



Report Type: Phase 2 Surveys for Bats

Client Name: Filcher

Site Address: The Old Builder's Yard
Winterfield Lane
Weston Coyney
Staffordshire
ST3 5BG

Report Reference: P2 23-08 193.3

Date of Issue: 17th November 2023

Author: Ben Jones BSc (hons) MSc MCIEEM
info@greenscape.pm 07525 809943





Report Details	
Classification	Phase 2 Survey for Bats
Status	Final
Reference	P2 23-08 193.3

Version History	
Report Reference	Date of Revision
P2 23-08 193.1	25 th October 2023
P2 23-08 193.2	26 th October 2023
P2 23-08 193.3	17 th November 2023

Quality Assurance		
	Name	Date
Author:	B. Jones BSc(hons) MSc MCIEEM Senior Consultant	25 th October 2023
Reviewed by:	P. Marshall BSc(hons) MCIEEM PIEMA Principal Consultant	25 th October 2023
Amended by:	B. Jones BSc(hons) MSc MCIEEM Senior Consultant	17 th November 2023

Greenscape Environmental Ltd.

Registered Office: Long Acres, Lyth Bank, Shrewsbury, Shropshire, SY3 0BW

Company Reg number: 5364283

This report is the copyright of Greenscape Environmental Ltd. Any unauthorised reproduction or usage by any person without the specific authority of Greenscape is prohibited.

The report should be read in its entirety. Questions arising from the survey report should be directed to the author of the report who will be pleased to clarify any technical issues raised.

Whilst the surveyors make every reasonable effort, Greenscape Environmental Ltd cannot guarantee that all protected species have been identified and survey results are definitive. Many species are cryptic and transitional in habit.

Reports are considered valid for two years for planning purposes, after which time further survey information may be required.

Greenscape Environmental Ltd can provide advice and support for recommendations and planning conditions.

The use of this report or survey data for any form of formal submission to an NGO or other authority implicitly implies acceptance of the terms and conditions.



Table of Contents

1 EXECUTIVE SUMMARY.....	4
1.1 Purpose of the Report.....	4
1.2 Methodology	4
1.3 Key Impacts	4
1.4 Mitigation Measures	4
2 INTRODUCTION	5
2.1 Project Background	5
2.2 Purpose of the Report.....	5
2.3 Site Context and Location	5
3 METHODOLOGY & CONSTRAINTS.....	6
3.1 Bat Surveys.....	6
3.2 Date and Survey Conditions.....	6
3.3 Constraints.....	6
4 SURVEY RESULTS.....	7
5 DESCRIPTION OF PROPOSED DEVELOPMENT.....	9
6 IMPACTS, ENHANCEMENTS AND MITIGATION	10
6.1 Impacts	10
6.2 Mitigation	Error! Bookmark not defined.
7 CONCLUDING REMARKS.....	12
APPENDIX A – SURVEYOR DETAILS.....	13
APPENDIX B – METHODOLOGY	14
APPENDIX C – POLICY	15
APPENDIX D – BIBLIOGRAPHY	16

Table of Figures

Figure 4.1. Surveyor and IR camera locations.....	7
Figure 4.2. Trees from road	8
Figure 4.3. Trees from site	8
Figure 6.1. Example integrated bat box	10
Figure 6.2. Example woodcrete bat box: Schwegler 1FF	11

Table of Tables

Table 3.1. Survey conditions.....	6
Table 4.1. Survey results table.....	7
Table A.1. Details of surveyors' experience and licences held	13
Table B.1. Windspeed scale	14



1 Executive Summary

1.1 Purpose of the Report

Greenscape Environmental Ltd was commissioned by Mr Filcher to undertake phase 2 bat surveys of trees off Winterfield Lane as per the recommendations made in a preliminary survey report from Absolute Ecology, dated May 2019. These surveys are to provide supporting information for the planning application for an extension to the house and a barn conversion.

The survey report aims to address condition 7 of the planning permission which required further activity surveys on the roadside trees.

1.2 Methodology

The single bat activity survey was conducted in August 2023 following best practice guidance.

