



WE KNOW SERVICES

BAT SURVEY REPORT

THE BRIDGE INN,
CHILDWALL VALLEY ROAD

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Summary

We Know Services was commissioned by Condry and Lofthouse Ltd on behalf of CLAMCO Ltd to undertake a Bat Survey at the Bridge Inn Public House on Childwall Valley Road, Liverpool. The survey follows on from a preceding Ecological Assessment conducted by Joe Barnes of We Know Services (in April 2015) which included a detailed internal and external inspection of the buildings and trees on site, and an assessment of the potential of these features for supporting bat roosts.

The purpose of the survey and the report is to assess the site for the presence of bat roosts and for the potential impacts of the development proposals upon bats in relation to a planning application for the site, which includes demolition of all buildings present.

The survey comprised of broad habitat assessment of the above site followed by a full dusk emergence and dawn re-entry survey, all following Bat Conservation Trust Guidelines (Collins, J (Ed), 2016). The survey was conducted to determine whether or not bats roost within the buildings or trees on site and to assess the potential impacts of the proposed development upon bats.

The assessment identified no evidence of bat roosts associated with the site. Overall the buildings were assessed as being of 'low-moderate potential' for supporting bats due to the presence of potential roost features for bats and the good quality of the immediate environment for bats.

Overall, where mitigation in relation to artificial lighting is adopted there is anticipated to be no impact upon bats as a result of the proposed development. Through the adoption of additional enhancement measures in the form of tree mounted bat boxes, the potential for bats to roost on the site would be maintained post-development. In view of the above, no further survey or licencing is recommended.

It is not anticipated that conservation status of bats will be adversely affected by the proposed development and the legislation relating to bats has been appropriately addressed.

1. INTRODUCTION

We Know Services was commissioned by Condry and Lofthouse Ltd on behalf of CLAMCO Ltd to undertake a Bat Survey at the Bridge Inn Public House on Childwall Valley Road, Childwall in Liverpool. The survey follows on from a preceding Ecological Assessment conducted by Joe Barnes of We Know Services (in April 2015) which included a detailed internal and external inspection of the buildings and trees on site, and an assessment of the potential of these features for supporting bat roosts. The purpose of the survey and the report is to assess the site for the presence of bat roosts and for the potential impacts of the development proposals upon bats in relation to a planning application for the site, which includes demolition of all buildings present.

1.1. Site Description

The site is a Public House currently in use but proposed for closure and demolition. The Bridge Inn is located on the corner of Childwall Valley Road and Kings Drive near Belle Vale, Childwall, Liverpool (NGR: SJ 43545 88414). The site lies immediately off Childwall Valley Road, 650 m east of Belle Vale shopping centre, 260 m east of Belle Vale Park and 170 m west of Lee Park Golf Course and is situated in a largely developed area characterised by residential properties and other associated development.



Figure 1. Site and surrounding landscape character

1.2. Proposed Works

It is understood that the proposals are for the demolition of the existing buildings and re development of the site.

1.3. Personnel & Quality Assurance

Surveyors employed during the survey included Rob Nicholson (BSc) Hons MCIEEM, Pauline Michelle BSc (Hons) CEnv MCIEEM, Nicola Meredith, Cathy Jones and Mike Parker.

All field work was led by an appropriately licenced and experienced ecologist in accordance with current best practice guidelines (Collins, J. (Ed) 2016).

2. LEGAL STATUS

In England, all British bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2012 and the Wildlife & Countryside Act 1981 (as amended).

These pieces of legislation combine to give substantial protection to bats and their roost sites, making it an offence to:

- Deliberately or intentionally kill, injure or take a bat;
- Damage, destroy or intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not);
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

Section 40 of the NERC Act 2006 places a statutory duty on public bodies such as local authorities that “*every public body must, in exercising its functions have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity*”. Section 41 of the NERC Act requires the Secretary of State to draw up a list of Habitats and Species of Principal Importance which should be used to guide decision makers (which include local authorities) in implementing their duty under Section 40 (see below for relevant bat species).

The UK Biodiversity Action Plan (UKBAP), published in 1994 to fulfil the Convention on Biological Diversity (CBD), to which the UK is a signatory (since 1992), produced a national priority species list with all species included having specific action plans defining the measures required to ensure their conservation. Regional and local Biodiversity Action Plans (BAPs) were also written and adopted to develop plans for species of nature conservation importance at regional and local levels.

