



Bat Emergence Report

Red House, Staplefield, RH17 6ET

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing. Whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date. This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated, only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by David Jenkins Design to undertake a three bat emergence surveys at Red House, Cuckfield Road, Staplefield, RH17 6ET, hereafter referred to as the 'site' (Figure 1). This follows a Preliminary Ecological Appraisal conducted by The Ecology Partnership in May 2024, which determined the building to support roosting bats.
- 1.2 The site supports a single residential building and garden located within a rural area (TQ2792027907). Adjacent to the northern and eastern boundaries is an arable field, and residential development borders the western boundary. The wider area is dominated by arable fields, and parcels of woodland. The aerial photography overleaf (Figure 1) shows the site and its immediate surroundings, highlighting the surveyed building.



Figure 1: Site boundary (red), building surveyed (yellow).

Proposed Development

- 1.3 The current proposals for development are as yet, unknown.

Legislation

- 1.4 All UK bat species and their roosts are protected by law within The Wildlife and Countryside Act 1981 and the Habitats Directive Annex IV. This means it is a criminal offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time;
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

2.0 Methodology

Dusk Emergence Surveys

- 2.1 The PEA recorded multiple external PRFs, within the residential building, and internal access revealed a brown long eared bat roosting within the loft void. Therefore, the building was considered to support a bat roost and required three emergence/re-entry surveys.
- 2.2 This emergence surveys were carried out on 16th May 2024, 5th June 2024 and 26th June 2024. The surveys started 15 minutes before sunset and were completed 90 minutes after sunset. The survey followed Bat Conservation Trust guidelines (BCT 2023). Surveyors were positioned to cover all aspects of the buildings and areas of interest (Figure 2). An Infra-Red (IR) camera (Canon XA20) with an IR lamp (Dedolight iRedZilla) was utilised during the surveys to support surveyors. All surveyors were equipped with an Echo Meter Touch 2 Pro. Surveyors included Natasha Wilson BSc (Hons), Digby Hayden BSc (Hons), Finn Young BSc (Hons), Izabela Kennedy MSc, Antony Owers BSc (Hons) and Steve Preston.



Figure 2: Surveyor positions (orange stars) and IR camera position (yellow stars)

3.0 Results

Dusk Emergence Survey

16th May 2024

- 3.1 Sunset was at 20.48, with a large cloud cover and a temperature of 13°C. No bats were recorded emerging during the survey. The first bat, a common pipistrelle, was recorded at 21.09. During the survey occasional bat activity was recorded over the house and garden. Common pipistrelles were foraging during the survey, approximately 6 common pipistrelles flew through at 21.54 and others were also heard and not seen. A brown long eared bat was also recorded at 21.50 but was not seen. Species recorded included common pipistrelles, soprano pipistrelles, and brown long-eared bats.

5th June 2024

- 3.2 Sunset was at 21:10 with clear skies. The survey temperature started at 13°C. No emergences were witness during the surevy. The first bat recorded was at 21:22 and was

a noctule foraging east to west in front of the house. During the survey occasional bat activity, dominated by common pipistrelles was recorded over the house and garden.

26th June 2024

- 3.3 Sunset was at 21:19 with clear skies and no wind. The survey temperature started at 19°C dropping to 18°C at the end of the survey. A single brown-long eared bat was recorded emerging during the survey at 21:53 from the top northwestern hip of the roof (Figure 3). The direction and position of surveyors during this survey are below (Figure 4). The first bat recorded was at 21:20 and was a noctule commuting east to west over the site. During the survey occasional bat activity by noctules and common pipistrelles were recorded over the house and garden.



Figure 3: Emergence at 21.53



Figure 4: Emergence and surveyor locations 26th June 2024

4.0 Discussion

4.1 A singular bat was recorded emerging from the building during the dusk emergence survey on the 26th June 2024 (Figure 4). Due to the low numbers of bats recorded, it is considered that the loft void of the house is used as an opportunistic/day roost by a brown long eared bat. The proposals for the site are as yet, unknown. As such, the works to the building and loft void must be undertaken under a low-impact licence from Natural England.

4.2 With regards to the licence, the following methods are considered to be implemented;

- Establish alternative roosting provision such as the CJ Wildlfe Bat Boxes or similar box on any of the retained mature trees on site, prior to any works as mitigation;
- Conduct a Tool Box Talk (TBT) to all team members on site with regards to the presence of bats using the building, bats legal protection, measures that will be

undertaken to ensure that bats are not harmed, good working practises, licensable activities and what to do if a bat is found;

- Once this TBT has been conducted then works to the building can commence under direct supervision of a registered consultant (RC) / accredited agent;
- The tiles of the building will be hand removed. All tiles will be removed by hand individually, with the tiles being turned prior to stacking. If a bat is found, then the RC will gently move the bat to a bat box on site;
- Once the tiles of the building have been removed, other features such as the felt lining will be removed, again under direct supervision from the RC;
- Any soffit boards will finally be removed using hand tools and checked gently before final removal. All works to be supervised by the RC;
- Once the RC has rechecked the whole of the building and is happy that all licensable activities to the building have occurred (i.e. the features which bats are using for roosting have been removed), then the remaining works to the buildings can occur without further supervision;
- It is considered that this process is likely to take between 1 to 2 days.

