Bat & Bird Survey & Assessment

At 'Brambles', Vicarage Lane, Wilpshire, Blackburn, Lancashire, BB1 9HY

1st June 2016

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A SUMMARY

This report presents the results of a full daylight and nocturnal bat and breeding bird survey (including consideration of Barn owl), which has recently been undertaken at a semi-detached residential property called 'Brambles', located at Wilpshire.

The survey work has been commissioned in connection with a planning application that was recently submitted to Ribble Valley Borough Council, proposing extension and modification to the property. The application was deemed invalid due to a lack of a formal ecology survey (i.e. a bat and breeding bird survey), thus such work was immediately commissioned.

The survey has been conducted at an optimal time of year, and by suitably experienced and licensed surveyors. Its outcome has demonstrated *there is no habitat for Barn owl, no evidence of nesting birds and no evidence of roosting bats at the property of interest, though one Common pipistrelle bat has emerged from under a roof slate on the adjoining semi-detached property*.

The combination of daylight and nocturnal survey has demonstrated there is no evidence of a bat maternity roost and there is negligible potential value for hibernating bats. However, the presence of occasional lifting slates and access gaps at the eaves mean that there is low potential for future use by small nesting birds and moderate potential for future use by lone or low numbers of small crevice-roosting bats, in association with both pitches of the main roof, plus the southern wall-top.

In summary, although there is no requirement for a bat mitigation licence, precautionary actions will be required when undertaking work that affects the existing roof, to ensure that all risk is avoided risk in relation to bats and small breeding birds. *Section E of this report specifies recommended actions and it is respectfully suggested that the Local Planning Authority (LPA) should enforce implementation of the actions by means of one or more suitably worded planning conditions*.

B INTRODUCTION

B.1 Background to proposed activity/ development/ works on site

The building that forms the subject of this survey and report is a semi-detached dwelling, situated in a rural location on the northern edge of the village of Wilpshire. This is within the local government borough of Ribble Valley.

A planning application has recently been submitted to the borough council, proposing the construction of a two-storey extension on the western side of the property, plus the addition of dormer windows and skylights to the existing roof. Since this will entail invasive alterations to the building's walls and roofs, the planning authority has identified that an assessment for bats and birds must be undertaken prior to the application being processed and determined.

Throughout the rest of this report, the property is interchangeably termed **'the Site'** or **'the Application Site'**. The methodologies, results and conclusions of this necessary survey work are accounted for within this report.

C METHODOLOGIES, PLUS INFORMATION FROM EXISTING RECORDS

C.1 Objectives of the survey & assessment

The objectives of the survey and assessment have been as follows:-

- Determine the *potential value* of features in relation to roosting and/or hibernating bats and identify any field signs indicative of the current or former presence of bats, by means of *daylight survey*.
- Conclusively determine the *presence or absence of bats* (at the time of survey) by conducting a nocturnal emergence survey, under suitable weather conditions, at an optimal time of year for detection, and using suitable ultrasound detectors and skilled surveyors.
- Identify whether there is potential for use by nesting birds (including Barn owl) and record any evidence of old nests and/or active nests.
- Identify any concerns or constraints in relation to the survey results and how they relate to the planning proposal, providing guidance on mitigation and compensation measures where necessary.

C.2 Pre-existing information on species at the survey site / in the locality.

Desk study resources:

The resources used for the desk study were as follows:

- Bing Maps (www.bing.com/maps) and Google Earth 5 (http://earth.google.co.uk) for aerial photographs, including historic photographs in the case of Google Earth.
- Bing Maps (www.bing.com/maps) for an Ordnance Survey map extract.
- Multi-Agency Geographic Information for the Countryside (MAGIC) collaborative database website (http://magic.defra.gov.uk/MagicMap.aspx), for information on statutory designations.
- Bat roost records held on file by Ms Lorna Bousfield (Natural England licensed bat worker, licensed roost visitor and Bat Conservation Trust grounded bat carer), dating from the past 8 years, all of which have been submitted to the Lancashire Environmental Records Network.

