Bat and Water Vole Survey

BE-508.1
Punch Bowl Inn

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TABLES AND FIGURES

1. Introduction

Background

1.1. Bagshaw Ecology Ltd have been requested by Bramley-Pate and Partners, on behalf of Andrew Donelan, to carry out a Bat and Water Vole Survey of the land at the former Punch Bowl Inn, Longridge Road, Hurst Green, Clitheroe BB7 9QP, hereafter referred to as 'the site'.

1.2. The purpose of the report is to identify the habitat types on the site, along with the presence or absence of any protected or notable species. The ecological impact of any proposed development is assessed, and mitigation, management and aftercare proposals are suggested when appropriate.

Site Details

1.3. The site is located at grid reference SD 67396 37863, and is accessed off the south of Longridge Road (B6243), approximately 500m west of Hurst Green.

1.4. The site consists of the building of the former Punch Bowl Inn, and an area of grassland. The site is bordered by Longridge Road to the north, by agricultural land to the east and south, and by Bailey Brook to the west.

Figure 1. Aerial imagery of site and surrounding area (Google Earth Pro, 2017)

Development Proposals

1.5. The development proposals are to demolish the existing building on the site, and to construct 15 holiday cottages, along with their associated parking spaces and amenity areas.

2. Legislation and Policy

2.1. Water voles and all species of British bat are protected under the Wildlife and Countryside Act 1981, extended by the Rights of Way Act (2000), making it an offence to deliberately or recklessly:

- Injure, kill or capture a bat or water vole.
- Intentionally or recklessly destroy a bat roost or place of shelter for water voles (regardless of whether the species concerned is present or not)
- Possess or control any live or dead specimen of a bat or water vole.
- Destroy or obstruct access to any structure or place used for protection by a bat or water vole.
- Sell, barter or exchange a bat or water vole.

2.2. All bat species are afforded additional protection under Schedule II of the Conservation of Habitats and Species Regulations 2010. The Conservation of Habitats and Species Regulations makes it an offence to kill, capture or damage a bat, or to destroy a breeding site or resting place of a bat. Any development which compromises the protection afforded to bats under the regulations will require a European Protected Species License from Natural England.

2.3. All birds are protected under the Wildlife and Countryside Act 1981 (as amended) when nesting. Some bird species, including barn owl *Tyto alba* are afforded additional protection under Schedule 1 of the Act.

Table 2 Activity Survey Details

Date	Surveyors	Sunset/sunrise time	Start time	Finish time	Weather conditions
16/05/2017	David Watts, Kath Smyki, Alexandra Kaley	21:06	20:51	22:36	Start temperature 15°C, finish temperature 11°C. Clear and dry. Cloud cover 20%. Wind Beaufort 2.
01/06/2017	David Watts, Amy Reddick, Alex Kaley	04:46	03:11	05:01	Start temperature 15C°, finish temperature 13°C. Clear and dry. Cloud cover 5%. Wind Beaufort 1.
07/06/2017	David Watts, Amy Reddick, Kath Smyki	21:35	21:20	23:05	Start temperature 13°, finish temperature 13°C. Overcast and dry. Cloud cover 100%. Wind Beaufort 1.

Birds

3.5. During the bat survey, the building was inspected for any signs of nesting birds, in particular barn owl.

Water Voles

3.6. The water vole surveys were carried out in accordance with methods prescribed by Strachan *et al* (2001) and Dean *et al* (2016). Surveys were undertaken on 4th May 2017 and 7th June 2017.

3.7. Transects of the stream were undertaken by wading through the channel whilst inspecting the banks on both sides for signs indicative of water voles. The stream running through the site, and 500m to the south of the site was inspected. The stream to the north of the site was culverted, preventing a full inspection.

4.9. A plan showing bat activity during surveys, and detailed survey sheets, can be viewed in the appendices.

Birds

4.10. During the site surveys, blue tit *Cyanistes caeruleus* were observed nesting in an ashtray attached to the wall on the north aspect.