The UKBAP, as updated in 2007, listed seven bat species as conservation priorities. These species are also listed as Species of Principal Importance under Section 41 of the NERC Act (2006):

- Soprano Pipistrelle (*Pipistrellus pygmaeus*)
- Brown Long-eared (*Plecotus auritus*)
- Barbastelle (*Barbastella barbastellus*)
- Bechstein's (*Myotis bechsteinii*)
- Noctule (*Nyctalus noctula*)
- Greater Horseshoe (*Rhinolophus ferrumequinum*)
- Lesser Horseshoe (*Rhinolophus hipposideros*)

The above was since succeeded in by the 'UK Post-2010 Biodiversity Framework' (July, 2012) the purpose of which is to set a broad enabling structure for action across the UK between now and 2020.

3. METHODOLOGY

3.1. Desk Study

In order to inform the survey, a desk study was conducted using available ecological information relating to bats for the area surrounding the site. This included a review of the existing Ecological Assessment of the site (We Know Services, 2015).

Online resources, including Multi-Agency Geographic Information Centre (MAGIC), were also consulted in relation to the presence of sites and habitats of importance for bats in the wider context and also any existing records of European Protected Species Mitigation Licence (EPSML) applications for bats within 2 km of the site.

3.2. Pre-development Bat Survey

3.2.1. Habitat Survey

A broad habitat survey was conducted of the site to inform the assessment of the suitability of the site for bats. Broad habitat descriptions were assigned and their values with respect to bats at site level and in the wider context assessed.

3.2.2. Emergence and Re-entry Surveys

Two dusk emergence surveys were undertaken on 31st May and 1st June 2016. The dusk surveys commenced 30 minutes before sunset and continued for a minimum of 2 hours after sunset. The dawn re-entry survey was undertaken on 15th June 2016 and commenced 1 hour and 30 minutes prior to sunrise and 15 minutes after sunrise.

During the surveys, up to five surveyors were strategically positioned, focusing on features identified as potential access points for bats during the building inspections, to ensure observations could be made of any bats leaving or entering potential roost locations. During the first survey five surveyors were present; during the second survey four surveyors were used and for the final dawn survey two surveyors were used as areas of interest were identified and focused upon.

All observed bat passes were recorded; noting the time, the location and, where possible, the direction of flight, species and behaviour of the bat (i.e. commuting, foraging, social calling).

After completion of each survey session, digital recordings of bat echolocation taken during the survey were analysed using Bat Sound sonogram analysis software for recordings taken using Batbox Duet Heterodyne and Frequency Division detectors linked to digital external recording devices (Olympus [S10) and Analook software for Wildlife Acoustics Song Meter (SM)2+ detectors recorded in zero-crossing format, to confirm species identification.

Two SM2+ detectors were placed 10-15m from the buildings throughout the duration of the three survey visits to supplement recordings taken manually by surveyors.

See Appendix D for illustrations of sonograms taken from surveys.

During the surveys, the following details were noted as appropriate:

- Weather and temperature (temperatures were taken from internal data logger in the SM2+ bat detector units following the surveys);

- Time bat detected/observed;
- Frequency at which the bat was detected;
- Location within the survey area;
- Whether bats emerged from a potential roost location;
- Direction of flight;
- Number of bats observed; and
- Whether the bats appeared to be foraging or commuting.

Temperature, wind speed and cloud cover were recorded at the beginning and end of the survey, along with any significant weather changes during the survey.

3.3. Evaluation Methods

The 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (3rd edition) (Collins, J. (Ed) 2016) are used as a basis to evaluate the value of features for their potential to support bats.

In addition, the Bat Mitigation Guidelines (English Nature 2004) was referred to specifically in terms of evaluating the need for an EPS Licence and in designing suitable mitigation.

The potential impacts on bats, bat habitat or their roosts as a result of the proposals are assessed within this report using the above criteria, together with an ecological judgement by an experienced bat surveyor.

4. CONSTRAINTS

External field signs of bats can be lost over time due to weathering and damp conditions. Droppings and other field signs are not always visible through non-intrusive inspection.

This survey was limited to two months of the active season for bats overall and therefore does not cover every month of the active season for bats.

Surveyor positions were adapted for each survey position to take account of high levels of light pollution from street lighting and to make ensure the areas of greatest potential were focussed upon.

5. RESULTS

5.1. Desk Study

Online Resources

According to the Natural England online mapping resource MAGIC there are no statutory designated sites for which bats are a qualifying feature within 2 km of the site.

No granted European Protected Species Mitigation Licence applications for bats were identified within 2km of the site.

