



ecosupport



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1.0 INTRODUCTION

1.1 Background

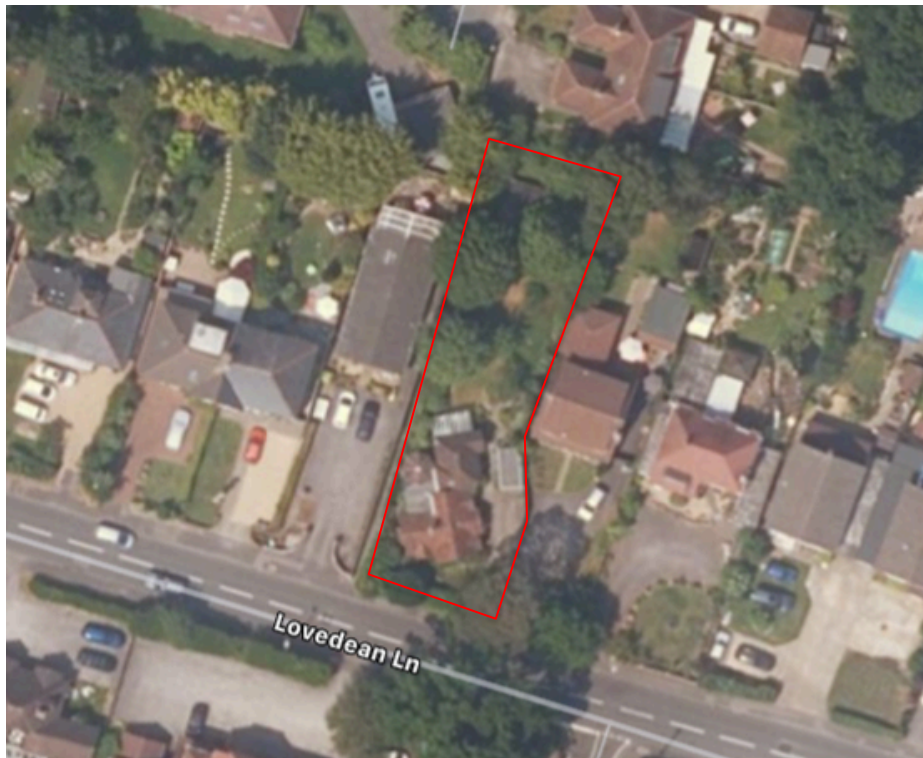
This document outlines the results of the bat surveys carried out by Ecosupport Ltd during May and June 2020 required in support of a planning application for a new development at 16 Lovedean Lane, Waterlooville. The surveys were recommended within the PEA report prepared by Ecosupport Ltd (2020) based on the identified presence of a number of Potential Roost Features (PRFs) within the main dwelling and outbuilding present on site.

NB If the development does not take place within 18 months of this report¹ then the findings of this survey will no longer be considered valid and should be repeated.

1.2 Site Description & Location

The site comprises of 16 Lovedean Lane and its associated garden area, Waterlooville, PO8 8HH (centered on OS grid reference SU 69295 11966) (**Fig 1**). The north, east and west of the site is bounded by residential properties and their associated gardens, with the south bounded by Lovedean Lane. The wider environ is largely urbanized with small woodland patches and public open spaces.

Figure 1. Google Maps (2020) aerial image of the site (redline).



1.3 Proposed Development

It is understood that the development will consist of the demolition of the existing dwelling and its associated outbuildings to be replaced by 2 new residential dwellings.

¹ <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

2.0 RELEVANT LEGISLATION & POLICY

2.1 Legislation & Policy Context

2.1.1 Relevant legislation

The Wildlife & Countryside Act 1981 (as amended) is the primary piece of legislation by which biodiversity in the UK is protected. The most relevant areas of the Act to development related activities are:

- The protection of certain species listed in Schedule 5, which prohibits killing, injury, disturbance, damage and / or destruction of breeding sites and / or resting places and sale (it should be noted that all parts of this protection do not apply to all Scheduled species).