4.11. Other bird species observed on the site include heron *Ardea cinerea*, goldfinch *Carduelis carduelis*, carrion crow *Corvus corone*, rook *C.frugilegus*, song thrush *Turdus philomelos*, pied wagtail *Motacilla alba* and wren *Troglodytes troglodytes*.

Water Voles

4.12. The watercourse was fast moving and approximately 10mm deep, with occasional pockets up to 30mm deep. No signs indicative of water voles were observed during either survey, and it is considered that the stream provides suboptimal habitat for water voles.

6. References

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Dean, M., Gow, D., Andrews, R. (2001). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Series)* (eds. Matthews, F., Chanin, P.). The Mammal Society, London

Google Earth Pro (2017). *Google Earth* [online]. Available at: >www.earth.google.com< [accessed 9th June 2017]

Leatham, R. (2015). *Extended Phase 1 Habitat Survey and protected Species Survey/Assessment – Land at Punch Bowl Inn, Longridge Road, Hurst Green, Clitheroe, BB7 9QP, Lancashire* – [technical report]. Penning Ecological, Bolton

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature

Mitchell-Jones, A.J., McLeish, A.P. (2004). *Bat Workers Manual*. Joint Nature Conservation Committee

Strachan, R., Moorhouse, T., Gelling, M. (2011). *Water Vole Conservation Handbook. Third Edition.* Wildlife Conservation Research Unit, Oxford

Wildlife and Countryside Act 1981 Ch. 69

Plate 3: North aspect (arrows show approximate emergence/re-entry points)

Plate 4: East aspect

Plate 7: Mezzanine to northeast

Plate 8: Roof void, west aspect

Plate 11: Stream, leading from south of site

Plate 12: Culvert to north of site

Appendix 2: Survey Sheets

Date:	16/05/2017	**Surveyor:**	Kath Smyki (A)
Start time:	20:51	**Finish time:**	22:36

Number on plan	**Time**	**Species**	**Comments**
1	21:31	*Pipistrellus pipistrellus*	Emerged from near ridge tiles on centre roof
2	21:36	*Pipistrellus pipistrellus*	Emerged from eastern roof tiles
3	21:46	*Pipistrellus pipistrellus*	Emerged from ridge tile on centre roof
4	21:53	*Pipistrellus pipistrellus*	Foraging
5	21:58	*Pipistrellus pipistrellus*	Commuting over building
-	22:01	*Myotis sp*	Pass
-	22:02	*Myotis sp*	Pass
-	22:04	*Pipistrellus pipistrellus*	Pass
4	22:07	*Pipistrellus pipistrellus*	Foraging
4	22:10	*Pipistrellus pipistrellus*	Foraging
4	22:15	*Pipistrellus pipistrellus*	Foraging
-	22:15	*Plectotus auritus*	Heard not seen

Date:	16/05/2017	**Surveyor:**	David Watts (B)
Start time:	20:51	**Finish time:**	22:36

Number on plan	**Time**	**Species**	**Comments**
6	21:42	*Pipistrellus pipistrellus*	Commuting east to west alongside hedgerow
3	21:46	*Pipistrellus pipistrellus*	Flew south to north over building
7	21:47 – 22:04	*Pipistrellus pipistrellus*	Foraging over field to north until 22:04
-	22:02	*Nyctalus noctula*	Heard, no visual

Date:	01/06/2017	Surveyor:	David Watts (B)
Start time:	3:11 am	Finish time:	5:01

Number on plan	Time	Species	Comments
7	3:37	*Pipistrellus pipistrellus*	Foraging adjacent to hedge
12	3:48 – 04:02	*Pipistrellus pipistrellus*	Swarming around south of building before entering gap under pub sign
10	4:00	*Pipistrellus pipistrellus*	Commuting over building north to south
13	4:00 – 4:07	*OPipistrellus pipistrellus*	Swarming around roof tiles, before flying to south
-	4:06	*Nyctalus noctula*	Heard, no visual
14	4:24	*Pipistrellus pipistrellus*	Flew from north, before entering central roof tiles
-	4:32	*Pipistrellus pipistrellus*	Heard, no visual

