Low risk: there is only low risk of disturbance to solitary bats or small numbers of common and widespread bat species.

***Low / moderate risk:** caution required; activity of common / rarer species is possible, including the presence of occasional / regular night perching and feeding activity or the presence of small numbers of rarer species (but not a maternity or hibernation site).

Moderate risk: caution required; there is moderate risk of disturbance to common bat species; activity may include the presence of regular / significant feeding perches and signs of feeding, a regularly used day / night roost or a maternity site of a common and widespread species or the likely presence of low numbers of rarer species ('rarer' as defined within the local context).

Moderate / high risk: considerable caution is required; this category may include a maternity site of rarer species.

High risk: considerable / extreme caution is required; there is a significant risk of causing disturbance to roosting bats at this site including large numbers of common species, a maternity site of locally rare or rarest UK species or a significant hibernation site for rare or rarest species; this is likely to be a site meeting the SSSI guidelines.

Table 1: *Based on Guidelines for proportionate mitigation - Bat Mitigation Guidelines (2004) fig. 4, page 39

Summary and recommendations

Bats

Since the scale of impact of the development at site level on local bat populations is likely to be **low / moderate**, further survey effort is required during the optimal survey period (May to September).

A minimum of one evening emergence survey or one dawn re-entry survey should be carried out by a licenced surveyor to determine the level of bat activity at the property and to establish:

(a) the species likely to be present, (b) the number of bats, (c) roost status, (d) the level of bat activity around the buildings.

(Refer to Mitigation guidance – Annex 1).

Nesting wild birds

There is evidence of roosting and nesting barn swallows in the buildings. Swallows are faithful to old nesting locations and birds are likely to return to the same sites each year. Birds and their eggs must not be

disturbed or their nests damaged or destroyed (including when birds are nest building) during the nesting season.

Recommended:

The use of artificial nest platforms in open portal garages and car-ports is highly beneficial to nesting birds.

NESTING SWALLOWS – Mitigation guidance

Making provision for nesting swallows



Example:

SCHWEGLER No 10 Swallow Nest
(for locating inside out-buildings to encourage barn swallows).

The location of the property is attractive to roosting and nesting swallows.

Wherever possible, the provision for nesting swallows should include design modifications such as inclusion of covered areas to encourage nest building and / or use of artificial nest platforms.

Barn swallows (*Hirundo rustica*) are likely to be present during the spring and summer at this site. Swallows particularly are faithful to the same sites and will return each spring to the same site. Long-term monitoring of population trends has shown significant declines in parts of the UK.

It is increasingly difficult for barn swallows to find suitable nesting opportunities in buildings. Using artificial nest platforms can encourage swallows and martins to nest under eaves and inside open portal structures such as stables and garages.

The design of the proposed development should aim to provide nesting opportunities for swallows to compensate for the loss of nests in building 'C'

All birds, their nests and eggs are protected by law and it is an offence (with certain exceptions) to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.

ANNEX 1

MITIGATION GUIDANCE – minimising the risks to roosting bats

Mitigation refers to the practices adopted to reduce or remove the risk of disturbance, injury or death of a protected species or damage to a roost. The Bat Mitigation Guidelines (Natural England, 2004) define mitigation as "...measures to protect the bat population from damaging activities and reduce or remove the impact of development".

ACTION	METHOD / NOTES
1. Further survey effort	REQUIRED: a summer activity survey is required between 1 May and 30 September and a report on the findings of the survey submitted to the local planning authority.
2. Timing constraints	Not required
3. Detailed method statement	Not required

