

Bat Surveys Report

Baileys Lane, Halewood, Liverpool.

Prepared for: FAS developments

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30.09.2024

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1. Introduction

1.1 Site description, location, and context

The site is located within Halewood, Liverpool, a suburban environment that is surrounded by existing residential land uses (to the west) and rural (agricultural/wooded) areas to the west. The structures to be assessed for bat roost potential are a farmhouse (B1), a small outbuilding (B2), a brick barn (B3) and a garage (B4).

1.2 Purpose, aims and objectives of this report

The Bat Roost Assessment indicates in section 5.0:

“The buildings have been reliably assessed as follows – B1 high potential, B2, low potential, B3, moderate potential and B4 negligible potential. The buildings require further survey to demonstrate presence or absence of bats in accordance with BCT guidelines 2023. Three dusk emergence survey with the use of night vision aids (NVAs) will be required for B1, 2 surveys for B3 and one for B2 with at least two taking place in between May-August to assess for presence of current roosting bats on the buildings.”

The purpose of this report is therefore to establish use of the building for bats by means of survey(s). This survey shall be carried out at the identified points of potential entry or shelter for bat species identified in the BRA. We shall aim to establish absence or presence on the development site in reference to the use of the building by bats. The objective of the report is to be able to assess the bat use in the building, the impact of construction and any applicable mitigation measures in relation to the extent and use of the site by bats.

2. Methods

2.1 Summary of survey methods

The BCT September 2023 good practice survey guidelines (Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good practice Guideline (4th Edn) are used to design and inform the survey effort.

All surveys are compliant to The BCT September 2023 good practice survey guidelines in particular reference to section 7.2 determining presence / absence

Ecologists attend the site at dusk to listen and record (using a full-spectrum bat detector and a night vision aid (NVA) and observe the structure/s or tree/s to watch for bats exiting from them. Information is recorded regarding the bat species encountered, their numbers, access/exit points, roosting locations and flight-paths. Surveyors and recording equipment are stationed appropriately around the structure/s or tree/s in order to observe all the potential roost features on a site, and to ensure that equipment is operational throughout the survey and to adjust infra-red levels, as necessary.

Surveys commence 30 minutes before sunset and continue until 1.5hrs – 2hrs after sunset (depending on survey results, e.g. likelihood of late-emerging species).

Surveyors minimise noise and lighting disturbance whilst setting up and taking down equipment, particularly where ambient and noise and light levels are low in accordance in accordance with section 7.2.7 of the 2023 BCT guidelines.

The survey is recorded using an NVA (infra-red cameras are utilised to enable a clearer view of the allocated structure/tree) in accordance with section 7.2.8 of the guidelines and the surveyors are also equipped with infra-red night vision scopes to enable them to clearly see the potential roost features on the structure/tree once it is dark. Standalone infra-red light sources are also utilised to give a clearer view of the study area. This is particularly important as bats can often emerge after it is too dark to see them without an NVA. Surveyors are appropriately trained in the use of the equipment. Still-shots of each position at the darkest point of the survey are retained and utilised in reporting as described in 7.2.10.

Where cameras are left operational and are unattended, a bat detector soundtrack is also taken from that position and retained to aid accurate recording.

Footage is reviewed the day following the survey to ensure all information regarding bat activity on the site is fresh in the minds of the surveyors in attendance.

If bats are observed emerging, this does not necessarily mean they are roosting in the same location as the exit point, it may be necessary to identify roosting locations separately, for example, by having someone stationed internally. Survey design needs to be iterative, each survey being informed by the previous visit. The results of each surveyor point are recorded in a standard format survey form.

2.2 Pre Survey data search

The closest granted European Protected Species (EPS) license application by Natural England for bat species approximately 2250m south of site. (C-PIP). There are no granted EPS licenses within a 1km radius of site.

2.3 Surveyor information

Simon Brain (Managing Director) has attained a Post Graduate Certificate in Biological Recording and has attended FSC Field Courses for Land mammals, Songbird identification, Barn Owls (CIEEM) and Advanced Bird Survey Techniques (Level M). He has four years experience in bat and avian work. He has accumulated over 450 hours of bat contact time and holds an NE Class 2 license (70619:OTH:CSAB:2016). He has attended courses for trees and bats, bat survey techniques, mitigation and handling and attended seven european workshops. Dawn Good fellow is an experienced senior ecologist with a number of years of bat experience and an accredited agent on the above license number. Remaining surveyors have a number of years of bat surveying experience.