1.3 Key Impacts

No bats were seen to roost in the trees separating the site from the road. Activity was limited to foraging bats along the road throughout the survey, all having come from off-site to the east. Day roosts and, in particular, tree roosts are often transient and short-lived, and these negative results do not rule out the future use of potential roost features.

Mitigation Measures

Whilst the trees did not support roosting bats there is still a chance of them supporting nesting birds.



2 Introduction

This report has been compiled by Ben Jones BSc (hons) MSc who has 8 years' experience conducting ecological appraisals. It has been reviewed in line with Greenscape's Quality Management System.

For full details of surveyors and licences please see Appendix A.

2.1 Project Background

Greenscape Environmental Ltd was commissioned by Mr Filcher to conduct a phase 2 bat surveys to address condition 7 of the outline planning permission SMD/2020/0266, determined in November 2020.

Condition 7 states:

7. Prior to the submission of "reserved matters" particulars and details, further bat presence/absence surveys of the two trees on the western boundary shall be undertaken and accompany any full or reserved matters applications. The findings and recommendations of such a report shall inform and be incorporated into the design of the dwellings.

Reason: To protect and enhance habitats for protected species.

2.2 Purpose of the Report

This report aims to:

- Identify the key ecological constraints to the proposed development relating to priority habitats and species and protected species (HMSO, 1981).
- Inform planning to allow significant ecological effects to be minimised or avoided where possible.
- Allow any necessary mitigation or compensation measures to be developed following the mitigation hierarchy.
- Identify the opportunities offered by a project to deliver ecological enhancement (Ministry of Housing, Communities and Local Government, 2021).
- Provide information to assist landowners with avoiding committing legal offences in relation to wildlife (HMSO, 2000)

2.3 Site Context and Location

The site is located east of Stoke-on-Trent, OS grid reference SJ93784491. It is set in a rural environment surrounded by open fields and scattered dwellings, with the main urban land being to the south. There is connectivity to the surrounding countryside via field boundary hedgerows and the trees on the sides of Winterfield Lane.



3 Methodology & Constraints

3.1 Bat Surveys

Phase 2 surveys were conducted to confirm the presence/absence of any roosts, roost characterisation, access points and significance of the roosts. Detailed methodology can be found in Appendix B.

3.2 Date and Survey Conditions

Table 3.1. Survey conditions

Date	Time Start – End (Sunset Time)	Equipment Used	Weather (Start/End)	
22/08/2023	20:05-22:00 (20:21)	Anabat Scout, Wildlife Acoustics Echometer Touch 2 Pro, Skywatch Meteos anemometer, Sony FDR-AXAX53 nightshot camera with 2x Nightfox XC5 IR torches, red LED torch	Temp(°C): Cloud(%): Wind(BFT): Peak gust: Rain:	17/14 0/0 0/0 0.8 0/0
Comments	One surveyor used: B Jones Constraints: None			

3.3 Constraints

The identification of calls and species using sonogram analyses are dependent on the clarity of the sonogram recording, which may be affected by the distance from the bat and background noise. Species of *Myotis* bats are identified to genus level on the basis of the inherent difficulty in distinguishing between species from their echolocation calls.

Automatic ID bat detectors were used on these surveys, and these have limitations as reported in Reason, Newson & Jones (2016). To eliminate this constraint, sonograms were manually verified.



4 Survey Results

Table 4.1. Survey results table

Date	Time Start – End	Species and Numbers	Roost Type	Structure	Roost Location	Access Points	Dimensions of roost
22/08/2023	20:05 – 22:00	--	--	--	--	--	--
Notes:	The first bat seen was a common pipistrelle at 20:51, 46 minutes after sunset. This flew along the lane from the east and continued to forage up and down the lane throughout the entirety of the survey. No other species were recorded on this survey. No roosts were identified in trees bordering the site.						

