

# LHB Ecology

## Bat Emergence Surveys

Site: 14 Oving Terrace, Oving Road, Chichester, West Sussex

PO19 7ES

Client: Nemesia Atkins

Report Author: Joe Slade BSc (Hons) MRSB, Senior Ecologist

Report Version and date: V1 18/08/23

Limitations

This report has been prepared exclusively for the use of the above-named client or their agents. Site assessment and reports have been carried out for the client in accordance with written agreement and with the diligence and skills that are typical of an ecological consultant.

The conclusions and subsequent recommendations contained in this report are partly based upon information provided by third parties. Information obtained from third parties has not been independently verified by LHB Ecology.

Any third-party usage of the report will require prior written agreement from LHB Ecology.

Any assessments made are based upon current site condition with the assumption that the site will continue to be used for the current purpose without significant change prior to any development.

Guidelines

This assessment has been designed to meet:

- Bat Conservation Trust (2016): Bat Surveys for Professional Ecologists — Good Practice Guidelines, 3rd edition; and
- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

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## 1.0 Executive Summary

### 1.1 Summary

- 1.1.1 LHB Ecology undertook a Bat Emergence Survey (BES) at 14 Oving Terrace, Oving Road, Chichester, West Sussex PO19 7ES (hereinafter referred to as 'the site') to determine a presence or likely absence of roosting bats. The survey was completed on 1 August 2023.
- 1.1.2 The site comprises an end of terrace dwelling and a garden bounded by residential properties and gardens and a road.
- 1.1.3 The proposed development involves two-storey rear and side extension of the existing dwelling.
- 1.1.4 **The BES concludes that there is a likely absence of bat roosts in building B1. No further surveys or European Protected Species Mitigation Licence is required to enable the proposed works to proceed lawfully.**

See section 5.0 Conclusions, Impacts and Recommendations for full evaluation.

## 2.0 Introduction and Background

### 2.1 Background

- 2.1.1 LHB Ecology undertook a Bat Emergence Survey (BES) at 14 Oving Terrace, Oving Road, Chichester, West Sussex PO19 7ES (hereinafter referred to as 'the site') to determine a presence or likely absence of roosting bats. The survey was completed on 1 August 2023.
- 2.1.2 The BES was informed by the Bat Conservation Trust publication: *Bat Surveys – Good Practice Guidelines* (Collins, J. 2016).
- 2.1.3 A Preliminary Roost Assessment (PRA) survey was carried out at the site on 19 July 2023 by LHB Ecology which revealed the presence of external features that could support roosting bats. The PRA report recommended one BES to confirm a presence/likely absence of roosting bats in building B1.

### 2.2 Project Description

- 2.2.1 The proposed development involves two-storey rear and side extension of the existing dwelling.

### 2.3 Site Context

- 2.3.1 The site is centred on National Grid Reference SU 8735 0487 and has an area of approximately 0.03 ha. There is one end of terrace dwelling (B1) that is bounded by residential properties and gardens and a road. A site location plan is provided in section 4.3.

### 2.4 Scope of the Report

- 2.4.1 This report describes the findings of the survey including any observed bat activity and roost locations, if present. Survey data gathered from the BES and any previous ecological surveys was used in this report to inform an assessment of the impacts on bats and inform mitigation and enhancement measures. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve planning or other statutory consent, and to comply with wildlife legislation.
- 2.4.2 The aim of the assessment was to characterise any roosts present by recording bat species and numbers, roost locations and access points, and to determine how bats may use the site and surrounding habitats, following good practice guidelines. To achieve this, the following steps have been taken:
- A desk study has been carried out, including the use of freely available resources such as Google Earth and the MAGIC database.
  - A field survey has been undertaken, including an external and internal inspection of the building.
  - An assessment of likely impacts on any known roosts has been provided, based on the development proposals.

- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing (EPSML) if appropriate.

2.4.3 A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2 (where available) and a summary of relevant legislation can be found in Appendix 3.

## 2.5 Legislation

2.5.1 The purpose of the survey was to identify any ecological constraints, specifically bats, to the proposed works. Bats are protected by the following legislation:

- The Wildlife and Countryside Act 1981 as amended
- The Natural Environment and Rural Communities Act 2006
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

2.5.2 Further details on the above legislation and the effects of developments are provided in Appendix 3.

2.5.3 A European Protected Species Mitigation Licence (EPSML) may need to be obtained prior to development in the event of the proposed works having an impact on bats and their roosts. Further consideration of the requirement for an EPSML is provided in section 5.3.