4. EPS Licence requirement	NOT REQUIRED A licence is only required if the proposed activity is likely to result in an offence. Mitigation measures including the careful timing of the works may be sufficient to avoid causing significant disturbance to roosting bats. Compensation works (eg. the creation of new roosting opportunities) may also be required to offset any damage caused by the development, eg. providing artificial bird nesting platforms.
5. Removal of roofing materials	General recommendation: Contractors should be aware that small crevice-dwelling bats such as pipistrelles are occasionally exposed beneath roofing materials, sometimes within stonework or between old timber door frames, timber joints and wall claddings. In the unlikely event of any bats being exposed during the removal of the roof spars, roof slates, ridge tiles, verge tiles, copings and timber battens, operations in those areas should stop until the site has been inspected by a licenced surveyor.
6. Legal protection	Site contractors and project managers should be fully aware of the legal protection afforded all species of bat in the UK and procedures should be in place to mitigate for the potential impact on bats - see notes on 'Bats and the Law' in this report.
7. Further information and advice	EED Surveys (David Fisher): 07709 225783 (mobile) email: earthworksuk@yahoo.co.uk The Bat Conservation Trust (BCT) provides a bat helpline: 0345 1300 228; in an emergency, BCT will call the nearest volunteer bat worker in the area to arrange a site visit. www.bats.org.uk email: enquiries@bats.org.uk
8. Nesting barn swallows	Provision for nesting swallows should include design modifications such as inclusion of covered areas to encourage nesting building and / or use of artificial nest platforms. All birds, their nests and eggs are protected by law and it is an offence (with certain exceptions) to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built. If exclusion of nesting / roosting swallows is required before building works are carried out, the closure of the buildings must take place during before the end of winter (31 March).

ANNEX 2

Wildlife legislation – Bats and the law

All bat species in the UK receive full protection under the Wildlife and Countryside Act 1981 (amended by the Environment Protection Act 1990). The Countryside and Rights of Way Act 2000 amends the Wildlife and Countryside Act to also make it an offence to intentionally or recklessly damage, destroy or obstruct a place that bats use for shelter or protection. All species of bats are listed on Schedule 5 of the 1981 Act, which makes it an offence to:

- *intentionally kill, injure or take any wild bat.*
- *intentionally or recklessly damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection. This is taken to mean all bat roosts whether bats are present or not.*
- *intentionally or recklessly disturb any wild bat while it is occupying a structure or place which it uses for shelter or protection.*

The protected status afforded to bats means planning authorities may require extra information (in the form of surveys, impact assessments and mitigation proposals) before determining planning applications for sites used by bats. Planning authorities may refuse planning permission solely on grounds of the predicted impact on protected species such as

bats. Recent case law has underlined the importance of obtaining survey information prior to the determination of planning consent¹.

*"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by a development proposal, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision."*²

All British bat species are included in Schedule 2 of the Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007, (also known as Habitats Regulations) which defines 'European Protected Species' (EPS).

¹ Bat Mitigation Guidelines, AJ Mitchell Jones, Joint Nature Conservation Committee, (2004) ISBN 1 86107 558 8

² Planning Policy Statement (PPS9) (2005), Biodiversity and Geological Conservation. ODPM.

Protected species (Bats) and the planning process

Our built environment has the potential to have major negative impacts on biodiversity. However, if done sensitively, the development and refurbishment of buildings can, in fact, increase the ecological value of the site.*

For development proposals requiring planning permission, the presence of bats, and therefore the need for a bat survey, is an important 'material planning consideration'. Adequate surveys are therefore required to establish the presence or absence of bats, to enable a prediction of the likely impact of the proposed development on them and their breeding sites or resting places and, if necessary, to design mitigation and compensation. Similarly, adequate survey information must accompany an application for a Habitats Regulations licence (also known as a Mitigation Licence) required to ensure that a proposed development is able to proceed lawfully¹.

The term 'development' [used in these guidelines] includes all activities requiring consent under relevant planning legislation and / or demolition operations requiring building control approval under the Building Act 1984.

Natural England (Formerly English Nature) states that development in relation to bats "covers a wide range of operations that have the potential to impact negatively on bats and bat populations. Typical examples would be the construction, modification, restoration or conversion of buildings and structures, as well as infrastructure, landfill or mineral extraction projects and demolition operations".²

* Designing for Biodiversity, RIBA (second Edition - 2013) ¹ Bat Surveys, Good Practice Guidelines, BCT (2007). ² Tony Mitchell-Jones, (BMG, 2004)

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ANNEX 3

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