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Bat Presence/Likely-absence Survey

Report Prepared on behalf of App Chem Ltd.
For Hugmore Lane, Wrexham, LL13 9YE

31/05/2016

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Bat Presence/Likely-absence Survey

Background to Survey

The client, App Chem Ltd. has commissioned Arbtech Consulting Ltd. to undertake two bat presence/likely-absence¹ surveys for the brick built section of the factory at Hugmore Lane, Wrexham, LL13 9YE. The proposed plans involve demolishing the factory and obtain planning permission to build new dwellings in its place.

The surveys build upon a Preliminary Roost Assessment (PEA) undertaken by Arbtech Consulting Ltd. on the 5th November 2015.

Summary of Recommendations

Two presence/likely-absence surveys have been conducted in accordance with industry standard guidelines (Hundt 2016).

As a result of these surveys, it is assessed that there is a likely-absence of bats/bat roosts within the structure. No further evaluation is considered necessary. A planning decision can be made on the basis that there is no risk to bats or bat roosts.

Sufficient information is provided so that the Local Planning Authority (LPA) can make a consenting decision in accordance with the obligations placed upon it under The Conservation of Habitats and Species (Amendment) Regulations 2012.

Summary of Potential Mitigation, Potential Impact, Loss and Gain

Bat Species	Potential impact/loss?	Potential mitigation required	Potential ecological gain?
UK Bat Species	None - likely absence of bats in B1.	None required - enhancements are recommended in the recommendations section of the report.	Bat boxes encouraging future use of the site by bats.

¹ It is not currently scientifically possible to prove an absence so an assessed absence is usually referred to as a "likely-absence".

1.0 The Company and Contact Information

Established in 2005, Arbtech Consulting Limited provides arboricultural and ecological consultancy services in respect to planning and development, throughout the UK.

Tel 01244 660558

@ email@arbtech.co.uk

Web www.arbtech.co.uk

2.0 The Lead Surveyor

The lead surveyor is Amy Stanley BSc (Hons).

2.1 Other Surveyors

Ben Stanley an experienced bat surveyor with two years' experience of conducting this type of survey.

3.0 Bat Licences

The lead surveyor is an accredited agent with Natural Resources Wales for the undertaking of this type of survey under Christopher Formaggia. Licence details will be made available on request to jg@arbtech.co.uk.

4.0 The Client

The client is App Chem Ltd.

5.0 The Site of Proposed Development

The client is preparing a planning application to demolish the factory to obtain planning permission for houses to be built on the site at Hugmore Lane, Wrexham.

6.0 The Survey Brief

The client has commissioned Arbtech Consulting Ltd to undertake two bat presence/likely-absence survey; in accordance with best practice as set out in BCT Bat Survey Guidelines (2016).

7.0 Controls

This survey can only ever provide a limited ‘snap-shot’ of the potential habitat and wildlife value of the structure(s) at the times of the surveys only and may require further evaluation to provide robust, scientifically valid evidence of species likely-absence.

Physical access internally and externally is often limited by physical barriers and/or health and safety constraints.

8.0 Data Searches

A 2km data search has been commissioned in order to retrieve existing bat records in the area to provide scientific context. **The data search is confidential information that is not suitable for public release.**

This was ordered at the Preliminary Ecological Appraisal stage which was conducted by Cheshire Ecological Services (CES) in September 2015.

9.0 Dates of the Survey

24th May 2016 and 13th June 2016 .

10.0 Seasonality

This type of assessment can be conducted during the period May to September inclusive, with the optimal season for surveying maternity colonies limited to mid-May to August inclusive (Hundt, 2016). Exceptionally, owing to favourable weather conditions it may be possible to extend the survey window but this will need the prior agreement of the regulatory bodies.

11.0 Informative

Table 1: Summary of Pertinent Legislation and Planning Policy Relevant to the Protection of Bats in the UK

This table is adapted from Table 2.1 and Section 2.5 of the Bat Surveys—Good Practice Guidelines.

Location of Roost	Transposing EC Habitats Directive	Other Relevant Legislation	Planning Policy
England	Conservation of Habitats and Species Regulations 2010. The Conservation of Habitats and Species (Amendment) Regulations 2012	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	National Planning Policy Framework (“NPPF”).
Wales	Conservation of Habitats and Species Regulations 2010. The Conservation of Habitats and Species (Amendment) Regulations 2012	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	Technical Advice Note (“TAN”) 5.
Scotland	Conservation (Natural Habitat & c.) Regulations 1994 as amended.	Wildlife and Countryside Act 1981 as amended. The Nature conservation (Scotland) Act 2004.	National Planning Policy Guidance (“NPPG”) 14 and Planning Advice Note (“PAN”) 60.