## 3.0 Methodology

### 3.1 Desk Study methodology

3.1.1 A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth
- Designated sites, habitat and granted European protected species licencing data held on magic.gov.uk
- Information on the surrounding area using OS Opendata 2022

### 3.2 Site Survey Methodology

3.2.1 The survey was undertaken by Joe Slade BSc (Hons) MRSB, senior ecologist (Natural England bat licence number: 2017-32515-CLS-CLS), along with James Wheeler, assistant ecologist with over four years' experience of conducting these surveys. The survey methods were informed by the recommendations within the PRA survey report (LHB Ecology, 2023). The survey requirements from the PRA survey report are outlined in Table 3.2 below.

Table 3.2: Recommendations from the PRA survey report (LHB Ecology, 2023)

| Ecological Receptor | Recommendations |
|---------------------|-----------------|
|                     |                 |

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bats | <p>The building B1 has “low habitat value” (Collins, 2016) for supporting roosting bats. This is due to gaps being present around the eaves, beneath raised roof tiles and a vent in the southeastern gable. In addition, there is poor habitat connectivity between the site and nearby bat foraging habitat which reduces the likelihood of bat roosts being present in the noted external features.</p> <p>One dusk emergence survey should be undertaken to suggest the presence or likely absence of roosting bats. The survey should be undertaken during the optimal bat survey season (May to August). Two surveyors should be utilised, to provide sufficient coverage of all elevations of the building.</p> |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

3.2.2 The survey was completed during optimal weather conditions when bats are most active i.e. when temperatures were above 10°C, with no heavy rain or strong winds, as these adverse weather conditions can impact upon bat emergence/re-entry times and activity. Experienced surveyors were positioned around the building on each survey ensuring that all elevations and roof sections with suitable roosting features could be clearly observed. Particular attention was paid to the areas of the building identified as providing suitable access points to bat roosts. The location of each surveyor during the survey is shown in Appendix 1. Each surveyor was assigned an area of the building to observe for the duration of the survey. Surveyors used heterodyne and frequency division bat detectors, and Wildlife Acoustics Echo Meter Touch (EMT) detectors. Bat echolocation calls recorded during the surveys were analysed using Wildlife Acoustics sound analysis software Kaleidoscope V5.4.8 when required. The EMT auto ID function for bat species is not 100% accurate and further post-survey sound analysis is often required to confirm species recorded during the survey. Surveyors also used head torches and a survey record sheet for recording all activity observed during the survey. Each surveyor was also provided with a handheld radio for communication between surveyors to assist with confirming ambiguous bat activity e.g. a bat emergence or a bat passing over the building. In addition, a Nightfox Red infrared camera was used as a Night Vision Aid (NVA) to supplement the survey effort. In accordance with the latest bat survey guidelines (Collins, J. 2016) dusk emergence surveys commenced 15 minutes before sunset and continued for 1½ - 2 hours after sunset – depending upon bat activity and surveyor visibility.

### 3.3 Limitations – evaluation of the methodology

- 3.3.1 The survey was completed in line with best practice guidance to confirm presence or likely absence of bat roosts and characterise any roosts present. Survey data was collected across a period within the bat activity season and therefore the findings are indicative of the period in which the survey was completed. The use of the site by bats at all times cannot be established based on this information.
- 3.3.2 There were no limitations to the survey.

## 4.0 Results and Evaluation

### 4.1 Survey Results

4.1.1 The results of the dusk emergence survey are provided in the table below.

Table 4.1: Bat Emergence Survey Results 1 August 2023

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                              |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Date</b>                                        | 01/08/2023                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                              |
| <b>Start and End Times</b><br>(sunset time: 20:49) | <b>Start:</b> 20:15                                                                                                                                                                                                                                                                                                                                                                                                               | <b>End:</b> 22:00                                                                                            |
| <b>Weather Conditions</b>                          | Temp: 19°C<br>Relative Humidity: 90%<br>Cloud Cover: 80%<br>Wind: 2 mph<br>Precipitation: None                                                                                                                                                                                                                                                                                                                                    | Temp: 18°C<br>Relative Humidity: 95%<br>Cloud Cover: 80%<br>Wind: 2 mph<br>Precipitation: Light rain showers |
| <b>Surveyor and Location</b>                       | <p><b>Surveyor 1:</b> Joe Slade – over 9 years' experience of conducting bat surveys (observing the northwestern and southwestern elevations and roof structure of B1).</p> <p><b>Surveyor 2:</b> James Wheeler – over 4 years' experience of conducting bat surveys (observing the southeastern and southwestern elevations and roof structure of B1).</p> <p>Infrared NVA: recording the southeastern roof structure of B1.</p> |                                                                                                              |
| <b>Building Reference</b>                          | <b>Observations</b>                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |
| B1                                                 | <p>No bat activity was observed.</p> <p>A review of the infrared footage captured on the NVA revealed no bat emergences from B1.</p>                                                                                                                                                                                                                                                                                              |                                                                                                              |



