EED

3 Meadowlands, Low Moor, Clitheroe. Lancashire. BB7 2ND
Office: 01200 425113 Email: earthworksuk@yahoo.co.uk

320161027P

**John Wharton**

Craven House
Brook View
Carleton
Skipton
BD23 3EX

21 October 2016

Job ref: B 1743

Dear John

Re: EPS – scoping survey: Fish House Farm, Chipping, Preston, Lancashire. PR3 2GQ

You have requested a preliminary roost assessment and site scoping survey (European Protected Species) on behalf of your client Mr Alan Carr, for conversion of two stone barns to dwellings and demolition of several out-buildings and agricultural structures at Fish House Farm, Chipping.

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). RVBC requires an appraisal of the likely impact of the proposed development on all bat species that are present or likely to be present at the site, in addition to any mitigation and enhancement works that may be necessary.

As a consequence of the historical declines in bat populations during the second half of the twentieth century, all bats and their roosts are protected by UK law. The depletion of natural habitats throughout the UK means that some bat species are now more than ever dependent on houses and other structures as roosting sites. It is this dependence that makes them vulnerable to redevelopments that can result in damage or destruction of a roost, particularly maternity roosts, resulting in negative impacts on a local bat population.

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 daylight scoping survey has found minor evidence of protected species within the two stone barns only; further survey effort on these buildings is required during the optimal survey period (May to August) to determine the level of bat activity and assess the likely risk to protected species. Following the summer surveys a method statement outlining appropriate mitigation and compensation measures should be submitted for comment by the local planning authority prior to any building works on the barns being carried out.

The demolition of all remaining out-buildings and sheds should proceed without a requirement to obtain a development licence (EPSL) since the proposed works are unlikely to result in a breach of the Habitats Regulations.

Please find a copy of the survey report now attached.

Yours sincerely

David Fisher
Director (EED Surveys)

# European Protected Species - SURVEY REPORT

Fish House Farm, Chipping, Preston, Lancashire. PR3 2GQ

Date of survey: 10/10/16

## Introduction

A scoping survey of buildings at Fish House Farm was undertaken on Monday 10 October 2016 between 14.00 and 16.30. This type of survey can be undertaken during daylight hours at any time of year and is not dependent on whether bats or wild birds are active at the time of the inspection.

An assessment of both stone barns and several semi-derelict agricultural out-buildings and sheds involved detailed inspection of the external and internal features of the buildings to look for evidence of flight, feeding, perching or other indicative signs of activity normally associated with bats and wild birds.

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 have been active within any part of the buildings that are likely to be affected by the proposed development. Buildings assessed during the sub-optimal (winter) period as having moderate or high potential for supporting protected species are likely to require additional survey effort during the optimal (summer) survey period when species are most active.

The local planning authority (LPA) is required to take account of the impact of a development on protected species in accordance with the National Planning Policy Framework (NPPF). Ribble Valley Borough Council requires an appraisal of the likely impact of the proposed development on all bat species that are present or likely to be present at the site, in addition to any mitigation and enhancement works that may be necessary.

From the developer's perspective, the primary objective of a survey for protected species is to ensure that a development can proceed lawfully without breaching the Habitats Regulations.

## Timing of survey / weather conditions

The scoping survey was carried out on Monday 10 October 2016 between 14.00 and 16.30. The weather was mild, dry and bright (min. temperature: 13°C, cloud: 25%, wind: light NE breeze, rain: nil) providing optimal conditions for this level of survey.

## Personnel

The inspection was carried out by David Fisher (EED Surveys) - an ecological consultant with more than 25 years of experience in field survey work and development issues relating to protected species. The surveyor has held a licence since 1989 and is a volunteer bat worker with Natural England (via the BCT), a participating member of several UK bat groups and founder member of the Bowland and Craven Bat Research Group.

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)

**Aims of the survey**

The key aims of the survey are to:

- Collect robust data following good practice guidelines
- Facilitate the design of mitigation, enhancement and monitoring strategies for bats where appropriate
- Provide baseline information with which the results of post-development monitoring can be compared
- Provide clear information to enable the LPA and licensing authority to reach a robust decision
- Assist clients in meeting their statutory obligations
- Facilitate the conservation of bat populations

**Objectives of the survey**

The broad objectives of the survey are to:

- observe, assess and record suitable roosting, feeding, foraging and commuting habitat for bats (and other protected species) both on site and in the surrounding area.
- determine the actual or potential presence of bats (and other protected species) and the need for further survey and / or mitigation.