Cumulatively, this legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat, unless acquired legally.
- Sell, barter or exchange bats, or any part of a bat.

A bat roost is defined by Hundt as “the resting place of a bat”. Generally however, the word roost is interpreted to mean “any structure or place, which any wild bat uses for shelter or protection.”

12.0 The Survey Methodology

In order to fully assess the potential value of bat habitat at the site, the survey is based upon widely accepted, industry best-practice standards set out in the BCT Bat Survey Guidelines.

The survey involves for the observation of all elevations the structure(s) by suitably experienced bat surveyors. The surveyors utilise broadband bat detectors to assist with the bat recording.

Inspections are both internal (where possible) and external, and make use of

- Torches
- Broadband Bat Detectors (Bat box duet x 1 and Echo meter touch x 1)
- Thermometers/hygrometers/anemometers
- Camera

The aims of the survey are:

- To determine presence/likely-absence of species i.e. the species present in a given area.
- To determine the intensity of bat activity both spatially and temporally i.e. to help estimate bat populations.
- To determine the type of activity, most usually foraging (e.g. by feeding buzzes), commuting (e.g. by high directional pass rates) and mating (e.g. by mating social calls).
- To find roosts by tracking back bat flight paths or observing dawn flight activity at roosts.
- To find or record the emergence of bats from a building or built structure.

If bats, evidence of their recent activity or the emergence of bats from a roost are found during our survey, this report will make recommendations for further survey work and/or design mitigation, where this is consistent with national guidelines, and assessed appropriate by the surveyor in the context of the proposal.

13.0 Previous Survey Findings (*If PRA'd previously*)

The site was the subject of a Preliminary Roost Assessment (PRA) conducted by Arbtech Consulting Ltd. on 5th November 2015, the results of this are described below. A Phase 1 Habitat Survey was conducted by CES in September 2015.

Table 2: PRA Summary

Roost	Habitat Value	Are bat emergence surveys required?
B1	Potentially suitable for small numbers of more widespread crevice dwelling species only. Access into the building possible via raised slate tiles. Accompanied by eaves/crawl spaces that were too small to inspect for droppings. Landscape connectivity through hedgerows on site and across neighbouring fields and suitable foraging habitat within 200m.	Yes. 2x Dusk survey. May to September inclusive. 2x Surveyors.
B2	Constructed of building materials that are not ideal for roosting bats due to poor thermoregulation (fluctuating temperatures). No evidence of bats observed and no suitable access or egress points.	No.
Trees	No evidence of bats observed and no suitable roosting places within the trees.	No.

14.0 Dates of the Bat Emergence Survey

Table 3: Survey Dates, Times and Weather Records

Date	Survey	Time: from/to	Weather: Start	Weather: Finish
24/05/2016	Dusk Sunset: 21:16	21:00-23:00	Temp: 11°C Humidity: 68% Cloudy: 50% Wind: 2/8 Rain: None	Temp: 9 °C Humidity: 76% Cloudy: 20% Wind: 2/8 Rain: None
13/06/2016	Dusk Sunset: 21:39	21:20-23:20	Temp: 11°C Humidity: 68% Cloudy: 50% Wind: 2/8 Rain: None	Temp: 11°C Humidity: 68% Cloudy: 50% Wind: 2/8 Rain: None

15.0 Extent of the Desk Study

Table 4: Buildings and or trees referred to by number and in accordance with the sketch plan at Appendix 1.

Desk Study Records & local environment	The Magic database shows there is an ancient woodland ~800m from the site. This habitat is likely to be classified as Priority habitat of principle importance, and of particular value to bats. A review of aerial photographs (Figure 1) and OS maps shows there is a planted woodland to the wider hedgerow network, the hedgerows provide a suitable habitat corridor for bats. There is also suitable foraging habitat on the surrounding farms.
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Figure 1: Aerial photo of site, showing landscape structure

COFNOD has provided bat records for within 1km of the site. These were obtained at the Preliminary Ecological Appraisal stage and can be provided on request from CES. The data confirms there are bats recorded within 1km of the site.