Desk study results:

The Application Site is centred at grid reference **SD 68698 33196** and desk study results reveal that the following bat species have been recorded actively foraging within 5.0km range, within the last 8 years:

- Brown long-eared *(Plecotus auritus)*
- Brandt's *(Myotis brandtii)*
- Common pipistrelle*(Pipistrellus pipistrellus)*
- Daubenton's *(Myotis daubentonii)*
- Natterer's *(Myotis nattereri)*
- Noctule *(Nyctalus noctula)*
- Soprano pipistrelle *(Pipistrellus pygmaeus)*
- Whiskered *(Myotis mystacinus)*

Barn owl is also known to exist within the 5.0km environs around the Site, whilst a range of other bird species will be present in the area and will utilise buildings for nesting, including Swallow (*Hirundo rustica*), House Martin (*Delichon urbica*), Blackbird (*Turdus merula*), Wren (*Troglodytes troglodytes*), House Sparrow (*Passer domesticus*) and Starling (*Sturnus vulgaris*).

All such species have been given consideration during the survey and assessment work.

C.3 Location of survey area

An Ordnance Survey map (© Bing maps) and an aerial photograph (© Google earth) have been labelled to create **Fig. C.3.1** (see below) and **Fig. C.3.2** (see next page), showing the location of the Application Site in the context of its surroundings.

As shown, the Site is located in a rural area, surrounded by a combination of pasture and arable fields, hedgerows and broadleaf trees. There is also a tree-lined active railway line directly to the east and although there is no river or other large linear water feature, there are many small channels and field ponds in the wider surrounding area. The habitat therefore presents good potential value for a range of bat and bird species.