Defining aims and objectives, p15 BCT Bat Surveys - Good Practice Guidelines, (3rd edition 2016)

*The overall aim of surveying at a proposed development site is to collect robust data to allow an assessment of the potential impacts the proposed development will have on the bat populations present on and around the site. . . The data allow the developer to decide whether to proceed with the proposal as it stands, or whether to modify it. Proposals for appropriate mitigation, compensation and enhancement should be based on the survey data and impacts.**

*page 17 - Bat Surveys, Good Practice Guidelines, 2nd Edition, BCT, (2012)

**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 aims to cover all internal and external features of the building including any accessible roof voids and out-buildings that are 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

Crevice-roosting bat species are able to roost within very narrow gaps, frequently less than 25mm wide; solitary roosting bats are sometimes overlooked during daylight inspections, particularly in situations where bats have gained access within rubble infill walls and beneath roof materials and other significant 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; as a cautionary principle it should be assumed that the absence of evidence of bats is not necessarily evidence that bats are not present.

National Biodiversity Network (NBN) and other data sources, whilst indicative of the bat species likely to occur within a 10km-grid square, do not confirm presence or absence of a species or habitat. Local bat records are compiled from a number of reliable sources but may also include unverified public data.

**Pre-survey data search** (Site location: NGR: SD 610 440)

The pre-survey data search includes the following sources:

(1) European Protected Species (EPS) - ie. species records of local, regional or national significance.

(2) National Biodiversity Network (NBN*) terrestrial mammal records (chiroptera).

(3) Local bat records: (i) North Yorkshire Bat Group (NYBG) (ii) EED Surveys (iii) other ecological consultants.

(4) Interactive maps: *Natureonthemap* (Natural England) and *Magic.gov.uk*.

*National Biodiversity Network (NBN) and other data sources whilst indicative of the bat species likely to occur within a 10km-grid square, do not confirm presence or absence of a species or habitat.

The following bat species are frequently recorded within the 10km national grid squares: SD63 and SD73:

| Common name | Scientific name | Status of local population |
|---|---|---|
| Natterer's bat | (*Myotis nattereri*)* [1] [2] | widespread/common |
| Whiskered bat | (*M. mystacinus*) [1] | widespread |
| Brandt's bat | (*M. brandtii*) | widespread |
| Daubenton's bat | (*M. daubentonii*) * [1] [2] | widespread/locally common |
| Brown long-eared bat | (*Plecotus auritus*)* [1] [2] | widespread/locally common |
| Common pipistrelle | (*Pipistrellus pipistrellus*)* [1] [2] | widespread/common |
| Soprano pipistrelle | (*P. pygmaeus*) [1] [2] | widespread/locally common |
| Noctule bat | (*Nyctalus noctula*) [1] [2] | widespread |

Bat species rarely recorded within the district:

| | | |
|---|---|---|
| Nathusius's pipistrelle | (*P. nathusii*) [2] | current distribution unknown |
| Lesser horseshoe bat | (*Rhinolophus hipposideros*) | locally rare |

*NBN data [1]East Lancashire Bat Group [2]EED surveys

## Pre-existing information

An on-line data search has found no bat records at this location.

The surveyor is not aware of any previous EPS scoping surveys undertaken at this site.

## Location of the property

The property is located at NGR: SD 610 440 at an elevation of approximately 165 metres.

The farm is located in a rural location within the boundary of the Forest of Bowland AONB approximately 1km NW of Chipping. The property is adjacent to open countryside with extensive grazing land nearby (figs. 1 to 3).

Although the farm buildings are situated close to the highway, the site is adjacent to extensive permanent pasture. The nearest riparian woodland is located at nearby Chipping Brook, a well-wooded moorland clough some 100 metres south-east of the property. The woodland and watercourse is likely to provide moderate feeding, foraging and commuting habitat for several bat species known to be present within the wider district.

A local data search has shown there are no designated nature conservation sites immediately adjacent to the property ie. Special areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI), Biological Heritage Sites (BHS), National Nature Reserves (NNR's), Local Nature Reserves (LNR's) or Regionally Important Geological and Geo-morphological Sites (RIGS).