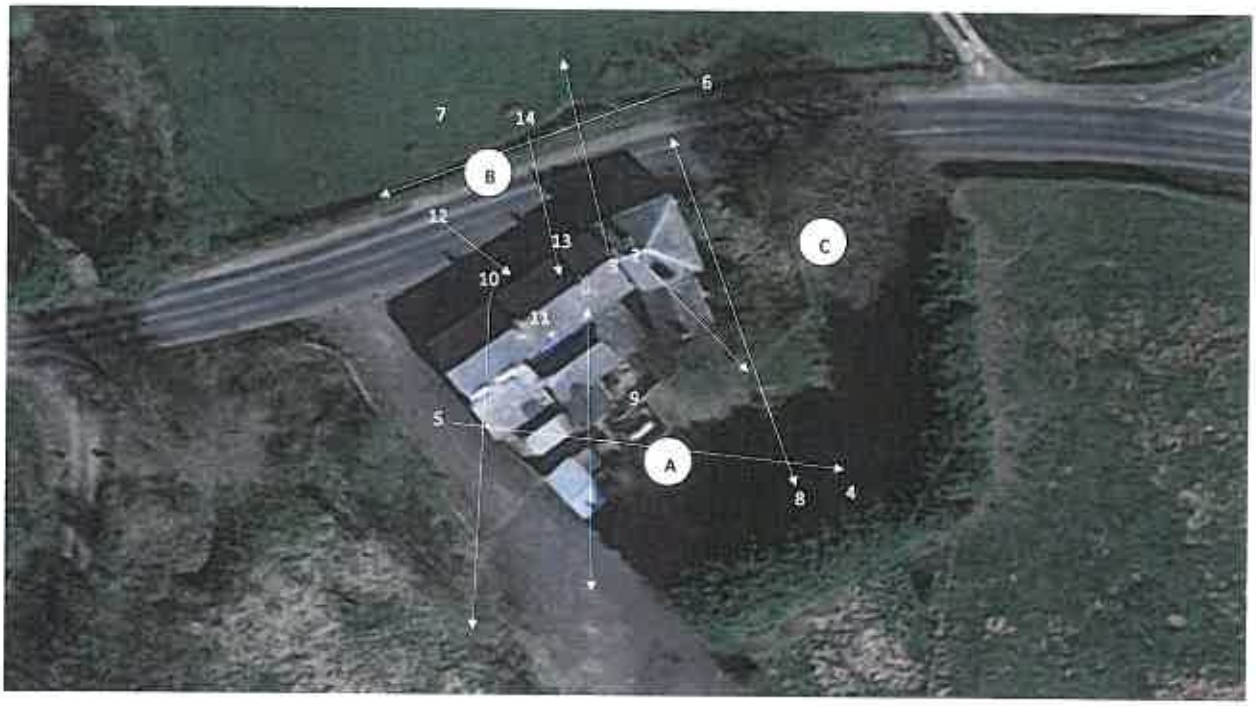
Date:	01/06/2017	Surveyor:	Alex Kaley (C)
Start time:	3:11 am	Finish time:	5:01

Number on plan	Time	Species	Comments
4	04:01-04:16	*Pipistrellus pipistrellus*	Foraging adjacent to trees
8	04:27	*Pipistrellus pipistrellus*	Commuting north to south
4	04:31 – 04:42	*Pipistrellus pipistrellus*	Foraging adjacent to trees
-	4:06	*Nyctalus noctula*	Heard, no visual

Date:	07/06/2017	Surveyor:	Amy Reddick (A)
Start time:	21:20	Finish time:	23:05

Number on plan	Time	Species	Comments
1	21:53	*Pipistrellus pipistrellus*	Emergence from eastern roof tiles
-	22:01	*Pipistrellus pipistrellus*	Heard not seen foraging
-	22:06	*Pipistrellus pipistrellus*	Pass
-	22:11	*Pipistrellus pipistrellus*	Pass

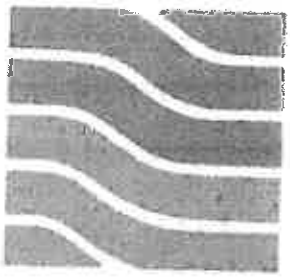
Appendix 3: Site Plan (Indicative plan only, not to scale)



Numbers and arrows show bat flight paths. Letters show location of surveyors (refer to Bat Survey Sheets).