3. Emergence Survey - Results

3.1 Dusk emergence results

Summary

No bats were seen to emerge from the building and it was considered that bats and bat roosts were absent from the building during the survey.

Detailed survey records

Site:	Baileys Lane, Halewood		Start:	End:
Building/Structure/Tree:	Buildings	Precipitation:	0%	0%
Visit No.:	1 of 3	Temperature:	21°C	19°C
Date:	29.07.24	Wind Speed Beaufort (0-12):	0	1
Lead Surveyor:	Ryan Whitmarsh	Cloud Cover (0-8):	2	3
Start Time:	20:48hrs			
Sunset:	21:11hrs			
End Time:	22:41hrs			



- = Surveyor positions
- ▲ = Camera positions

Surveyor:	Ryan Whitmarsh	
Equipment:	Batbox Duet, Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Southern and Western Faces of B1 (Farmhouse).	
Time (hrs)	Species	Comment
21:26	Noctule	Individual bat commuting N-S, high flight.
21:34	Noctule	Foraging over site
21:48	C.Pip	Bat heard but no visual
21:59	C.Pip	Bat heard but no visual

Surveyor:	Jean Bagan	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	B2 (Outbuilding)	
Time (hrs)	Species	Comment
21:26	Noctule	Individual bat commuting N-S, high flight.
21:38	C.Pip	Bat heard but no visual
21:52	C.Pip	Bat observed passing N-S across western face of outbuilding.
22:29	C.Pip	Bat heard but no visual

Surveyor:	Graham Short	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Southern and Western Faces of B3 (Brick Barn)	
Time (hrs)	Species	Comment
21:35	Noctule	Bat heard but no visual
22:28	C.Pip	Bat heard but no visual

Surveyor:	Jamie Lee Hodgson	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Northern and Eastern Faces of B1 (Farmhouse)	
Time (hrs)	Species	Comment
21:10	Noctule	Bat heard but no visual
21:29	Noctule	Bat heard but no visual
21:34	Noctule	Individual bat observed commuting N-S
21:38	C.Pip	Bat heard but no visual
21:46	C.Pip	Bat heard but no visual- calls every 1-5 mins.
22:27	C.Pip	Bat heard but no visual

Surveyor:	Jan Short	
Equipment:	Batbox Duet, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Northern and Eastern Faces on B3 (Brick Barn)	
Time (hrs)	Species	Comment
21:35	Noctule	Bat hard but no visual
21:45	C.Pip	Bat observed passing along eastern trees
21:50-22:10	C.Pip	Bats observed foraging in/out of B4 northern garage (non-emergence), constant feeding calls recorded.

No bats were recorded emerging during the survey

Site:	Baileys Lane, Halewood		Start:	End:
Building/Structure/Tree:	Buildings	Precipitation:	<0.25%	0%
Visit No.:	2 of 3	Temperature:	18°C	17°C
Date:	19.08.24	Wind Speed Beaufort (0-12):	4	6
Lead Surveyor:	Ryan Whitmarsh	Cloud Cover (0-8):	8	8
Start Time:	20:14hrs			
Sunset:	20:30hrs			
End Time:	22:00hrs			



- = Surveyor positions
- ▲ = Camera positions

Surveyor:	Ryan Whitmarsh	
Equipment:	Batbox Duet, Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Southern and Western Faces of B1 (Farmhouse).	
Time (hrs)	Species	Comment
20:47	Noctule	Commuting, N-S single pass
21:52	C.Pip	Bat heard but no visual

Surveyor:	Graham Short	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Southern and Western Faces of B3 (Brick Barn)	
Time (hrs)	Species	Comment
		(No activity recorded during survey)

Surveyor:	Jamie Lee Hodgson	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Northern and Eastern Faces of B1 (Farmhouse)	
Time (hrs)	Species	Comment
21:26	C.Pip	Bat heard but no visual
21:52	Noctule	Bat heard but no visual

Surveyor:	Jan Short	
Equipment:	Batbox Duet, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	Northern and Eastern Faces on B3 (Brick Barn)	
Time (hrs)	Species	Comment
20:54	Noctule	Bat heard and observed, flying over barn
21:11	C.Pip	Bat heard but no visual

No bats were recorded emerging during the survey

Site:	Bailey's Lane, Halewood		Start:	End:
Building/Structure/Tree:	House	Precipitation:	0%	0%
Visit No.:	3 of 3	Temperature:	13°C	11°C
Date:	11/09/2024	Wind Speed Beaufort (0-12):	0	0
Lead Surveyor:	Mike Bazley	Cloud Cover (0-8):	6	7
Start Time:	20:50hrs			
Sunset:	21:20hrs			
End Time:	22:50hrs			



● = Surveyor positions

▲ = Camera positions

Surveyor:	Mike Bazley	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	NE Corner of House	
Time (hrs)	Species	Comment
		No bats heard or observed.