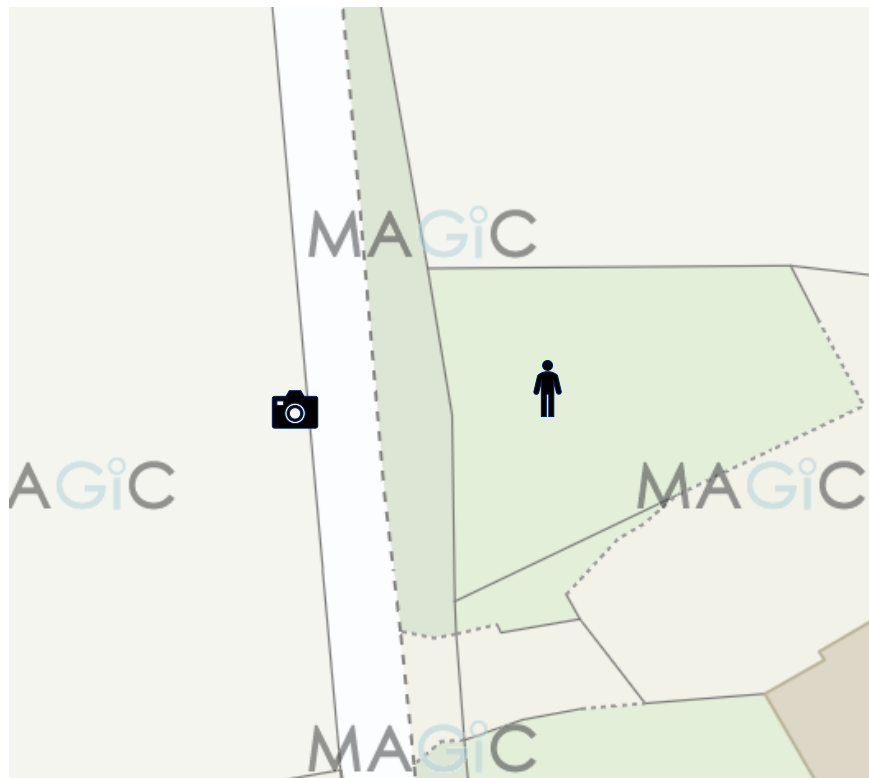


Figure 4.1. Surveyor and IR camera locations



Figure 4.2. Trees from road



Figure 4.3. Trees from site



5 Description of Proposed Development

The current plans are for a residential development of land to the east of Winterfield Lane.