Licence Application

4.3 The timing of the works with regards to the licence requirements is as follows:

- A licence application will be made following planning permission being granted;
- Furthermore, any conditions which are pertinent to ecology will be discharged before the low impact bat licence will be applied for. An update survey must occur (walk over or internal survey) in the last 3 months prior to works;
- Bat boxes are to be established on mature trees;
- Once the licence is issued (the licence should take 10 working days for issue), all licensable works can commence. All licensable works (removal of tiles etc) should take in the region of 1 or 2 days;
- Works under a low impact licence have no seasonal restrictions

Compensation/ Mitigation Strategy

4.4 To compensate for the loss of the day roosts as a result of the proposals, suitable replacement roosts will be required. As proposals are yet to be confirmed, exact placement

and specifications may be subject to change, but the following are all recommended to be included.

- 4.5 It is recommended that a large chamber bat box should be installed within the site boundary, in order to provide a temporary roost for any bats found during the tile strip, as well as replacement roost to mitigate for the loss of the existing roost. Boxes should ideally be exposed to the sun for most of the day, so southern and western aspects are preferable, and should be hung as high as possible (around 5m above ground).

Recommended boxes include:

- Large Multi Chamber WoodStone Bat Box – This is a multipurpose box designed for larger colonies and a range of bat species including pipistrelles, noctules and brown long-eared bats. These should be hung on mature trees around the site (Figure 5).
- Vivara Pro WoodStone Bat Box – A general purpose bat box that supports a range of species (Figure 5). These can be hung on trees in a variety of heights and aspects in order to provide a variety of micro-climates.



Figure 5: Vivara Pro WoodStone Bat Box (left) and Large Multi Chamber WoodStone Bat Box (right)

- 4.6 Any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area as well as on site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels which can affect both their roosting behaviour as well as their foraging behaviour. This needs to be taken into account, with a sympathetic lighting scheme for the development

4.7 Recommendations include:

- Lighting should only be installed if there is a significant need;
- Lighting should be avoided near woodland and tree-lines, with light angled away from these areas, bats use linear features such as hedgerows to commute across the landscape to forage;
- Lights should have focussed luminance on their target area, preventing light spill and pollution into other areas of the site and local area.
- Dark buffer zones can be used as a good way to separate habitats or features from lighting by forming a dark perimeter around them. Buffer zones rely on ensuring light levels within a certain distance of a feature do not exceed certain defined limits;
- Light levels should be kept low. All luminaires should lack UV elements when manufactured and metal halide, fluorescent sources should not be used. LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming.

4.8 Sweet nectar and protein-rich pollen, especially night-scented flowers, are bait to encourage insects, a food source for bats. These species should be incorporated into the development where possible:

- Evenings primrose (*Oenothera biennis*)
- Field poppies (*Papaver rhoeas*)
- Knapweed (*Centaurea sp.*)
- Night-scented stock (*Matthiola longipetala*)
- Red campion (*Silene dioica*)
- Honeysuckle (*Lonicera periclymenum*)
- Sweet williams (*Dianthus barbatus*)
- Angelica species
- Wisteria (*Wisteria floribunda*)
- Lavenders (*Lavandula sp*)

5.0 Conclusions

- 5.1 As part of the PEA, the building was assessed as having 'high' bat potential, owing to the presence of a brown long eared bat in the loft void during an internal investigation and due to observations of loose, hanging and fallen tiles potentially providing access for small crevice dwelling bats.
- 5.2 The Ecology Partnership undertook three emergence surveys in May 2024 and June 2024, which confirmed a single emergence of a brown long eared bat from the northwestern section of the roof on 26th June 2024. It is therefore considered that the loft void of the building is used as an opportunistic/day roost by a brown long eared bat and a Natural England Low-Impact license is required for the works to this section of the building.

6.0 References

Bat Conservation Trust., (2022). *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys*

Collins, J. (ed.) (2023)., *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6

Institution of Lighting Professionals., (ILP - 2018)., *Guidance Note 08/18 – Bats and artificial lighting in the UK*. ILP, Rugby.

Lintott, P., & Mathews, F. (2018). *Reviewing the evidence on mitigation strategies for bats in buildings informing best-practice for policy makers and practitioners*.

Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

Internet resources:

Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

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