23/3/18 Need update

PENNINE



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EXTENDED PHASE 1 HABITAT SURVEY & PROTECTED SPECIES SURVEY / ASSESSMENT

- Land at: Former Punch Bowl Inn, Longridge Road, Hurst Green, Clitheroe, BB7 9QP, Lancashire -

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1.4 SURVEY CONSTRAINTS:

The survey was conducted on November 19th 2015 this is a sub-optimal time for Extended Phase 1 Habitat Survey, however given the habitats present on site, this is not regarded as a significant constraint.

With the exception of the water vole survey there were no constraints to other protected species surveys / assessments and the site was fully accessible.

The eastern boundary is fenced and includes a line of Leyland cypress conifers at the northern end.

The southern boundary is fenced with a semi-mature ash tree and two mature pedunculate oak trees.

The sites western boundary is formed by a stream with several trees on the eastern (site side) banks, these include; four sycamore, a single pedunculate oak and a holly bush. The eastern banks have limited streamside vegetation along the bank bases including fern species, liverworts and streamside herbs. The majority of the banks are covered in a thin layer of spoil from adjacent soil stripping.

Remaining parts of the site are bare earth / earth mounds.

2.1.4 Target Notes:

Target Note 1: Stream corridor on western boundary:

The sites western boundary is formed by a stream with several trees on the eastern (site side) banks, these include; four sycamore, a single pedunculate oak and a holly bush. The eastern banks have limited streamside vegetation along the bank bases including; locally abundant liverwort species and ivy, frequent broad-buckler fern and locally frequent opposite-leaved golden saxifrage and bramble species. The majority of the banks are covered in a thin layer of spoil from adjacent soil stripping.

Target Note 2: Mature sycamore with dense ivy cover:

This stream side tree has a dense cover of ivy which offers potential for bat roosts, although no evidence was noted.

Target Note 3: Semi-mature ash tree with dense ivy cover:

This ash tree in the south east corner of the site has a dense cover of ivy which offers potential for bat roosts, although no evidence was noted.

Target Note 4: Former Public House buildings:

The complex of buildings associated with the former Punch Bowl Inn support various features associated mainly with the slate roofs that offer potential points for bat access. These are explained in more detail in the following section.

2.2.2 Bats:

During the survey an assessment of bat roost potential and foraging habitats was undertaken.

Method:

A daytime survey was conducted on 19th November 2015. The buildings on site were inspected externally only for potential places / points of internal access that may be of value to bats. The exterior elevations were investigated from ground floor level, with the aid of close focusing binoculars, for places that are frequently used by bats as roosts or as access into roost chambers. All elevations were visually accessible.

The daytime survey was conducted by Mr. R. Leatham, who is an experienced ecologist. The findings of the survey were discussed in detail with Mr. Stan Irwin (licensed bat surveyor) who has over thirty years of bat ecology experience and licensing. The results, conclusions, and recommendations have been assessed by Mr. Irwin and his assessment concurs with Mr. Leatham's.

During the survey the surrounding habitat was evaluated in relation to bats as very often roost selection is closely correlated with the surrounding habitat.

Constraints:

The daytime survey was conducted outside of the main active period and breeding season of bats. However there were no access restrictions that prevented assessment of all buildings. Consequently, a full appraisal and external inspection of the property was achievable in relation to assessing the level of bat roost potential that may exist.

Survey Results:

There are several features associated with the main Public House building that provide potential points of access for crevice dwelling bats, such as pipistrelle bat species and hence provide bat roost potential.