Fig. C.3.1: Location of the Application Site on an Ordnance Survey Map

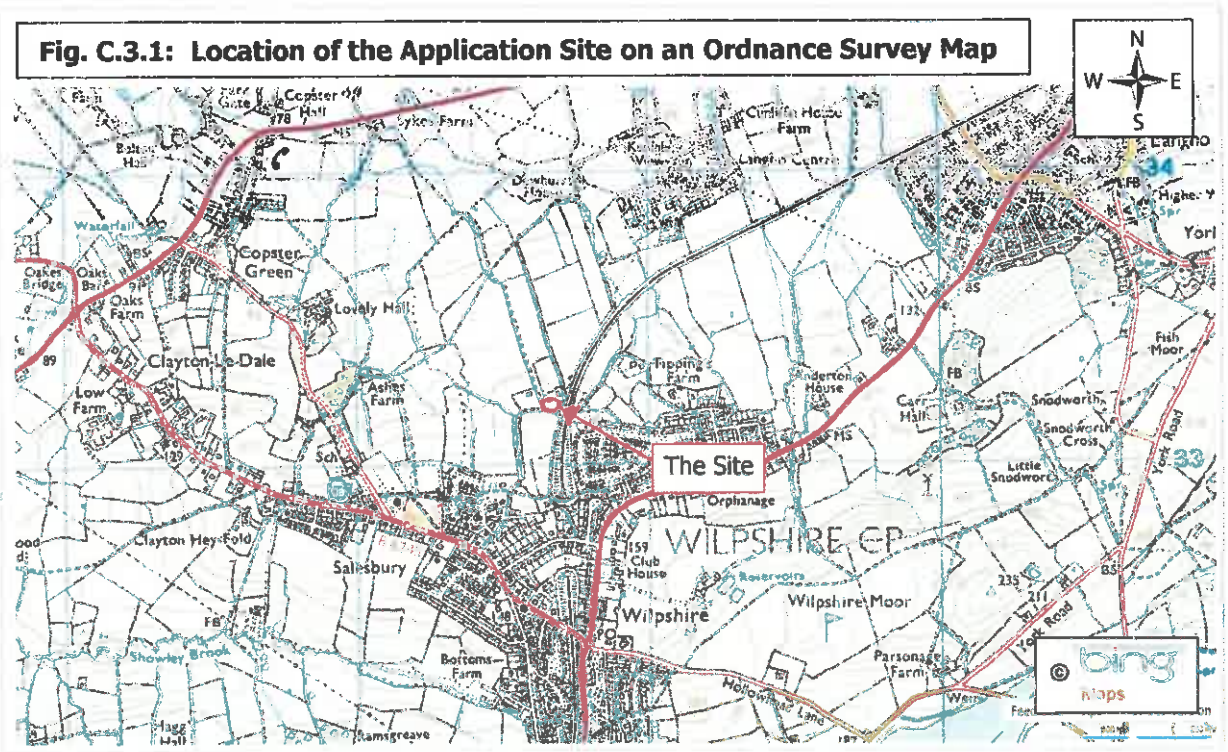

Fig. C.3.2: Location of the Application Site on an aerial photograph

C.4 Field survey methodologies

C.4.1 Personnel:

The daylight and nocturnal survey work has all been led by **Ms Lorna Bousfield BSc (Hons) MCIEEM**, who is an experienced bat worker and an active member of local bat groups. Ms Bousfield holds survey class licence **WML CL18 (Bat Survey - Level 2)**, and specifically licence number **2015-13362-CLS**.

Dr David Bennett has assisted throughout the survey. Dr Bennett is also a licensed and experienced bat worker and an active member of local bat groups. He holds survey class licence **WML CL18 (Bat Survey - Level 2)**, and specifically licence number **2015-13408-CLS-CLS**.

C.4.2 Dates & weather conditions:

The daylight and nocturnal survey work was all undertaken on **31st May 2016**, at which time the weather was clear and dry, with a gentle breeze (Beaufort 3) and with an air temperature of 13.6° Celsius at the start and 13.2° Celsius at the end. The official time of sunset was 21:29hrs.

C.4.3 Methods:

By daylight, an external and internal examination was made, using binoculars and a high-powered torch where appropriate. All features were inspected for potential access points and suitable habitat structures for bats, Barn owl and nesting birds.

In relation to bats, any features of interest were additionally searched for current and/or historic evidence of bat occupation, including droppings, remains of invertebrate prey, grease marks from repeated contact with surfaces, and/or occurrences of bats themselves.

In relation to Barn owl, if any suitable features were found, these were to be checked for faecal splashing, regurgitated pellets, feathers and/or owls themselves.

In relation to breeding birds, all evidence of nests was to be noted, with identification of the species and its access/egress locations where possible.

For the nocturnal survey, the two surveyors were positioned to maximise visibility of potential roost egress locations, both using heterodyne bat detectors, plus one using a frequency division detector and one a full spectrum detector (to record sonograms), coupled with attentive visual observation of the building and nearby air-space. The survey started 20 minutes before official sunset time and continued until 1hr 10 minutes after official sunset, by which time all bat species would have emerged and it was also too dark to visually monitor the building.

C.4.4 Equipment:

The equipment used for the survey is listed below:

- Paperwork
- LED Lenser P14 torches x2
- Batbox duets x2 (heterodyne detectors)
- Petterson M500 (full spectrum detector)
- Thermometers x2
- Digital camera x1
- Short-focus binoculars x1
- EM3 x1 (frequency division detector)
- Head-torches x2
- Binatone 2-way radios x2

D SURVEY RESULTS

D.1 Daylight appraisal for bats & birds

Below, **Fig. D.1** illustrates the layout of the Application Site, demonstrating that the semi-detached dwelling comprises the western side of the building. Accordingly, the new two-storey extension will be added on land to the west, tying-in to the western gable end of the existing structure.