Existing records of bats identified through the Ecological Assessment Report (data supplied by Merseyside Biobank) included nine records of Pipistrelle species. These dated between 1989 and 2007, with the nearest record being located 634m south east of the site.

The Ecological Assessment identified the Public House buildings on site to be of potential for supporting bat roosts with possible feeding remains and a single old bat dropping thought to be potentially that of a Brown Long-eared bat (unconfirmed).

5.2. Field Survey

5.2.1. Broad Habitat Survey

The site comprises of large Public House, outbuilding and betting shop with associated hardstanding and garden areas. For a full description and assessment of the buildings on site, please see the existing Ecological Assessment report (We Know Services, 2015).

The gardens are situated to the south of the site and comprise of one large area of amenity grassland and another large area which is not maintained and is therefore dominated by bramble and tall ruderal vegetation.

There is a row of mature trees to the southern boundary and a single mature Lombardy Poplar tree (*Populus nigra italica*).

The site is subject to significant direct artificial light pollution from street lighting, particularly from street lighting from the northern aspect of the site (see site photos at Appendix B).

5.2.2. Bat Survey

The objective of the bat survey was to identify and assess for the presence of bat roosts which may potentially be affected by the proposed development of the site.

Emergence and Re-entry Surveys

The emergence and re-entry surveys were informed by the visual inspection and assessment of buildings outlined in the existing Ecological Assessment (We Know Services, 2015). The presence of a bat roost could not be ruled out through detailed visual inspection alone, with buildings classified as being of potential for supporting bat roosts overall.

The emergence surveys were conducted with the aim of recording any bat activity associated with features identified in order to identify any bat roosts if present.

Each of the surveys was undertaken under suitable weather conditions with temperatures greater than 10°C (Collins. J (ed.), 2016).

A plan indicating the locations of the surveyors in relation to the building is provided in Appendix C and full results of the survey are provided in Appendix E.

Emergence Survey—31st May 2016

The survey commenced at 21.00hrs and sunset was at 21.30hrs. The survey ended at 23.30hrs.

No bats were recorded emerging from any of the buildings or trees within the site during this survey.

Bat activity commenced at 21.19hrs when Common Pipistrelle (*Pipistrellus pipistrellus*) were recorded foraging at distance off site. The next bat activity recorded was at 22.18hrs with faint activity recorded off site to the southern site boundary. Occasional distant foraging activity was recorded with no bats observed until 23.06hrs one Common Pipistrelle was observed commuting east-west over the Public House garden to the south of the buildings before exiting the site to the west.

No further bat activity was observed, with only occasional distant foraging recorded until the end of the survey.

Emergence Survey — 1st June 2016

The survey commenced at 21.00hrs and sunset was at 21.30hrs. The survey ended at 23.30hrs.

No bats were recorded emerging from any of the buildings or trees within the site during this survey.

Survey results were consistent with that of the previous survey with no significant deviation recorded.

Re-entry Survey— 15th June 2016

The re-entry survey commenced at 03.20hrs and sunrise was at 04.50hrs. The survey ended at 05.05hrs.

No bats were observed re-entering any part of the buildings or trees within the site during the survey.

The first and only bat (*Pipistrelle* sp.) recorded was at 03.22hrs foraging some distance from the site with no visual confirmation of location.

6. EVALUATION AND INTERPRETATION

6.1. Roosts and Habitat

Following the bat survey, no evidence of the presence of a bat roost has been identified in association with the site.

6.2. The Value of the Site for Bats

The buildings are assessed as being of low-moderate potential for supporting bat roosts on account of the number of diversity of features suitable for supporting roosts, absence of field signs and the relatively good quality of the environment immediate to the buildings (to the south and in the wider context) in relation to bats.

Very few observations of bats were made within or in close proximity to the site throughout the surveys.

There are numerous buildings and trees in the wider context with the potential to support bat roosts but in view of the results of the survey the site does not support bat roosts and is not of any other significance for bats.

7. IMPACTS

The proposed development is located within a site detached from any other structures that could potentially support bat roosts, and is of relatively small scale. No bat roosts have been identified in association with the buildings or trees within the site and the buildings are assessed as being of potentially low-moderate value (Collins, J (Ed). 2016) for supporting bat

roosts. In the absence of any evidence of a bat roost, it is anticipated that no bat roosts will be affected by the proposed development.

8. ADVICE AND RECOMMENDATIONS

It is advised that bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2012 and the Wildlife & Countryside Act 1981 (as amended).