Figure 1: Location of Fish House Farm, Chipping PR3 2GQ – (NGR: SD 610 440)

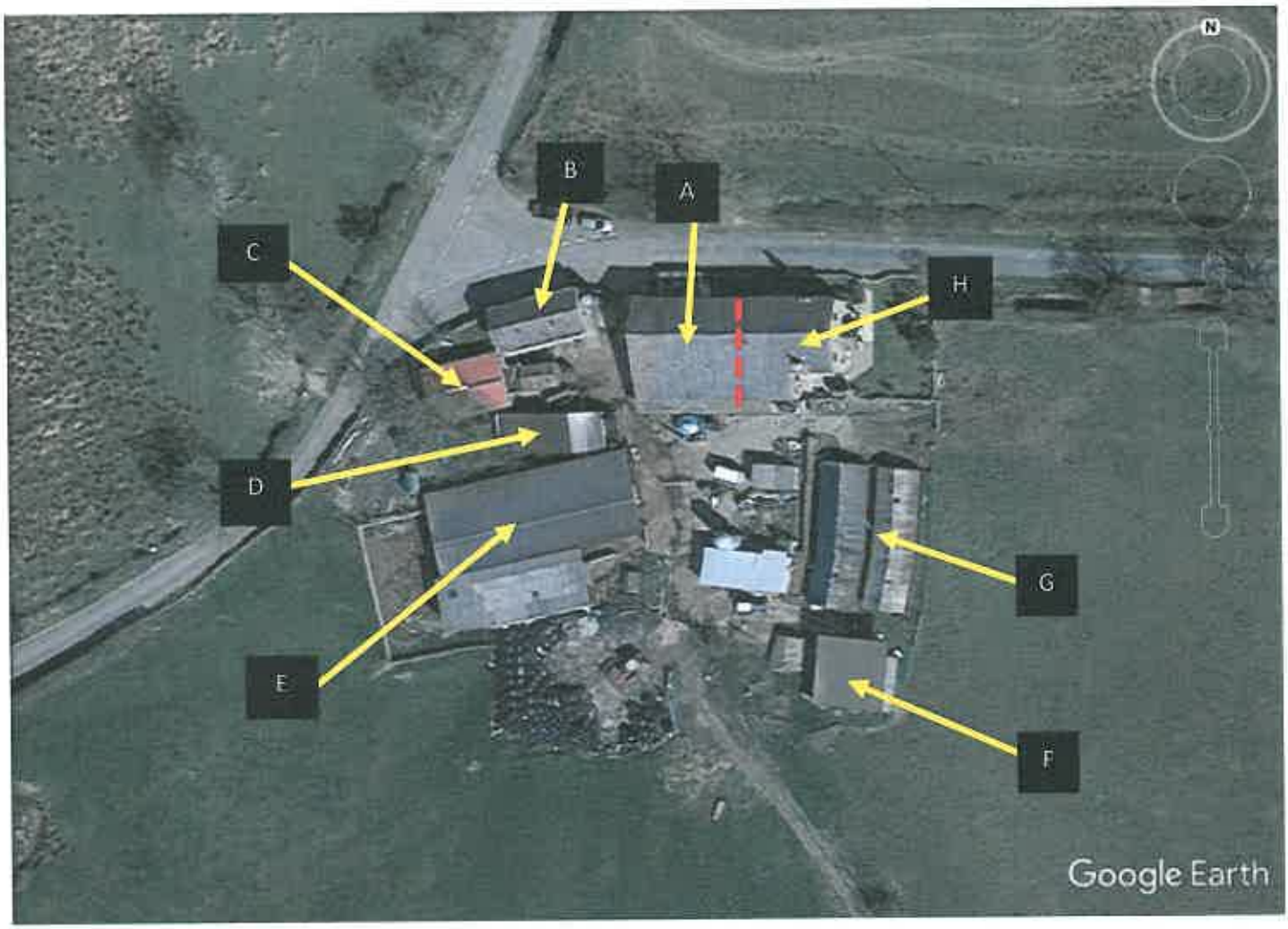


Figure 2: Aerial view of the property at Fish House Farm showing location of buildings. (Google earth image).