Fig. D1: Labelled layout of 'Brambles', Vicarage Lane

The property is two-storey, but with the upstairs room situated within the roof space, facilitated by the presence of a vaulted ceiling. There are small loft voids along the southern and northern elevations, where the roof height is too low for inclusion within the living space. The combination of internal and external inspection reveals that the inner walls comprise a mixture of stonework and breeze-block, whilst the exterior finish comprises stone (see **Photo. 1**, next page).

Photo. 1

Internally the small southern loft void has been boarded out; effectively with a vaulted ceiling that conceals all of the wall and roof structure. The other displays breeze-block walls, fibre-glass insulation to the floor and bitumen under-felt underneath the roof slates (see **Photo. 2**). *There is no evidence of access or use by bats or birds and no evidence of potential ingress points*.

Photo. 2

To the exterior, the walls are finished with stone and the mortar is all in good condition, with no habitat value for bats or birds. Along the northern elevation and the western gable end the wall-tops appear to be sealed, whereas along the southern elevation there is large gap to the rear of the fascia board and there is evidence of metal mesh along approx. ¾ of the length of the gap (see **Photo's 3 & 4**, next page). The mesh is discontinuous, with gaps at western and eastern ends, plus local small gaps to the back (flanking the wall), with these being of adequate size to allow bat entry.

At the time of survey there was one small bat dropping affixed to the property's south-facing window pane and there were three dry and relatively old bat droppings on the ground alongside the wall of the southern elevation. Such droppings gave evidence of active bats flying in the immediate vicinity of the dwelling, but they were not clustered and were not demonstrative of a roost site. All were indicative of a pipistrelle species. *By daylight it is assessed that there is low potential for small nesting birds and moderate potential for roosting bats along the southern eaves, but that there is no evidence of a bat roost site or bird nesting site*.

Photo. 3

Photo. 4

The roof's exterior is finished with slates and ridge tiles. There are no visible gaps under the southern side of the ridge tiles, but there are two under the northern side. There are occasional uneven slates, particularly on the north-facing pitch. There is also lifting lead/metal around two small chimney flues that protrude through the northern pitch, whereas the base around the main chimney appears tight fitting. The gaps beneath the slates are judged to be too small for nesting birds, but they *afford moderate potential for opportunistic use by crevice-roosting bats.*

In summary, there is no internal access or value for Barn owl, low potential for future use by nesting birds and moderate potential value for lone or low numbers of crevice-roosting bats. This indicates that a nocturnal bat survey is required. However, there is no evidence of a bat maternity roost and there is negligible potential value for hibernating bats.

D.2 Nocturnal emergence bat survey

The weather conditions were good throughout the survey and there were no survey constraints. A summary of the results is presented in tabulated format on the following page.

Nocturnal emergence survey: Date: 31st May 2016	
Official sunset time: **21:29hr** Survey start time: **21:10hr** Survey end time: **22:40hr**, by which time it was too dark to visually monitor the building	
Surveyor locations  	
21:37hrs	First bat detected, comprising a Common pipistrelle flying into air-space from the south, not emerging from the property.
21:40hrs	Emergence of 1x Common pipistrelle from under a slate on the south-facing roof of the adjoining semi-detached property, from under a slate flanking the west side of the westernmost skylight.
21:55hrs until 22:15hrs	Very regular occurrence of 1 – 2x Common pipistrelle, foraging and passing around the house and wider gardens, including feeding and chasing behaviour, with two passes very close to the southern elevation of the property.
22.03hrs and 22.19hrs	Brief detection of 1x Soprano pipistrelle, foraging and passing.
22:15hrs until survey end	Bat activity levels diminishing. Only Common pipistrelles detected.
Summary	No bats emerged from the Application Site, but one came from a roost under a slate very close to the Site, on the adjoining semi-detached property

E LEGISLATION, ASSESSMENT & RECOMMENDATIONS

E.1 Bats

All UK bat species are provided full legal protection under Schedule 5 (section 9) of the *Wildlife and Countryside Act 1981 (as amended)* and under *The Conservation of Habitats and Species Regulations 2010*, making them European Protected Species. In combination this legislation make it illegal to intentionally kill, injure, harm or disturb bats and illegal to damage, disturb or obstruct access to bat roosts.