It is advised that it is illegal to deliberately/intentionally or recklessly: kill, injure or take a bat; damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not); and disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

8.1. Recommendations for Further Survey, Mitigation and Licensing

In view of the results of the survey, no further survey or licensing is required in relation to this development.

Very few bats were recorded within the site throughout the survey and no roosts have been identified within the site. However, bats and other wildlife should be considered in relation to the proposed development.

In view of the above, the below recommendations for mitigation and enhancement of the site post-development, are made:

- External artificial lighting associated with the development should consider wildlife. Lighting installed should be sensitive to the presence of nocturnal wildlife (e.g. bats and owls) and wherever possible should include the use of directional lighting, hoods/cowls, motion sensors, timers and avoid the use of the most disturbing bulb types (e.g. metal halide). Further advice on this can be provided upon request or sourced via the Bat Conservation Trust (BCT) website. In particular
- To enhance the roosting opportunities around the site post-development but remote from the development itself, it is recommended that consideration is given to installation of 4 x tree mounted multi-purpose bat boxes to be placed upon mature trees present to the southern site boundary. Ideally boxes such as Schwegler 2F and 1FF should be considered.

9. CONCLUSIONS

In view of the results of the assessment, it is considered that no further surveys are required in order to comply with bat survey guidelines (Collins, J. (Ed) 2016).

Based on the evidence available and professional judgement of the licenced ecologist, it is not anticipated that the development will have any detrimental impact upon the conservation status of bats, and where the basic mitigation measures recommended above are adopted the ecological value of the site for bats will not be adversely effected as a result of the development and the legislation relating to bats has been addressed.

10. CAVEAT

In the unlikely event that at any time during the works bats or other wildlife (e.g. nesting birds) be suspected to be present, works should cease and an ecologist should be contacted for advice.

11. REFERENCES

Bat Conservation Trust (2000). *Distribution atlas of bats in Britain and Ireland 1980-1999*. Bat Conservation Trust, London.

Collins, J (Ed). (2016). *Bat Surveys for Professional Ecologists - Good Practice Guidelines*, 3rd edition. Bat Conservation Trust.

Bat Conservation Trust website: <http://www.bats.org.uk/>

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

Multi-Agency Geographic Information Centre: <http://magic.defra.gov.uk/>

We Know Services (2015) Ecological Assessment Report. The Bridge Inn, Childwall Valley Road, Childwall.

APPENDIX A: SITE LOCATION PLAN



APPENDIX B: SITE PHOTOGRAPHS



Plate 1 — Northern aspect of Public House. Heavily lit by street lighting.



Plate 2 — Eastern aspect of the Public House and outbuilding



Plate 3 — Western aspect of Public House.



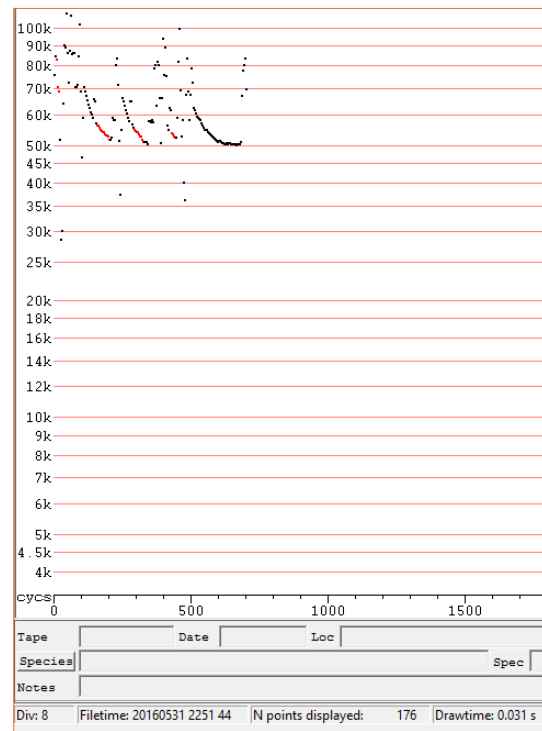
Plate 4 — Southern aspect of Public House

