Preliminary Bat Roost Assessment

Site: Ribble Dene, Sawley, BB7 4LF

22nd April 2021

CLIENT: Mr & Mrs J Hartley

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Date checked & released:

25th April 2021

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Summary

This report presents the results of a daylight bat roosting potential assessment undertaken in April 2021, at Ribble Dene in Sawley. The work has been commissioned in connection with a proposed planning application.

The scope of the survey has primarily considered roosting and hibernating bats, breeding birds and Barn owls. Additionally, the associated land has been checked for evidence of notable ecological considerations such as rare or invasive plant species.

In summary, the survey outcome shows no evidence of historic use by bats, and has identified that there is little potential habitat value on site for any bat species. However, a precautionary approach should always be used when demolishing/converting buildings close to rivers and woodland, due to the transient nature of bats. In addition, there is evidence of nesting birds, and therefore precautions to ensure no breeding birds are harmed will be required. The site is not suitable for use by barn owls, and no evidence was found on the site. There was no evidence of non-native invasive species growing on the adjacent land at the time of the survey.

Recommendations - This is work you will need to commission to obtain planning permission or comply with legislation for other consent.

Recommendations
No further surveys required. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice. Any building/tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and scrub to be removed should be undertaken by a suitably qualified ecologist, immediately prior to clearance. All active nests will need to be retained until the young have fledged.

For full justification of these recommendations, please go straight to section 4.0 Conclusions, Impacts and Recommendations. Otherwise, the full report starts below.

Contents

1.0 Introduction and Context

1.1 Background

The building at Ribble Dene, Sawley is a residential bungalow with a dormer first floor.

Hereafter within this report, the land encompassed by the red-line boundary of the planning application is termed '**the Site**' or '**the Application Site'**.

1.2 Site Context

A bat survey has been deemed necessary due to the nature of the proposed works and location of the site. In addition, the presence or absence of Barn owl and nesting birds has been taken into consideration, along with other local wildlife.

1.3 Scope of the report

This report provides a description of all features suitable for roosting bats, and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with current wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. Due to the transient nature of bats, this report is not able to definitively ascertain the absence of bats, rather the absence of *evidence* of use by bats either prior to or at the time of the survey.

To achieve this, the following steps have been taken:

- A desk study has been carried out, including information from local wildlife groups & the MAGiC
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals
- A nocturnal bat activity survey has been carried out to determine the presence of roosting bats.
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing if appropriate

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2 (where available), desk study results are provided in the Appendix 3 and a summary of relevant legislation can be found in Appendix 4.

The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

2.0 Methodology

2.1 Desk Study methodology

Prior to attending the Site, desk and internet based resources were used to obtain background information about known bat habitat and occurrences in an approx. 2km surrounding radius.

The resources used for the desk study were as follows:

- Google Earth Pro (http://earth.google.co.uk) for aerial photographs
- Multi-Agency Geographic Information for the Countryside (MAGIC) collaborative database website (http://magic.defra.gov.uk/MagicMap.aspx), for information on statutory designations.
- Local bat care group for local knowledge on known roosts.

2.2 Site Survey methodology

All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable and for signs of bat activity.

<u>For any surveyed buildings:</u>

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope & torch. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

2.3 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Table 1 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed

Table 1: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g., mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g., broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g., river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

2.5 Limitations – evaluation of the methodology

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study.

The survey was carried out outside the main activity season for bats (May to September being deemed the main activity season). Therefore, the conclusions drawn are based on the range of evidence available.

3.0 Results and Evaluation

3.1 Desk Study Results

The site is located at National Grid Reference SD 77854 46758.

3.2 Designated sites

The site is within the Forest of Bowland area of Outstanding Natural Beauty (AONB) which will need to be consulted on any planning applications.

3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database (App. 3) and OS maps has been undertaken. Collated together, the site's local habitat relevant to bat populations is described below:

The site is located within the priority habitats floodplain grazing marsh and within 100m of ancient deciduous woodland. the river Ribble runs just over 100m to the west with other residential buildings in close proximity. These habitats will be an important local food and refuge resource for bats. The landscape beyond is dominated by large fields of pasture and grass crops, with hedges, woodland and tree lines around the area, which could be used for foraging and commuting by bats.