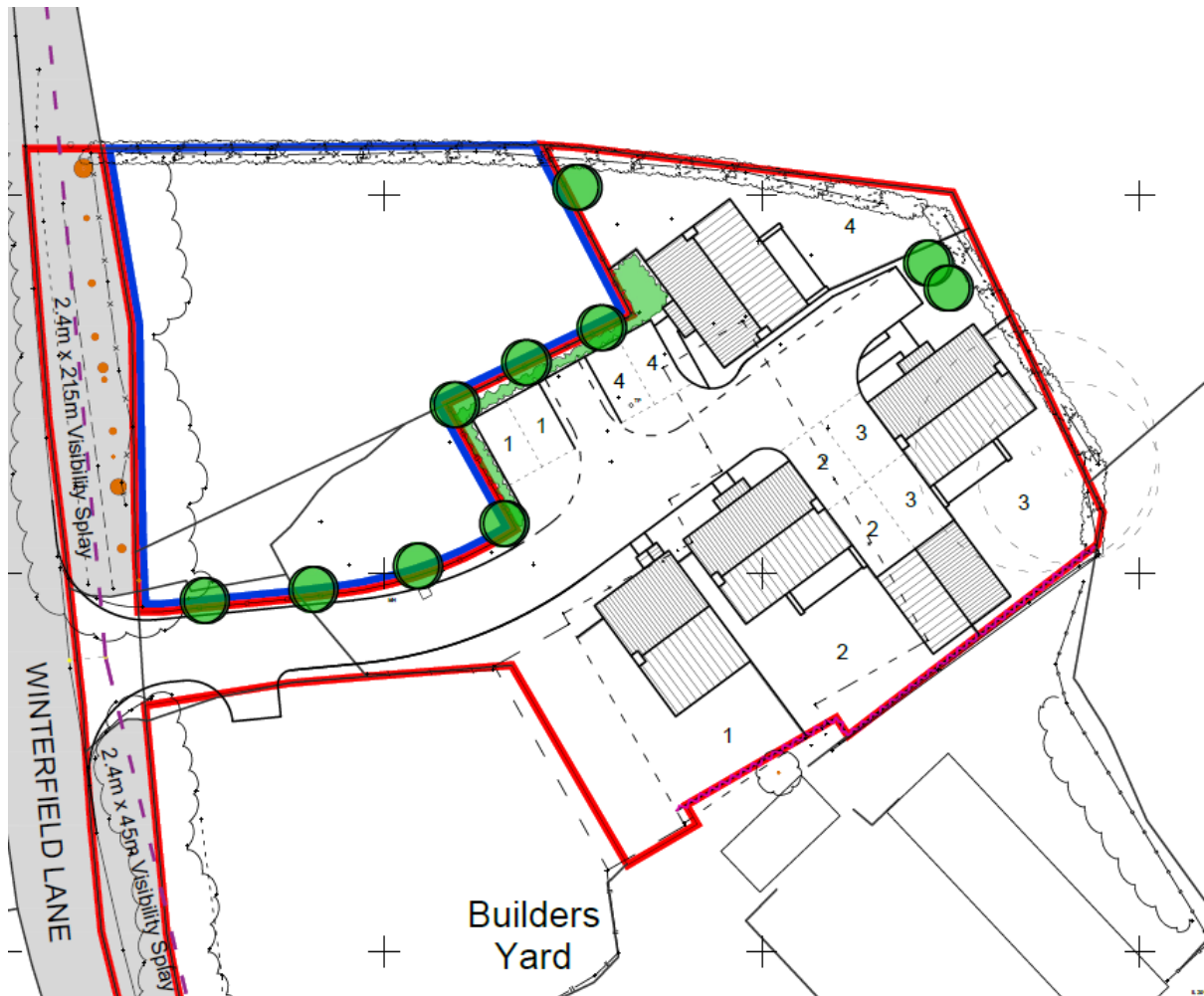


Figure 5.1. Proposed site plan



6 Impacts, Enhancements and Mitigation

6.1 Impacts

The only bat activity was of foraging bats which is unlikely to be affected by any part of the development as proposed.

The trees do have cracks and damages that present low value potential bat roost features however, and the negative results of this survey do not preclude the future use of such features.

Work can be conducted without a licence from Natural England or without any negative impact on potential bat roost features.

Bat activity was all on the road side of the tree line so any exterior lighting on the new houses will not impact flight lines or commuting/foraging value.

6.1.1 Enhancement

It is recommended that permanent provision be made for roosting opportunities for bats with the inclusion of integrated bat boxes in the new dwellings. These will be erected at a height of 3-4 m and in a southerly, westerly or easterly facing direction.

Enclosed Bat Box (B and C)

- Designed specifically for the pipistrelle bat
- Available in all brick types
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work



Bat Box B



Bat Box C

Eco Habitats for Bats	Sizes (mm)	Durability
Bat Box Type A	215 x 65	F2 S2 – Fully Frost Resistant
Bat Box Type B	215 x 215 or 215 x 290	F2 S2 – Fully Frost Resistant

Figure 6.1. Example integrated bat box



Filcher

If an integrated box is not possible to include in the building during renovation, provision will be made elsewhere with woodcrete bat boxes suitable for day roosts. These will be erected at a height of 3-4 m and in a southerly, westerly or easterly facing direction.



Figure 6.2. Example woodcrete bat box: Schwegler 1FF

6.1.2 Monitoring

Failing boxes or enhancements will be replaced at the cost of the developer if deterioration or damage is noted within five years post-development.



7 Concluding Remarks

The survey has focussed on the potential habitats or protected species to be damaged or destroyed as part of this development.

No bat roosts were identified in the trees on the roadside, but surveys on trees are unlikely to identify transient roosts. Potential roost features may still be used on a short-term basis over summer. The trees do not have features that might support hibernating bats.

The works as proposed are highly unlikely to impact any bats in the area.