Figure 3: View looking south-east across over adjacent farmland to Longridge Fell.

**Description of the property**

The property comprises farmhouse with attached stone barn, small detached stone barn, animal cubicle sheds, outbuildings and miscellaneous agricultural units - located as buildings A to H in figure 2.

Building A:

Stone barn attached to farmhouse – (NB the farmhouse is not included within the current planning application).

This is a large 4-bay barn with timber lofts above the old milking shed and animal cubicles. The duo-pitch roof has rafter-with-purlin construction; the blue slate roof is lined with a bitumen felt. The ground floor comprises animal cubicles with concrete floors; several glazed windows provide natural light to the ground floor crofts. Internal walls to the barn are mostly lime / mortar-pointed; there are internal block walls within the barn / dairy.

Attached to the front elevation of the barn (north) is a lean-to shed; this structure formerly housed the power unit for the dairy; the building has rendered internal block walls and mono-pitch corrugated panel roof.

(low/moderate potential for attracting roosting bats).

Building B:

Detached 4-bay stone barn with first floor timber loft extending the length of the building. The ground floor has three separate areas each divided by internal brick walls. The western gable end has been re-built to include an internal block-work apex wall. Each room on the ground floor has a timber door and glazed windows although many of the glass panes are absent.

The loft area is open to the eaves; the rafter with purlin roof construction supports an unlined slate roof; four glazed skylights provide good natural light inside the loft. The area is generally lean, dry and well-ventilated.

(Moderate potential for attracting roosting bats).

Building C:

Cubicle shed with concrete panel walls and duo-pitched box section alloy roof; the building has a concrete floor and the majority of the windows are boarded. The structure is semi-derelict, cold, draughty and damp.

(Minimal potential for attracting roosting bats).

Building D:

The single storey stable block has 6 stables separated by low block-work partition walls. The building has a mono-pitch box alloy roof and concrete floors; the building is cold dryand well-ventilated with good natural light.

(Low potential for attracting roosting bats).

Building E:

Animal sheds with cubicles; two timber-framed open-portal buildings with an adjoining steel-framed shed each with box alloy roofs and some Yorkshire boarding to walls. Three separate structures mostly with animal cubicles; all areas have concrete floors; all the buildings are inter-connected and several animals are present. The sheds are generally light, cold and well-ventilated.

(Minimal potential for attracting roosting bats).

Building F:

A two bay open-portal shed with mono-pitched box alloy roof. The shed has block-wall construction, concrete floors and steel doors. There is a small stone-built WC to the rear with an unlined mono-pitch blue slate roof.

(Both structures have minimal potential for attracting roosting bats).

Building G:

Two single storey timber sheds with duo-pitched bitumen felted roofs; one of the buildings has an earth floor, the other has a concrete floor with animal cubicles. The sheds are generally light, cold, damp and draughty.

(Low potential for attracting roosting bats).

Building F:

Farmhouse (currently occupied)

(NB. the farmhouse is not included in the planning application)

---

**Proposed works**

Conversion of stone barn 'A' into two dwellings.

Conversion of barn 'B' to single dwelling.

Demolition of all redundant sheds 'C' to 'G'

*Reference: Drawings: John Wharton Architect, Craven House, Brook View, Carleton, Skipton. BD23 3EX*

## Images: Fish House Farm - 10/10/16

Figure 4: Barn 'A'

Figure 5: Barn 'A'

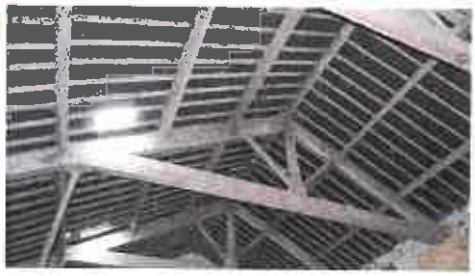

Figure 6: Roof barn 'A'

Figure 7: ground floor cubicles in barn 'A'

Figure 8: Lean-to shed /dairy on Barn 'A'

Figure 9: Front (north) elevation Barn 'B'

Figure 10: Rear (south) elevation barn 'B'

Figure 11: loft area barn 'B'

Figure 12: roof detail barn 'B'

Figure 13: Cubicle shed 'C'

Figure 14: steel-framed shed 'E'

Figure 15: timber-framed sheds 'E'

Figure 16: animal shed 'F'

Figure 17: sheds 'G1' (left) and 'G2' (right)

Figure 18: semi-derelict shed 'G2'

## Survey results

A preliminary roost assessment has been carried out on all buildings (excluding the farmhouse - building G).