The Natural Environment and Rural Communities (NERC) Act 2006 requires that public bodies to have regard to the conservation of biodiversity. This means that Planning Authorities must consider biodiversity when planning or undertaking activities. Section 41 of the Act lists species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities under the *UK Post-2010 Biodiversity Framework*.

2.1.2 National Planning policy

The revised National Planning Policy and Framework (NPPF) (last updated February 2019) replaces the previous NPPF (published 2012, revised July 2018) and sets out the Government's vision for biodiversity in England in line with the country's 25 Year Environment Plan. The revised NPPF is supported by the National Planning Practice Guidance (NPPG) (published January 2016, last updated July 2019). The relevant section of the Guidance concerning biodiversity is 'Natural Environment: Biodiversity, Geodiversity and Ecosystems'. Under this Guidance, Local Authorities' duty to have due regard to the conservation of biodiversity under the NERC Act (2006) is highlighted.

Chapter 15 of the revised NPPF, 'Conserving and Enhancing the Natural Environment', together with associated guidance within the NPPG, outlines key principles related to the natural environment.

Development plans should contribute to and enhance the natural environment. Plans should take both an individual and strategic approach to minimising biodiversity impacts, creating, conserving, restoring and enhancing priority habitats and habitat networks, protecting and aiding in the recovery of priority species and their populations, and providing measurable biodiversity net gains. Individual developments must consider how they can contribute to habitat networks in the wider area (including as part of the Nature Recovery Network), thereby increasing their resilience to current and future pressures.

2.1.3 Local policy

Policy 'CP21 BIODIVERSITY' of the East Hampshire District Council Local Plan: Joint Core Strategy (2014) states that development proposals must maintain, enhance and protect the District's biodiversity and its surrounding environment.

New development is required to maintain, enhance and protect district wide biodiversity, in particular the nature conservation designations. As well as extending specific protection to, and encouraging the enhancement of, other sites and features which are of local value for wildlife, contribute towards maintaining a district-wide network of local wildlife sites, wildlife corridors and stepping stones between designated sites and other areas of biodiversity value or natural green space. This will help to prevent the fragmentation of existing habitats and allow species to respond to the impacts of climate change. Development must also ensure wildlife enhancements are incorporated into the design to achieve a net gain in biodiversity by designing in wildlife and by ensuring that any adverse impacts are avoided where possible or, if unavoidable, they are appropriately mitigated for, with compensatory measures only used as a last resort. Finally the Core Strategy specifically mentions the importance of protecting and, where appropriate, strengthen populations of protected species.

3.0 METHODS

3.1 Dusk Emergence Surveys

The emergence surveys were led by Aaron Domblides (5 years bat survey experience with Ecosupport Ltd) with assistance from Gemma Nixon, Lyndsey Mcbean, Gregory Barratt, Leah Murphy, Hannah McCabe and James Black, all experienced bat surveyors with Ecosupport (locations shown in **Fig 3**). Both heterodyne (Bat Box Duet, Peterson D230 and Elkon Batscanner) and full spectrum (Anabat express) detectors were used for identifying species calls. The dusk emergence surveys began approximately 15 minutes prior to sunset and continued until approximately an hour and 20 minutes after sunset and the dawn survey started approximately an hour and 20 minutes prior to sunrise and finished 15 minutes after sunrise. Survey sheets were used to record the following information:

- Time of call registration
- Species (if possible to identify using heterodyne detector)
- Location / activity
- Direction of flight (if seen)

Figure 3. Approximate locations of the surveyors (red circles) with the direction facing also shown (red arrows).



3.2 Limitations

There were not considered to be any significant limitations to the survey, with it undertaken during the accepted survey season (Collins (ed) 2016), during suitable weather conditions and with all access points covered.

4.0 RESULTS

4.1 Dusk Emergence Surveys

Based on the **High** roost potential assessment of the main dwelling and **Moderate** roost potential of the outbuilding, 3 surveys were undertaken on the main dwelling and 2 on the outbuilding, in line with best practice survey guidelines (Collins (ed), 2016). The results of the surveys are provided below (**Table 1** and **2 below**) with the location of the emergence also shown (**Fig 4**).