Appendix A – Surveyor Details

Table A.1. Details of surveyors' experience and licences held

Name	Membership of associations/ experience	Licenses
Ben Jones BSc(hons) MSc	Senior Consultant MCIEEM Ben has a degree in Marine and Freshwater biology and a Master's degree in "Managing the Environment". He has 8 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales. As a member of the CIEEM he is bound by professional conduct.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2017-29112-CLS-CLS GCN - 2016-25209-CLS-CLS <u>Wales:</u> Bats - S091847/1 GCN - S091242/1
Logan Maggs BSc(hons)	Senior Consultant Logan has a degree in Conservation and Land Management. He has over 10 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2016-24901-CLS-CLS GCN - 2017-29218-CLS-CLS <u>Wales:</u> Bats - S091096/1



Appendix B – Methodology

A phase 2 bat activity survey was conducted to reinforce the findings using frequency division bat detectors (Anabat Scout, Wildlife Acoustics Echo Meter Touch), and a Sony FDR-AX53 night-sight camera with a pair of Nightfox XC5 infrared torches. The footage was analysed by an experienced bat ecologist.

The survey was conducted when the weather conditions were suitable for bat activity, i.e. when the ambient temperature exceeded 10°C at sunset and when there was little or no rain. Dusk surveys were begun approximately 15mins prior to sunset and continued for 90-120mins following sunset depending on visibility and site conditions. Weather conditions are recorded at the start and end of each survey, noting temperature in °C, cloud cover as a percentage, windspeed in Beaufort (BFT), and precipitation.

Table B.1. Windspeed scale

Wind Force	Description	Speed mph (kph)	Specifications
0	Calm	<1 (<1.6)	Smoke rises vertically
1	Light Air	1-3 (1-5)	Direction shown by smoke drift but not by wind vanes
2	Light Breeze	4-7 (6.5-11)	Wind felt on face; leaves rustle; wind vane moved by wind
3	Gentle Breeze	8-12 (12-19)	Leaves and small twigs in constant motion; light flags extended
4	Moderate Breeze	13-18 (20-29)	Raises dust and loose paper; small branches moved

Activity surveys are conducted to establish the presence of bats within a structure, what species they are, approximately how many are present, and if possible, where they are exiting a roost.

Bats were identified from the characteristic echolocation calls using appropriate computer sonogram analysis software (Reason, et al., 2016).



Appendix C – Policy

The following areas of policy and legislation are of relevance to ecology and provide context to the surveys conducted. Findings presented in this report are in line with the following:

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – as listed in:

- Schedule 2. European protected species of animals

The Wildlife and Countryside Act (1981) – as listed in:

- Schedule 5. Protected animals

Countryside and Rights of Way Act (2000)

Environment Act (2021) – Part 6 – Nature and Biodiversity

Natural Environment and Rural Communities (NERC) Act (2006)

National Planning Policy Framework (2018)

Policy 15 – Conserving and Enhancing the Natural Environment

Biodiversity 2020 – A strategy for England's wildlife and ecosystem services (2011)

ODPM Circular 06/2005: Biodiversity and Geological Conservation

Bats

All bat species are protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- Deliberately capture or kill any wild animal of a European Protected Species.
- Deliberately disturb any such animal.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European Protected Species, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine or to both.

Seven bat species are on the UK Biodiversity Action Plan and are listed as Species of Principal Importance under the provisions of the Natural Environment and Rural Communities (NERC) Act 2006. The National Planning Policy Framework (NPPF) states that to minimise impacts on biodiversity and geodiversity, *"planning policies should... promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations"*.



Appendix D - Bibliography

HMSO, 1981. *Wildlife and Countryside Act 1981*. London: HMSO.

HMSO, 2000. *Countryside and Rights of Way Act 2000*. London: HMSO.

Ministry of Housing, Communities and Local Government, 2021. *National Planning Policy Framework 2019*. London: Ministry of Housing, Communities and Local Government.

Reason, P., Newson, S. & Jones, K. E., 2016. *Recommendations for using automatic bat identification software with full spectrum recordings*. s.l.:Bat Conservation Trust.