Figure 1: Aerial photo of site, showing surrounding landscape structure

3.4 Historical records

The East Lancashire Bat Care group and MAGIC records of a 2km site radius show that there are records of common crevice dwelling and void dwelling bat species present within the study area, including common pipistrelle *Pipistrellus pipistrellus,* soprano pipistrelle *Pipistrellus pygmaeus,* three *Myotis* species, noctule bat *Nyctalus noctula,* and brown long eared bat *Plecotus auritus.*

A search of the magic database shows one granted European Protected Species Mitigation Licences (EPSMLs) to destroy a breeding place for alcathoe (*Myotis alcathoe*), Brandts bat (*Myotis brandtii*), whiskered bat (*Myotis mystacinus*) brown long eared bat, and both common and soprano pipistrelle bats within a 2km radius of the survey site.

These results indicate that there are multiple species of bat in the vicinity of the Site, indicating it is an important area of foraging and breeding habitat for the bat population in this locality.

3.5 Field Survey Results

The survey was undertaken on 16/04/2021 by Carol Edmondson (Natural England bat licence number: **2015-12195** CLS-CLS), an MSc qualified ecologist with 9 years' experience in specific bat habitat surveying.
There is one survey building on the site which is illustrated in the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 2.

Table 2: Environmental variables during the survey

Date: 16/04/2021	
Temperature	10°C
Cloud Cover	15%
Wind	4 km/h
Rain	-

3.6 Site Feature descriptions and photos

Building Description The building is a semidetached single storey dwelling with a dorma loft conversion to the front (west) elevation, and a single storey porch to the east elevation.	 Photo 1: West elevation of house, showing flat-roofed dorma.
The walls are traditional brick built cavity with rough cast render and painted white. The windows and doors are uPVC and in a good state of repair, being close fitting and no visible gaps.	 Photo 2: North elevation, showing overhanging bay window and slate roof.

The main roof is dual pitched with the ridge running north – south, constructed of timber rafters and purlins, clad with blue slate. The flat dorma roof to the west is bitumen covered. All roof areas are in a reasonable state of repair, with no visible gaps in tiles or mortar.	 Photo 3: East and north elevations, showing the blue slate dual pitched roof.
The soffits and eaves are all in a good state of repair and are close fitting to the building, with no visible gaps that would allow bats or birds ingress.	 Photo 4: Example of close fitting soffits

Interior. Internally, there is an open loft area in the main roof void, and over the western elevation. The space is dry, with no visible gaps to the exterior allowing ingress of bats or birds. The roofing materials are all in a good state of repair.	 Photo 5: Internal view of roof structure.
The roof slates are unlined and both loft spaces are heavily coated in cobwebs.	 Photo 6: Cobwebs hanging from the un-lined roof slates.

The insulation above the ground floor is covered in a thick dust coating from the mortar to the underside of the slates. There was some evidence of small mammal activity – presence of droppings and chewing of pipe insulation.	 Photo 7: Insulation in the loft space covered in light grey dust from the mortar.

Evidence of bats

There was no evidence of bats historically or currently using this building as roosting habitat.

Breeding birds and other incidental observations

There was no evidence of birds nesting within the building, however there is a historic house martin nest under the eaves of the western elevation. In addition, the woodland and scrub adjacent to the property provide suitable nesting habitat for birds.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Bats and their roosts are protected under the Wildlife and Countryside Act and Conservation Regulations; see Appendix 3 for a summary of legislation protecting bats in the UK. Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommends additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European Protected Species Mitigation Licence (EPSML) application with Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least on the surveys should be a dawn re-entry survey (Collins, J. 2016).

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommends additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence/likely-absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016). The survey effort recommended at this stage is iterative and if bats are recorded emerging from the buildings, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice.

Appropriate justification for this assessment is provided in Section 3 *Survey results* of this report.

4.2 Evaluation

Taking the desk-based assessment and site survey results into account, the following value for roosting bats has been placed on The Site.

Table 3: Evaluation Summary

Survey assessment conclusions (with justification)	**Foreseen impacts**	**Recommendations**	**Enhancements** The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99
There is suitable bat foraging habitat in the proximity of this building and bat roosts present in the area. However the nature and condition of this building shows that it has a **negligible** likelihood of supporting roosting bats.	Bats are unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats as a result of the proposed works	No further surveys. However, as bats are a transient mammal, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted for further advice.	The installation of a minimum of 1 bat box on the buildings when finished will provide additional roosting habitat for bats e.g. • Greenwoods habibat Bat Box • 1FF Schwegler Bat Box • Kent Bat Box. Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance.