Although there is currently no evidence of roosting bats at the Application Site, the presence of active bats in the surrounding air-space, habitat value in association with the roof and walls, and also a roosting bat on the roof of the adjoining semi-detached property indicates that there remains potential for future occurrence of lone or low numbers of crevice-roosting bats. This means that without precautions there is a low risk that the proposed work could have a negative impact. It is therefore important that ***precautionary protection measures for bats are implemented***.

The necessary bat protection measures when undertaking work on 'Brambles' are specified below:

- There will be disturbance to the existing roof, to install dormer windows and skylights. Bats could feasibly roost under any slightly raised slates, under ridge tiles (where there is an access gap) and/or on wall-tops at the southern elevation. Before workers go on the roof, all are to be briefed and all are to be shown the following photographs of Common pipistrelle bat (the species most likely to be encountered) and an accumulation of bat droppings.

Fully grown Common pipistrelle bat

Pipistrelle bat droppings, which look like mouse droppings, but crumble to dust when squashed between the fingers (comprising tiny, glistening bits of insect wings etc.)

- All removal of ridge tiles, slates and/or the southern fascia board must then be carefully undertaken by hand, with the features being lifted instead of dragged so that no bats are crushed during the process. Gaps underneath or behind the features are to be checked for the presence of bats, and/or any accumulations of bat droppings.
- If a bat (or an accumulation of bat droppings) is discovered, work is to temporarily cease whilst the bat is captured and an experienced bat ecologist is contacted for guidance and assistance. This can be the consultant who undertook the initial survey (Ribble Ecology: 01772 879545), any other licensed bat worker, or the Bat Conservation Trust (BCT) helpline (0345 1300 228).
- If it is necessary to capture a bat to remove it to safety, this should be undertaken with gloves or a light cloth, capturing the bat and containing it whilst the advice of the bat worker is sought. Thereafter, following the on-site advice of the bat worker will ensure there is no breach of the legislative protection afforded to roosting bats.

E.2 Breeding birds

Wild birds, their nests and their eggs are protected under Part 1 of the *Wildlife and Countryside Act 1981*, which makes it illegal to kill or injure a bird and to destroy its eggs or its nest whilst it is in use or being built. Barn owls are afforded additional protection, which makes disturbance illegal whilst the birds are breeding.

There is no evidence of Barn owl and no habitat value for this species, but there is low potential for future occurrence of nesting birds. If the invasive work is going to take place between March and August (bird breeding season), minor pre-works checks are advisable, on a precautionary basis:

- In the days immediately prior to commencing work, the roof is to be watched, to check for opportunistic colonisation by breeding birds.
- If any occurrences of breeding birds are detected, the nest must be left undisturbed until the chicks have fledged, at which point the work can take place. As a rough indication, the incubation of eggs and rearing of chicks until they depart the nest can take 2 – 4 weeks, depending on the bird species and what stage the process has reached at the time that the nest is discovered.

- Once it is demonstrated that no birds are actively nesting, invasive work can take place.

F CONCLUSION

In conclusion, there is no requirement for a European Protected Species (EPS) Mitigation Licence at the Application Site, but precautionary protection measures for bats will be required, as specified in Section E of this report. The measures are practical to achieve and appropriate in scale.

Additionally, the proposed conversion holds no implications or concerns in relation to Barn owl and only low potential for other breeding birds, so only minor precautions are applicable.

Completion of this survey work, submission of this report to the Local Planning Authority (LPA), and ultimately implementation of the recommendations in Section E, will demonstrate due compliance with the Conservation of Habitats and Species Regulations 2010. This allows the LPA to reach a decision in relation to the application.

However, if permission is granted, it is respectfully suggested that the LPA should attach one or more suitably worded planning conditions to the Decision Notice so as to enforce implementation of the recommended precautionary protection measures.

G REFERENCES

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