These features include;

- Gaps under the roof slates, particularly on the rear southern elevation.
- Several rows of missing slates.
- Gaps and holes in masonry on the roof apex / wall junctions.
- Gaps under lead roof flashing.

(see photographs at the end of this report for details of these features).

Overall the buildings are regarded as having **moderate-high** bat roost potential.

The extent and nature of these features are such that even if an internal inspection of the buildings was undertaken and no evidence was found, this would not be conclusive. This is because it is not possible to physically inspect all these features without at least partial destruction of the building and potentially roost sites. Where potential has been identified as

Survey Results:

No burrows or active signs of the species were found.

However the watercourse is potentially suitable for the species. Given the considerable constraints the survey cannot be regarded as conclusive.

2.2.3 Otter Survey

Survey Methodology:

The survey undertaken follows guidance provided in the *New Rivers & Wildlife Handbook* RSPB, NRA and RSNC (2001), and searches were undertaken for footprints, spraints, holts and potential couches and trails.

The survey is based upon the examination of the banks and watercourse along the sites western boundary.

Survey Constraints:

All areas river and banks were accessible. There were no constraints to the survey.

Survey Results:

No evidence of the species was found on the surveyed section.

The species is deemed to be absent from the stream, however otters are expanding their range in Lancashire and are known to be present in the Ribble catchment.

2.2.4 Other Protected Species:

Issues in relation to other potential protected species where no specific survey was undertaken are assessed in the following section.

3.1.4 Protected Species:

Badgers:

Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981, and under the Protection of Badgers Act 1992, which prohibits deliberate interference with the animal or its sett.

The survey found no evidence of historic, recent or current use of the site by badgers for foraging, commuting or occupation and the species is considered to be absent.

Recommendations: Badgers;

There are no issues in relation to badgers arising from the development. No further surveys are required.

Water Voles:

Water voles *(Arvicola terrestris)* are protected by the Wildlife & Countryside Act (1981) as amended. In 1998 particular emphasis of protection was given to the water vole's burrow in respect of Section 9(4) of the above act. Water vole is also protected under the NERC Act (2006). Water voles are also a UK Priority Biodiversity species.

The survey found no evidence of water vole from the adjacent watercourse. However the watercourse is potentially suitable for the species. Given the considerable constraints the survey cannot be regarded as conclusive.

Recommendations: Water Voles;

A suitable undeveloped / undisturbed buffer zone of around 5m should be maintained on the western boundary with the stream.

Great Crested Newt:

Great crested newt is comprehensively protected under European legislation.

There are no waterbodies on the site or within the terrestrial range of the species considered capable of supporting the species.

Recommendations: Great Crested Newt;

There are no issues in respect of great crested newts or other amphibians.

Birds:

All breeding birds *(with only minor exceptions)* are protected under the Wildlife and Countryside Act (1981) as amended.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

Use of Buildings by Bats:

a) Summer breeding roost.
b) Hibernation.
c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

Up to nine bat species have been regularly recorded in Lancashire most of which use built structures, notably occupied residential properties for roosting. The most frequently encountered species is the Pipistrelle bat; its abundant status in Lancashire is reflected throughout the UK. All British bats and their roosts are afforded protection under the 1981 Wildlife & Countryside Act (as amended) and are listed in Schedule 2 of the Conservation of Habitats & Species Regulations 2010 (as amended). When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the 2010 Regulations and therefore has a statutory duty to have due regard to the provisions of the Regulations in the exercise of its functions.

<u>Recommendations: Bats;</u>

Based on the assessment that the buildings have moderate - high bat roost potential and the proximity of high quality bat foraging habitats bat activity surveys are recommended for the site with particular focus on the buildings. Due to the nature of the buildings and proximity of good bat habitat there is potential for bats to be present at any time of year within these buildings.

Therefore a total of at least two bat activity surveys are recommended that include a reasonable spread of surveys over the late spring / summer period *(April/May - August being the ideal period).* The surveys should be at least three to four weeks apart. Dependent on the results of the first two dusk surveys it may be decided that a third survey is required, this will be at the discretion of the bat consultant.