The buildings were assessed for their potential to support protected species based on the field evidence found during a daylight scoping survey to identify signs of feeding, perching, roosting and nesting (bird) activity:

| Potential of buildings to support roosting bats, barn owls and barn swallows | | | |
|---|---|---|---|
| | Bats | Barn owls | Barn swallows |
| Barn A | | | |
| Barn B | | | |
| Dairy lean-to (at front of Barn A) | | | |
| Building C | | | |
| Building D – stable block | | | |
| Buildings E – animal / cubicle sheds | | | |
| Building F – cubicle shed | | | |
| Stone WC at rear of building F | | | |
| Buildings G – poultry / cubicle sheds | | | |

| Minimal potential | Low potential | Moderate potential | High potential |
|---|---|---|---|

Table 1: Potential of buildings to support protected species.

### Bats

Signs of bat activity were found within both of the stone barns; a relatively small number of discarded insect wings were noted inside barn 'B' – approximately 15 butterfly wings and wing fragments (small tortoiseshell) were present on the floor of the undercroft and a further 18 wings and wing fragments on the floor of the loft. There was no evidence of bat droppings within this building.

In barn 'A' only 4 discarded butterfly wings were noted on the floor of a small timber loft. There was no evidence of bat droppings in any part of the building.

Signs of bat roosting, perching and flight activity were absent from all remaining buildings; these buildings have minimal / low potential for supporting bat activity (Table 1).

### Barn owls

There is no evidence of barn owl activity within any of the buildings: both of the stone barns have moderate potential to support roosting / nesting owls although there are no signs that owls have been present (Table 1).

### Barn swallows

Swallow nests were positively recorded inside two of the small under-crofts in barn 'B' (Table 1).

### Evaluation of results

There is only minor evidence of perching bats at the site; the presence of discarded insect prey within the two stone barns is indicative of low numbers of long-eared bats *(Plecotus auritus)* sporadically / infrequently entering the buildings to night-perch and feed on hibernating butterflies. Long-eared bats are opportunistic feeders commonly found entering open buildings and barns throughout the district particularly where there is woodland habitat nearby.

The small quantity of insect prey present and complete absence of bats droppings and other indicative signs of bat activity suggests only solitary bats or very low numbers of bats are occasionally active in these buildings.

Regular day / night roosting activity, breeding and hibernation by bats within these buildings is unlikely given the absence of field evidence.

The survey was undertaken outwith the optimum survey period for bat activity.

Since the two barns have moderate potential to support roosting bats in addition to the presence of nearby woodland and water-course, additional survey effort is required during the optimal survey period (summer) to comply with current BCT guidance.

**RECOMMENDATION 1:**

A minimum of two activity surveys should be carried out during the period 1 May to 31 August by a qualified and licenced surveyor to assess bat activity within the barns. The surveys should comprise at least one dusk emergence and one dawn re-entry survey; the survey results should be included in a Method Statement for comment by the local planning authority before any building works are carried out on the barns.

**RECOMMENDATION 2:**

Demolition of the out-buildings and cubicle sheds should proceed with caution for the unlikely presence of bats.

The optimal time for demolition works is during the late autumn / winter period (November to March) when roosting bats and swallows are least likely to be disturbed.

**Scale of impact**

The scale of impact of the proposed barn conversions on roosting bats is likely to be **low / moderate***

| |
|---|
| ***Minimal:** 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 2: *Based on Guidelines for proportionate mitigation - Bat Mitigation Guidelines (2004) fig. 4, page 39

## Summary and recommendations

### BATS

**Further survey effort is required** during the optimal survey period (May to August) to establish the following information about the feeding, foraging and roosting behaviour of bats within the stone barns:

(1) species (2) number of bats likely to be present (3) assessment of roost status (4) bat activity over the site.

To comply with current BCT / Natural England guidelines, the recommended minimum number of survey visits for sites with 'moderate bat roost suitability' is two separate surveys ie. one dusk emergence and one dawn re-entry survey during the optimal survey period between 1 May and 31 August.

