ASTUTE ECOLOGY

Ecological Consultants

BAT EMERGENCE & RE-ENTRY SURVEY

THE HOMESTEAD, HURST KNOWLE, KIRKLEES, WEST YORKSHIRE, HD5 8TQ

Report Reference: AE21.120.1
May 2021

Client	Frank Shaw Associates	
Site:	The Homestead, Hurst Knowle, Waterloo, Kirklees, West Yorkshire, HD5 8TQ	
Grid Ref:	SE 17234 15807	
Report Ref:	AE21.120.1	
Prepared by:	Clare Lusher BSc (Hons), MSc.	29/05/2021
Checked by:	Andy Bird BSc (Hons).	02/05/2021

Astute Ecology
47 Chadwick Ave
Derby
DE24 9DH
Head Office: 07870 266446
Email: info@astuteecology.co.uk
Website: www.astuteecology.co.uk

Contents

1 Summary

- Astute Ecology were commissioned by Frank Shaw Associates to undertake separate Bat Emergence and Re-Entry Surveys pertaining to a building located at The Homestead, Hurst Knowle, Waterloo, Kirklees, West Yorkshire, HD5 8TQ. The surveys were undertaken to confirm presence or likely absence of roosting bats within features of the building. The Emergence Survey was undertaken on the 10th May 2021 and the Re-entry Survey was conducted on 27th May 2021.

- No active bat roosts were recorded on or within the building during the surveys undertaken in accordance with Bat Conservation Trust Guidelines (BCT 2016). No significant foraging and commuting was recorded within the local area and activity was low.

- Due to the absence of any roosting bats recorded during the surveys, impacts to roosting bats as a result of the proposed plans are highly unlikely. A Natural England bat development licence is not required in order for the development works to proceed.

- No further surveys or mitigation are required.

- In the event, any evidence of a bat roost is found after this report, works must cease while the advice of Natural England or a suitably qualified and licensed bat ecologist is sought.

- All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally, or recklessly disturb a bat, or intentionally kill, injure, or take any bat.

2 Introduction

2.1 Astute Ecology were commissioned by Frank Shaw Associates to undertake two separate surveys comprising Dusk Emergence and Dawn Re-entry surveys on a building to confirm presence or likely absence of roosting bats located at The Homestead, Hurst Knowle, Waterloo, Kirklees, West Yorkshire, HD5 8TQ (hereafter referred to as "the site").

2.2 A Preliminary Ecological Appraisal (PEA) was previously undertaken at the site by Astute Ecology on the 19th August 2020 (Ref: AE20.179) which assessed the site as having 'Moderate Potential' to support roosting bats. Two separate dusk/dawn surveys were recommended (in accordance with BCT Bat Survey Guidelines (Collins 2016)) to confirm presence or likely absence of bats roosting within the building. Please refer to the PEA Report for full details.

2.3 This report details the outcome of the presence/absence survey of the site, including an analysis of the results to inform recommendations and mitigation, where relevant, in order to prevent any breaches in legislation relevant to protected British bat species.

2.4 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Astute Ecology. The surveys are based on information provided by our client, the development proposals, and the results of the desk study and our survey of the site. This report pertains to this information only. The legislation relevant to protected species within the United Kingdom is summarised within Appendix 2.

3 Methodology

3.1 Dusk Emergence Survey

Two separate Dusk Emergence and Dawn Re-entry surveys were undertaken by three experienced bat surveyors on the 10th May 2021 and 27th May 2021 in suitable conditions (Table 1 and Table 2). During the surveys, all elevations and aspects of the building considered to hold potential roost features were visually observed by surveyors whilst using handheld, static bat detectors to identify any bats potentially emerging from the building and to record activity, species and call type. An external inspection for further evidence of roosting bats was also undertaken during the visits. A map of surveyor and equipment positions is included within Appendix 3. The surveys were undertaken in accordance with BCT Bat Survey Guidelines (Collins 2016).

Table 1. *Survey conditions*

Date	**Sunset**	**Start**	**Finish**
10/05/2021 – Dusk Emergence	20:53	20:20	22:32
Weather:	Temperature:	13ºC	11ºC
	Humidity:	66%	73%
	Cloud cover:	2/8	2/8
	Wind:	None	None
	Precipitation:	None	None
Date	**Sunrise**	**Start**	**Finish**
27/05/2021 – Dawn Re-Emergence	04.49	03.00	05.06
Weather:	Temperature:	11ºC	12ºC
	Humidity:	72%	63%
	Cloud Cover	4/8	4/8
	Wind:	None	Light
	Precipitation:	None	None

3.2 Surveyors

Surveys undertaken by Clare Lusher BSc. (Hons.), MSc. Assistant Ecologist of Astute Ecology Ltd., David Gibbs BSc. (Hons.) Ecological Consultant of Astute Ecology Ltd. Bat Level 1 Licence Number 2017-32478-CLS-CLS and Andrew Bird BSc. (Hons.) Senior Ecologist of Astute Ecology Ltd. Level 2 Bat Licence Number: 2017-27866-CLS-CLS.

3.3 **Reporting**

This report was prepared in accordance with the Chartered Institute of Ecology and Environmental Management; Guidelines on Ecological Report Writing. CIEEM (2017).