APPENDIX C: BUILDING AND SURVEYOR LOCATION PLAN

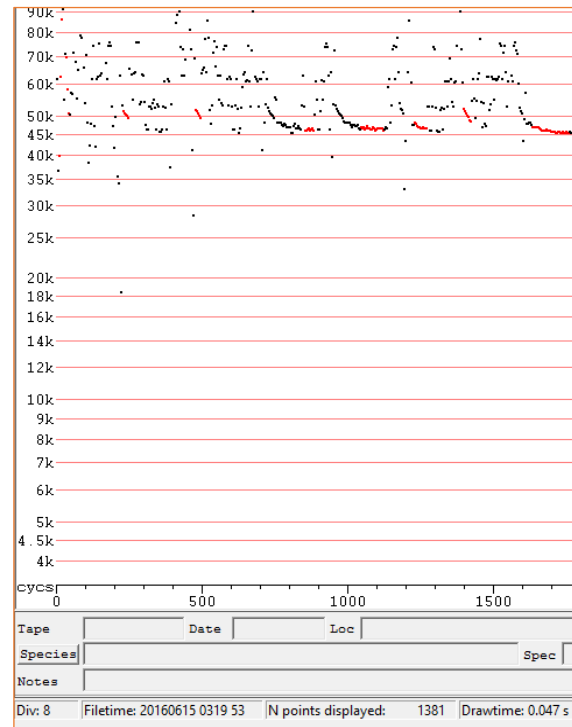


Red Number = Central surveyor location

APPENDIX D: SONOGRAMS



Pipistrelle sp. — 22.51 31.5.2016



Common Pipistrelle — 03.19 15.6.2016

APPENDIX E: SURVEY DATA

31st May 2016 — Dusk Emergence Survey

Weather	Temp: 18 oC	Cloud Cover: 30%	Wind: Neg.	Precipitation: nil
Time	Species	Activity	Location	Method of ID
21.00	Survey commenced			
21.19	Common Pipistrelle	Foraging (distant)	Off site	Bat Box Duet
21.30	Sunset			
22.18	Common Pipistrelle	Foraging (faint)	Unknown	SM2+ I Bat Box Duet
22.20	Common Pipistrelle	Foraging (faint)	Unknown	SM2+ I Bat Box Duet
22.25	Common Pipistrelle	Foraging (faint)	Unknown	SM2+ I Bat Box Duet
22.51	Pipistrelle sp.	Foraging	South of Public House	SM2+ I Bat Box Duet
23.06	Common Pipistrelle	Foraging (faint)	Unknown	SM2+ I Bat Box Duet
23.21	Common Pipistrelle	Foraging (faint)	Unknown	SM2+ I Bat Box Duet
23.30	Common Pipistrelle	Foraging (faint)	Unknown	SM2+ I Bat Box Duet
23.30	Survey ceased (bat activity diminished)			
Weather	Temp: 10oC	Cloud Cover: 20%	Wind: Neg.	Precipitation: nil

1st June 2016 — Dusk Emergence Survey

Weather	Temp: 14 oC	Cloud Cover: 30%	Wind: Neg.	Precipitation: nil
Time	Species	Activity	Location	Method of ID
21.00	Survey commenced			
21.30	Sunset			
22.14	Common Pipistrelle	Commuting	off site	SM2+ I Bat Box Duet
22.24	Common Pipistrelle	Commuting	off site	SM2+ I Bat Box Duet
22.30	Common Pipistrelle	Commuting	off site	SM2+ I Bat Box Duet
22.41	Common Pipistrelle	Foraging	off site	SM2+ I Bat Box Duet
22.46	Common Pipistrelle	Commuting	off site	SM2+ I Bat Box Duet
23.06	Common Pipistrelle	Commuting	off site	SM2+ I Bat Box Duet
23.07	Pipistrelle sp.	Foraging	off site	SM2+ I Bat Box Duet
23.21	Common Pipistrelle	Commuting (brief)	off site	SM2+ I Bat Box Duet
23.30	Common Pipistrelle	Commuting (brief)	off site	SM2+ I Bat Box Duet
23.30	Survey ceased (bat activity diminished)			
Weather	Temp: 11.0oC	Cloud Cover: 20%	Wind: Neg.	Precipitation: nil

15th June 2016 — Dawn Re-entry Survey

Weather	Temp: 11.5 oC	Cloud Cover: 80%	Wind: Neg.	Precipitation: nil
Time	Species	Activity	Location	Method of ID
03.20	Survey commenced			
03.19	Common Pipistrelle	Commuting (brief)	Off site	SM2+ I Bat Box Duet
04.50	Sunrise			
05.05	Survey ceased (bat activity ceased)			
Weather	Temp: 12.0oC	Cloud Cover: 50%	Wind: Neg.	Precipitation: nil