Table 1. Relevant information on conditions recorded during each of the surveys.

Date	Start Temp (°C)	Finish Temp (°C)	Cloud Cover (%)	Wind (beaufort scale)	Start time	Finish time	General information
18/05/2020	14	12	10	1	20:37	22:12	Dry, calm, mild
03/06/2020	14	14	80	1	03:34	05:09	Dry, mild
18/06/2020	14	13	100	4	21:06	22:41	Mild and dry

Table 2. Results from bat surveys. HNS = Heard Not Seen

Survey Date	Recorded Bat Roost	General Bat Activity on Site		
18 th May 2020	1 Common Pipistrelle Emergence (from the main dwelling)	Species	First Pass	Last Pass
		Common Pipistrelle	20:57	22:08
		Serotine	21:28	22:03
		Soprano Pipistrelle	21:43	21:43
		<u>Summary:</u>		
		Activity during this survey was considered to be low with individual commuting bats and individual bats foraging. Species diversity was also low with 3 species recorded during this survey.		
		The first registration was from a Common Pipistrelle (<i>Pipistrellus pipistrellus</i>) at 21:57 seen foraging briefly to the north of the site. At 21:05 a Common Pipistrelle emerged from the clay peg tile roof of the main dwelling with the rough location shown in (Fig 4). Following this a total of 15 Common Pipistrelle were recorded commuting through / past the site between 21:09 and 22:08, with Common Pipistrelle also recorded intermittently foraging between 21:15 and 21:49.		
The next species recorded was a Serotine, which was first recorded commuting to the north of the site at 21:28. A				

		further two Serotine were then recorded also commuting to the north of the site at 21:41 and 22:03. The final species recorded was a single Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>), which was HNS commuting past at 21:46. No bats were recorded emerging from the outbuilding.		
3 rd June 2020	No bat re-entries	Species	First Pass	Last Pass
		Common Pipistrelle	03:35	04:36
		<u>Summary:</u> Similarly to the first survey, activity levels during this survey were considered to be generally low with occasional commuting bats with reduced foraging levels. Species diversity was also low with only 1 species recorded during this survey. The first registration was from a Common Pipistrelle at 03:35 that was HNS commuting past the site. Between 03:37 and 04:36 a total of 21 common pipistrelle passes were noted, with it being suspected that most of these passes were from the same couple of bats that were foraging around within the local area as the passes were in a range of directions. No bats were recorded roosting within the main dwelling or outbuilding during this survey.		
18 th June 2020	No emergences	Species	First Pass	Last Pass
		Common Pipistrelle	21:40	22:38
		<u>Summary:</u> As per the previous surveys, activity during this survey was considered to be lower than the previous surveys with occasional commuting bats. Species diversity was also low with only 1 species recorded during this survey. The first registration was from a Common Pipistrelle (<i>Pipistrellus pipistrellus</i>) at 21:40 that was recorded commuting over the neighbouring property. Following this, an additional 3 Common Pipistrelle were recorded commuting through the site between 21:47 and 22:38. No other species were recorded during this survey and no emergences were recorded.		

Figure 4. Approximate location of the Common Pipistrelle emergence during the first survey



5.0 EVALUATION, IMPACTS

5.1 Summary & Evaluation of Results

5.1.1 Foraging and commuting

Overall, the levels of foraging and commuting bats recorded on site during the emergence survey was considered to be low and comprised largely of common species (*Pipistrellus* spp) with occasional Serotine commuting. Therefore the site is not considered to be an important foraging or commuting area for bats. The impacts of the proposed plans on foraging and commuting bats is considered low and the recommendations made in **section 6.0** of the accompanying Preliminary Ecological Appraisal (Ecosupport, 2020) are sufficient to ensure that impacts are minimised.

5.1.2 Roosting

The main dwelling was noted to contain roosting bats during just one of the three surveys, with a maximum count of a single roosting Common Pipistrelle, which was recorded emerging from the roof of the main dwelling. As a result of the intermittent use of this building, it was considered to be a Common Pipistrelle day roost.