3.4 **Equipment used:**

- 3 x Echometer Touch 2 Pro with iPad Mini 4
- 1 x Bat Box Duet
- Torches, Thermometers, and Hygrometers
- SMBAT4 FS Static Detector

3.5 **Limitations**

It should be noted that whilst every effort has been made to provide a comprehensive description and survey of the site, no investigation could ensure the complete characterisation and prediction of the natural environment during a 'snapshot' study.

3.6 **Report Lifespan**

Given the transient nature of the subject, we would consider the survey results contained to be accurate for 18 months.

4 Results

4.1 Survey Results

The positions of each surveyor, equipment and any observed bat movements over a map are provided within Appendix 3. There were no bat roosts identified during the survey and no bats were seen flying out of, or entering the building at any time during the survey. No significant foraging and commuting was recorded or associated with the site, and activity in the local area was very low with only individual species of Common Pipistrelle (*Pipistrellus pipistrellus)* (CP) recorded foraging and commuting within the local area. Tables 2 and 3 below summarise the results of the surveys undertaken.

Table 2: *Summary of Dusk Emergence Survey*

Time	Activity
	Activity in the local area was Low.
21:27	Single CP Call.
21:33	Single CP Call.
	No bats were seen emerging from the building at any stage.
	No evidence of any bat roosts was found during further inspection.

Table 3: *Summary of Dawn Re-Entry Survey*

Time	Activity
	Activity in the local area was Low.
04:05	Single CP Call
04:12	Single CP Call
	No bats were seen re-entering the building at any stage.
	No evidence of any bat roosts was found within the building during further inspection.

5 Evaluation and Recommendations

5.1 **Roosting bats**

- The bat activity surveys did not reveal any bats roosting within the building surveyed.

- There was no significant foraging or commuting associated with the site and activity within the local area was very low.

- Due to the unlikelihood of negative impacts to roosting bats, a Natural England bat development licence is not required for the development works to proceed. No further surveys or mitigation are required.

- In the event that any evidence of a bat roost is found after this report works must cease while the advice of Natural England or a suitably qualified and licensed bat ecologist is sought, for alternative mitigation can be arranged.

- Any new lighting should aim to avoid direct light spill towards any hedgerow and tree boundaries.

- To enhance roosting opportunities for bats within the local area, the following are recommended with any future proposed site buildings:

    - 1 x 1FF Schwegler Bat Box (or similar)

- The following measures could be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting (ILE/BCT, 2007; BCT 2014):
    - Direct any task lighting used during construction away from any vegetation.
    - Set any necessary security lighting on short timers with a sensitivity to large moving objects only.
    - Use hoods, cowls, or directional lighting to avoid light being directed at the sky or towards any boundary vegetation.
    - Limit lighting times to provide dark periods; and low-pressure sodium security lights with glass glazing are recommended, as these produce the least amount of UV light. Avoid white and blue wavelengths of the light spectrum. The brightness of the lamps should be kept as low as feasibly possible (ILE/BCT, 2007; BCT interim guidance 2014).

- All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended). It is an offence to damage or destroy any bat

roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally, or recklessly disturb a bat, or intentionally kill, injure, or take any bat.

Appendix 1. References

Bat Conservation Trust's '*Good Practice Survey Guidelines*' (Rev 2012).

Bell, S. McGillivary, D. (2006) *Environmental Law*. 6th ed. Oxford University Press.

Byron, H (2000) *Biodiversity and Environmental Impact Assessment: A Good Practice Guide for Road Schemes*. The RSPB, WWF-UK, English Nature and the Wildlife Trusts, Sandy.

CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester

Collins, J (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, (3rd edition), Bat Conservation Trust, London

Ethos Environmental Planning (2018) Bat Survey Report: Greenway Farm, Wick

Mitchell-Jones A.J. McLeish, A.P. (2004) *Bat Workers Manual* (3rd Edition). Joint Nature Conservation Committee.

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

National Planning Policy Framework, (2012). http://www.communities.gov.uk/publications/planningandbuilding/nppf

Treweek, J. (1999) *Ecological Impact Assessment*. Blackwell Science.

Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build*. Riba Publishing.

Appendix 2. Legislation, Guidance and Methodology

Roosting Bats
All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended).

It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally, or recklessly disturb a bat or intentionally kill, injure or take any bat.

Ecological Enhancement
In March 2012, the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - *opportunities to incorporate biodiversity in and around developments should be encouraged*.

Usually when reviewing how ecological enhancements can be implemented the Local Biodiversity Action Plan for the area is considered.

For new buildings guidance such as in the following will be used:
Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build*. Riba Publishing

Designated Protected Areas
Designated areas are Sites of Special Scientific Interest (SSSI) while others have been designated as having European protection status. Local authorities can also designate areas for nature conservation and in doing so may impose local authority byelaws to support local nature conservation objectives.

European designated status includes Special Protection Areas (SPAs) that preserve areas for birds and Special Areas of Conservation (SACs) which provides protection for habitats and the species which these habitats support. Laws stipulate that SSSIs, SPAs and SACs have to be maintained in a ‘favourable condition’ which requires efforts to preventing any potential impacts to these sites.

Appendix 3. Surveyor and Equipment Positions

Observed bat pass/activity during the dusk survey.