## 5.0 Conclusions, Impacts and Recommendations

### 5.1 Informative Guidelines

5.1.1 In the event of bat roosts being present, the bat surveys completed at the site and their findings are used to characterise the roosts based on the species and number of bats recorded, among other biotic and abiotic factors. Appropriate mitigation and compensation can be designed based on the findings of the surveys. Additionally, the survey findings can inform a European protected species mitigation licence (EPSML) application to Natural England, if required. The Bat Mitigation Guidelines (English Nature, 2004) and the Bat Conservation Trust publication Bat Surveys for Professional Ecologists – Good Practice Guidelines (Collins, J. (Ed) 2016) define types of bat roosts as follows:

- *Maternity roost*  
A place where breeding females gather to form a nursing colony from May onwards. Maternity roosts typically disperse between August and September.
- *Day roost*  
A place used to rest during the day. Used by a single bat or small group of bats.
- *Night roost*  
A place used to rest during the night. Night roosts can be used on occasion by a single bat or by an entire colony.
- *Mating roost*  
A place used by male bats in late summer to winter to attract females.
- *Satellite roost*  
A place used by breeding females which is as an alternative to the main maternity site.
- *Transitional roost*  
A place used either prior to or immediately after hibernation. Used for a few days or up to several weeks.
- *Hibernation roost*  
A place used by hibernating bats, typically from October to March. Ideally, these sites have consistent low temperatures and high humidity.
- *Feeding roost*  
A place which is sheltered where a single bat or small number of bats may feed and rest temporarily at night.
- *Swarming site*  
A place where a large numbers of bats of different species gather. This occurs between August and November, around caves and mines.

### 5.2 Conclusions and Impact Assessment

5.2.1 The BES conclude that there is a likely absence of bat roosts in building B1. No bats were seen emerging or re-entering the building during the survey. No further surveys or European Protected Species Mitigation Licence is required to enable the proposed works to proceed lawfully.

5.2.2 With a likely absence of roosting bats present within building B1 there are not anticipated to be any impacts on roosting bats as a result of the proposed works.

### 5.3 Recommendations

5.3.1 The following recommendations are made based on the findings during the BES and any previous surveys.

| <b>Ecological Receptor</b> | <b>Recommendations</b>                                                                                                                                                                                                                                   |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bats                       | No further surveys required.                                                                                                                                                                                                                             |
|                            | <i>Enhancements</i><br><br>Garden areas can be enhanced for foraging bats by planting plants that attract bat prey species. See the recommended Bat Conservation Trust guidance at: <a href="#">Gardening for bats - Advice - Bat Conservation Trust</a> |

## 6.0 Bibliography

- BS 42020, Biodiversity – Code of practice for planning and development (2013) <http://www.bsigroup.com/LocalFiles/en-GB/biodiversity/BS-42020-Smart-Guide.pdf>
- Chase Ecology (2023) Preliminary bat roost assessment – 52 York Road
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3<sup>rd</sup> edition, Bat Conservation Trust, London.
- Google Earth (2023)
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- HMSO: Wildlife and Countryside Act 1981 (as amended) <http://jncc.defra.gov.uk/page-1377>
- JNCC (2004) Bat Workers Manual, 3rd Edition.
- MAGIC database (2023) <http://www.magic.gov.uk/MagicMap.aspx>
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- National Planning Policy Framework, 2021 <https://www.gov.uk/guidance/national-planning-policy-framework>

# Appendix 1 – Bat Emergence Survey Map



### Appendix 2 – Proposed plan



## Appendix 3 – Legislation

### 6.1 Legal protection

#### The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the Birds Directive). The WCA 1981 gives protection to native species.

#### 6.1.1 Bats

Bats are afforded the following additional protection through Schedule 5 of the WCA 1981:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species
  - Damage or destruction of a breeding site or resting place

#### Significance for developments:

Works which are liable to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Mitigation Licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures.

### 6.2 The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

### 6.3 Exceptions and Licensing

A European Protected Species Mitigation Licence (EPSML) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those

activities mentioned above (e.g. survive, breed or rear young). Licences permit otherwise unlawful activities and can only be granted for certain purposes. An EPSML also enables appropriate mitigation measures to be put in place and their success to be monitored. Important foraging areas or commuting routes that are associated with roosting sites can be regarded as being afforded protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

- include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- scientific and educational purposes,
- ringing or marking
- conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

## 6.4 Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird

### Significance for developments:

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests.

The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

## **6.5 National Planning Policy (ENGLAND)**

### **National Planning Policy Framework**

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

### **The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty**

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.



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