Prior to the first dusk survey an internal inspection of the buildings will take place and will include any loft spaces present in the buildings.

Following the completion of these surveys further recommendations will be made in respect of any licensing issues.

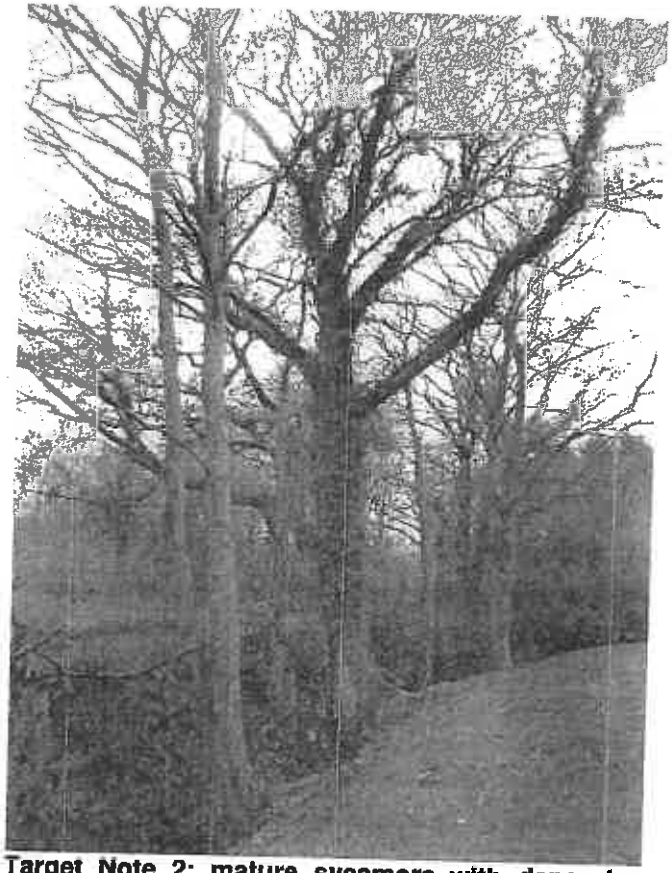
APPENDIX 1:

Map 1: Extended Phase 1 Habitat Survey

Site Photographs

Target Note 1: Stream mid-section upper banks

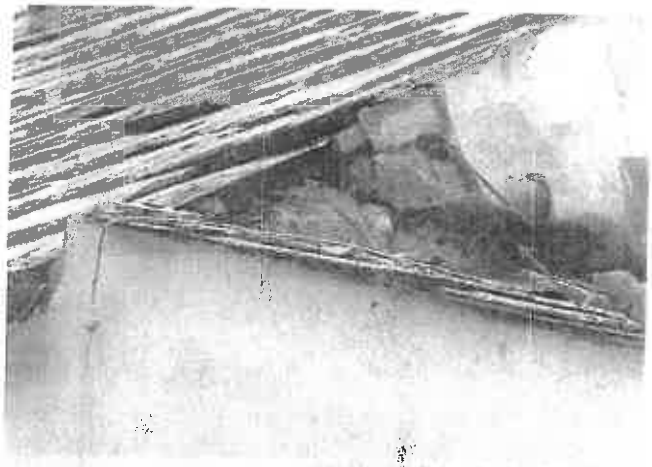
Target Note 1: Stream downstream section upper banks



Target Note 2: mature sycamore with dense ivy cover provides low/moderate bat roost potential.

Target Note 4: Rear elevation of pub with moderate - high bat roost potential due to various roof access points

Target Note 4: Rear elevation of pub with moderate - high bat roost potential due to various roof access points.



Target Note 4: Rear elevation of pub with moderate - high bat roost potential due to various roof access points

Mature Leyland cypress hedge / tree line.

Target Note 4: Rear elevation of pub with moderate - high bat roost potential due to various roof access points

Tarmac area

Looking south into the site from the north eastern boundary.