Surveyor:	Kate Bazley	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	NW Corner of House	
Time (hrs)	Species	Comment
		No bats heard or observed.

Surveyor:	Spare Camera	
Equipment:	Echo Meter Touch 2, Night Fox Whisker IR Camera, IR Light & Night Fox Swift 2 Pro IR Scope	
Position:	SW Corner of House	
Time (hrs)	Species	Comment
		No bats heard or observed.

No bats were recorded as emerging from the house observed.

4. Constraints and legislation

4.1 Constraints on survey information or equipment

It was considered that no constraints were applicable.

4.2 Potential impacts of development

All UK bat species and their roosts (occupied or unoccupied) are legally protected and demolition of a roost site is a criminal offence.

4.3 Legislation and Policy guidance

All bats are European Protected Species as defined by Bern and Bonn Conventions, Conservation of Habitats and Species regulations 2010, Habitats Directive Annex 4, some are also Annex 2.

All bats are protected by domestic legislation including Schedule 5 of the Wildlife and Countryside Act 1981 as amended, CROW and NERC Act 2006.

5. Recommendations and mitigation, compensation and enhancement measures

5.1 Further survey effort

In relation to the existing building and in accordance with the BCT good practice guidelines 2023 absence of bats has been established by means of the bat survey and therefore further surveys are not required for the current annual bat survey season.

5.2 Mitigation, compensation and enhancement measures

No bats were recorded in the building and therefore no measures are required to mitigate the effects of development on bats in this instance or to compensate for their presence. No roosts were identified during the survey and therefore no EPS license is required for development to commence.

Enhancement measures

There is no loss of any roost type on the site and no roosts were discovered on survey. The site is being used for regular commuting and feeding. Specific mitigation for loss of foraging and commuting routes is not required. Under the National Planning Policy Framework 2012 and the NERC Act 2006 there is a requirement to improve existing environment through enhancement.

The development proposals can maintain the ecological connection between the site and the locality. Where new planting is to be introduced native tree and shrub planting plan is preferred. Species of local provenance are recommended in preference to non-native, ornamental species. Planting of tree and shrub species that support a high insect biomass and provide a potential food source for bats throughout the bat activity period (spring to autumn) such as rowan, silver birch, alder buckthorn, dogwood, crab apple and wild plum are recommended..

Research has found that lighting can cause considerable disturbances to bats and may interfere with bat navigation during nocturnal commuting flights to suitable feeding sites. It is recommended by the Bat Conservation Trust and Institute of Lighting Engineers that lighting at ground level should be below 3 Lux (BCT & ILE 2008). The site was found to be largely unaffected by lighting and the redevelopment will seek to ensure that lighting will be appropriately

designed to ensure minimal light spill, particularly on the vegetated boundary of the site. This could be achieved by:

- Ensuring lights are only erected where they are needed, illuminated only during the time period that they will be used, and at levels that enhance visibility.
- Using narrow spectrum bulbs, to lower the range of species affected by lighting, and avoiding the use of light sources that emit ultraviolet.
- Ensuring that there are no bare bulbs or lights that point upwards.
- Ensuring that the spread of light is kept near to or below the horizontal plane.
- Reducing the height of the lighting columns since light at a low level reduces ecological impact.
- Ensuring only low level lighting that is as directional as possible is provided and that light emitted from these fixtures is below 3 lux at ground level.
- LED lighting, ideally amber LED (bat-lamps) that have a negligible UV component may be a preferred option since these show a low insect attractiveness comparable to low pressure sodium lamps and they are more directional, thus reducing light spill
- Where possible, external lights should comprise sensor activated lamps) so that lights are only operational when they are needed.
- Avoiding the illumination of habitat features used by bats, notably the boundary tree and linear hedgerows.

5.3 Mitigation licenses

In relation to the building there are no requirements for mitigation licensing as there is no requirement for anyone to carry out activity prohibited under wildlife legislation.

6. Summary

- 6.1 No bats were found to be roosting in the building. As a result, no measures are required to mitigate the effects of development on bats and there is no requirement for an EPS license (derogation or low impact) from Natural England in this instance for the currentt bat survey season.

Appendix 1 – still shots