The buildings within the survey area comprised of a long brick built building with a slate pitched roof and adjoining this was a factory unit. This was constructed of a sheeted metal with an asbestos mixed roof on the south elevation. The adjoining building is referred to as B2 and the slate tiled office area is referred to as B1. There is a row of silver birch trees on site which are unsuitable for roosting bats but two larger oak trees were examined for their potential. Further habitat information is available in the Preliminary Ecological Appraisal produced by CES.

16.0 Survey Results

Table 5: Buildings referred to by number and in accordance with the sketch plan at Appendix 1 and photographs at Appendix 2.

Surveyors: A: Amy Stanley B: Ben Stanley				
Surveyor Initials	Suspected Roost Identified on sketch plan at Appendix 1	Dates and Times	Records of Significant Bat Activity	Roost Status: Emergence (Black) Activity (Amber) No Activity (Green)
		14/05/2016 Sunset 21:16		
A	B1	21:37	Common pipistrelle <i>Pipistrellus pipistrellus</i> heard but not seen.	Activity
		21:53-22:10	Common pipistrelle constant activity in courtyard.	Activity
		22:00	Noctule <i>Nyctalus noctula</i> distant pass heard but not seen.	Activity
		22:13-22:18	Soprano pipistrelle <i>Pipistrellus pygmaeus</i> constant activity in courtyard.	Activity
		22:22	Common pipistrelle heard but not seen.	Activity
B	B1	21:53	Common pipistrelle foraging in tree line (east).	Activity
		21:56	Common pipistrelle in field to the east.	Activity
		21:57	Common pipistrelle foraging in tree line (east).	Activity
		22:00	Common pipistrelle heard but not seen.	Activity
		22:02	Common pipistrelle in field to the east.	Activity
		22:13	Common pipistrelle heard but not seen.	Activity
		13/06/2016 Sunset 21:39		

A	B1	22:00	Common pipistrelle heard but not seen.	Activity
		22:04	Common pipistrelle flew over the building (north to south west).	Activity
		22:39	Common pipistrelle flew across courtyard (west to east).	Activity
		22:47	Common pipistrelle heard but not seen.	Activity
B	B1	22:06	Common pipistrelle heard but not seen.	Activity
		22:07	Common pipistrelle heard but not seen.	Activity
		22:08	Common pipistrelle foraging in tree line (east).	Activity
		22:25	Common pipistrelle heard but not seen.	Activity
		22:34	Common pipistrelle heard but not seen.	Activity
		22:39	Common pipistrelle heard but not seen.	Activity

Bat activity maps and surveyor locations are found at Appendix 1

17.0 Conclusions and Recommendations

Table 6: Buildings, Groups or Trees referred to by number and in accordance with the sketch plan at Appendix I.

Suspected roost Identified on sketch plan at Appendix 1	Was the roost confirmed?	Will the development affect the roost?	What recommendations and mitigation are appropriate?	Is a European Protected Species Licence necessary?
B1	Unconfirmed ☒ Further survey work required ☐ Confirmed ☐	N/A No roost confirmed on site.	Mitchel-Jones (2004) defines the conservation value of bat habitats and roosts and makes proposals for mitigation that are appropriate to: the species of bat(s); the population using the roost; and the roost's status e.g. maternity, pre-breeding summer roost, <i>hibernacula</i> , etc. We recommend: 2x Schwegler 1FF Bat boxes to be placed on any of the trees that are to be retained at the rear of the site as a positive biodiversity enhancement in line with the LPA's obligation to seek such enhancements through its consenting regime. The bat boxes should be placed at least 5m from the ground facing South or South west (depending on the best angle for the tree).	Yes ☐ No ☒

18.0 Bibliography

Collins, J. (ed.) (2016) Bat Surveys: Good Practice Guidelines, 3rd edition, Bat Conservation Trust

National Planning Policy Framework, 2012

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<http://www.communities.gov.uk/documents/planningandbuilding/pdf/147570.pdf>

19.0 Document Production and Approval

Status	Issue	Author/Reviewer	Date
Draft	1	Amy Stanley BSc (Hons)	15/06/2016
Review	1	Jo Gregory BA (Hons) Msc GradCIEEM, Senior Consultant	17/06/2016

20.0 Limitations

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Appendix 1 Plan



Appendix 2 Photos

Photo 1: B1
& B2



Photo 2:
Interior of
loft space in
B1