Following the activity surveys **a method statement will be required** by the local planning authority outlining the likely impacts of the proposed development and the actions that are required to avoid or significantly reduce the damaging effects of the alterations and maintain the favourable conservation status of the species.

### BARN OWLS

There is currently no evidence of barn owls at the property (October 2015).

### BARN SWALLOWS

Nesting and roosting swallows are likely to be present in some of the buildings during spring and summer.

Precautions are required to ensure that wild birds, their eggs and nests are not disturbed or destroyed during the nesting season. Current guidance recommends provision of nesting opportunities at the property once the development is completed. The use of artificial nest platforms for birds is recommended.

If exclusion of birds is required, this should be undertaken during the winter period before nesting birds return.

## 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 minimum of one dusk emergence and one dawn survey of bats during the optimal survey period 1 May to 31 August. The survey should follow current recommendations (p 52) in BCT's Bat Surveys 3rd Edition, Good Practice Guidelines, 2016. |
| 2. Timing constraints | Likely to be required to avoid or reduce the impact of the proposed works on roosting bats. |
| 3. Detailed method statement | **REQUIRED** by the local planning authority on completion of the bat activity surveys. |
| 4. EPS Licence requirement | **UNLIKELY TO BE REQUIRED**<br><br>A licence is only required if the proposed activity is likely to result in an offence.<br><br>Mitigation measures including the careful timing of the works may be sufficient to avoid causing significant disturbance to roosting bats.<br><br>Compensation works (eg. the creation of new roosting opportunities) may also be required to offset any damage caused by the development. |
| 5. 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. |
| 6. Further information and advice | EED Surveys (David Fisher): 01200 425113 (office) or 07709 225783 (mobile)<br><br>email:earthworksuk@yahoo.co.uk<br><br>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.<br><br>www.bats.org.uk email: enquiries@bats.org.uk |
| 7. 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.<br><br>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.<br><br>If exclusion of nesting / roosting swallows is required before demolition works are carried out, the closure of the buildings **must take place during before the end of winter.**<br><br>For further advice: www.rspb.org.uk |

## ANNEX 1 - 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 consent[1].

*"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 lawfully[1].

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)

**Other references:**

Bats, development and planning in England, (Specialist support series) - Bat Conservation Trust, 5th Floor, Quadrant House, 250 Kennington Lane, London, SE11 5RD, 0845 1300 228

Defra Circular 01/2005 (to accompany PPS 9) - Department for Environment, Food and Rural Affairs. www.defra.gov.uk

Natural England - Cheshire, Cumbria, Greater Manchester, Lancashire and Merseyside offices are located at:
Crewe: Natural England, Electra Way, Crewe business park, Crewe, Cheshire, CW1 6GJ 0300 060 2922
Kendal: Natural England, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL 0300 060 2122
Manchester: Natural England, 3rd Floor, Bridgewater House, Whitworth Street, Manchester, M1 6LT 0300 060 1062

**Sheffield: Natural England, 1 East Parade, City Centre, S1 2ET, Sheffield.**

## ANNEX 2

### References


Altringham, JD., (2011) Bats, From Evolution to Conservation. OUP.

BCT, (2012) Bat Surveys, Good practice Guidelines – 2nd edition

BCT, (2016) Bat Surveys for Professional Ecologists, Good Practice Guidelines – 3rd edition

BSI, (2013) British Standard for Biodiversity (BS42020) Biodiversity in planning and development.

CIEEM, (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland – Second Edition.

Dietz, C., Helversen, O., Nill, D.(2009) Bats of Britain, Europe and Northwest Africa. A&C Black.

Gunnell K, Murphy B, Williams C, (2013) Designing for Biodiversity, RIBA Publishing / BCT – 2nd Edition.

JNCC, (2010), Handbook for Phase 1 Habitat Survey – a Technique for Environmental Survey.

Mitchell, AJ and McLeish, AP., (2004), JNCC Bat Workers Manual 3rd Edition.

Mitchell, AJ., (2004), English Nature Bat Mitigation Guidelines, version January 2004

Russ, J., (2012), British Bat Calls, A Guide to Species Identification. Pelagic Publishing