Nesting Birds: Nesting habitat present on site.	Active nests could be destroyed during vegetation removal. Any works which affect The Site could have an impact on nesting birds.	Any tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and scrub to be removed should be undertaken by a suitably qualified ecologist, **immediately prior** to clearance. All active nests will need to be retained until the young have fledged.	Install a minimum of one bird box on the building on site e.g. Schwegler 1SP Sparrow Terrace Vivara Pro WoodStone® House Martin Nest Or Greenwoods Ecohabitat boxes: https://www.greenwoodsecohabitats.co.uk/ Nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. House martin boxes should be placed under the eaves with clear entrance/exit paths.

5.0 Bibliography

- Bat Conservation Trust: http://www.bats.org.uk/
- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth Pro (2020) accessed on 14/04/2021.
- Magic database (2019) http://www.magic.gov.uk/MagicMap.aspx accessed on 14/04/2021.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

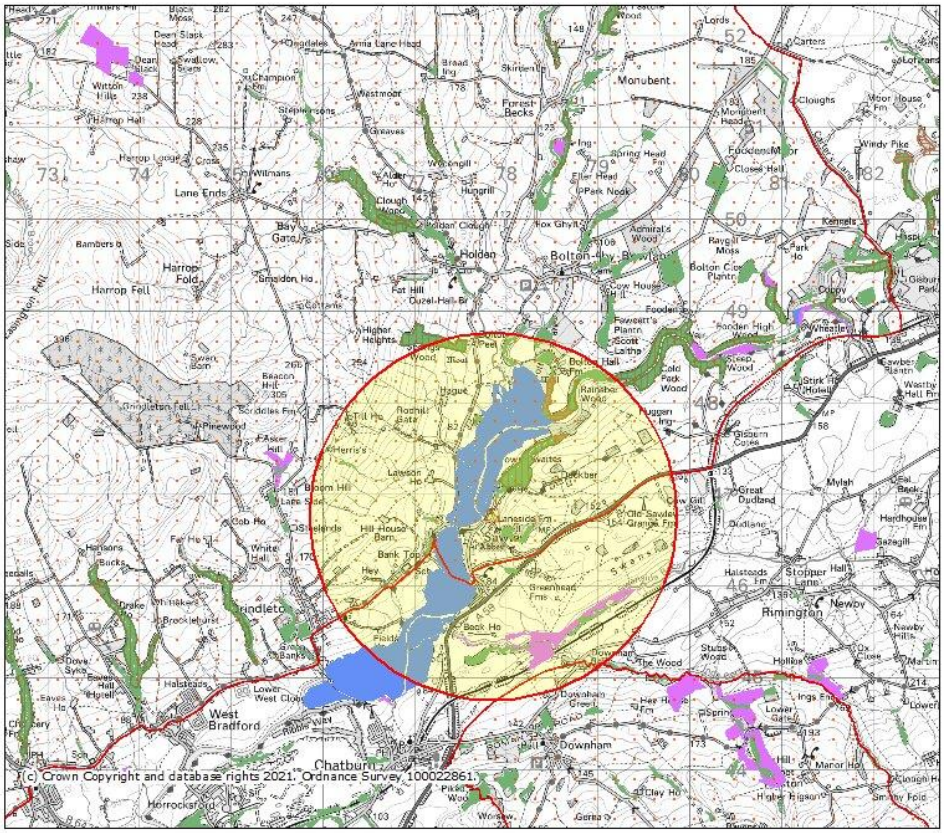
Appendix 1: Survey Plan

Appendix 2: Proposed Site Plan

Not supplied

Appendix 3: Desk Study Information

MAGIC **Ribble Dene Sawley Priority Habitats**



Legend

- Areas of Outstanding Natural Beauty (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland
- Priority Habitat Inventory - Deciduous Woodland (England)

Projection = OSGB36
xmin = 367200
ymin = 443100
xmax = 388000
ymax = 452600

0 1 2 km

Map produced by MAGIC on 23 April, 2021.
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Appendix 4: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young

  (ii) to hibernate or migrate

  b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant statutory authority (e.g. Natural England) will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.