There were no bats recorded emerging or returning to roost within the outbuilding and therefore it is considered that there is a likely absence of bats using this building.

Common Pipistrelle are relatively common throughout the UK (Richardson, 2001) though have been subject to major declines over the last decade. Based on this, in accordance with the *Bat Mitigation Guidelines* (Mitchell – Jones, 2004), the roost within the main dwelling at 16 Lovedean Lane can be considered to be of **LOW CONSERVATION SIGNIFICANCE** and therefore of **LOCAL (Common Pipistrelle) VALUE** using the IEEM valuation criteria for bat roosts (Wray et al., 2010).

5.2 Implications

Due to the presence of a bat roost within the main dwelling, any works to the building that will result in damage or disturbance to the roost could constitute an offence under the Conservation of Habitats & Species Regulations (2010). In order for works that may result in such an offence (including demolition, modification of the building and repair) to legally take place, a European Protected Species (EPS) licence will be required. To inform an EPS, the below sections detail appropriate mitigation and compensation measures.

5.3 Impacts in the Absence of Mitigation

Unmitigated, proposed works would result in the loss of a Common Pipistrelle day roost and potentially lead to disturbing, injuring or even killing of individual bats. Due to the low conservation significance of the roost identified and the species present being common and widespread (as per Wray et al, 2010), there would be a **Certain negative impact** upon the species **at the local level of significance**.

6.0 MITIGATION & COMPENSATION

6.1 Introduction

In order to fully comply with applicable legislation and planning policy, it is necessary to mitigate or compensate for any significant ecological impacts.

The chapter is divided into three sections, dealing with mitigation, compensation and enhancement. Mitigation refers to measures that can be undertaken to avoid or reduce ecological impacts, for example by timing works to avoid periods when bats are roosting. Compensation refers to measures taken in order to offset potential significant impacts, for example by providing alternative roost sites to replace roost sites lost as a result of the works.

6.2 Mitigation

6.2.1 EPS Licence

All works that affect bat roost carried out on the main dwelling (**Fig 4**) must take place under an EPSL obtained from Natural England and under the supervision of a Suitably Qualified Ecologist (SQE). Destruction of the roost and capture of bats (if required) will need to be carried out under the supervision of a licenced SQE. All works would be detailed within the EPSL Method Statement required as part of the licence application.

6.2.2 Timing

It is recommended that works avoid the hibernation period (November – February), when bats are in a torpid state and therefore more vulnerable, but also within the optimum period for carrying out works (as per Bat Mitigation Guidelines). For summer day roosts, such as that identified, this optimum time frame is September until the mid-May (although there are not any particular timing contains imposed upon low conservation significance roosts). Works will take place in suitable weather conditions as defined by best practice guidance (Mitchell-Jones et al. 2004).

6.2.3 Supervision

Prior to any works getting underway the licensed bat worker will give a Tool Box talk which will detail best practice methods of sensitive stripping/removal of roofing tiles/materials and identifying signs of bats. Personel will be educated on signs of bats and that in the unlikely event a bat is found whilst the licensed ecologist is not on site, that all works should stop immediately until the licensee returns to site.

The licensed bat worker will then assist contractors with the removal of construction materials surrounding the roost.

6.2.4 Capture (if required)

If during the sensitive removal of construction materials bats are discovered, the supervising ecologist will place the individuals into a holding bag (a soft cloth bag with closure-strings and with seams on the outside (Mitchell-Jones and McLeish, 2004)) to ensure the bat keeps calm and will not take flight during daylight hours. They will then immediately transport the bat to one of the mitigating bat boxes where the bat will be released and left undisturbed. During this time, the licenced bat worker will be wearing appropriate bat handling gloves to ensure

the bat does not come to any harm. The licenced bat worker will have ample experience in handling a variety of bats and is confident in doing so.

6.2.5 Bat boxes

Prior to any works getting underway two Schwegler 2F bat boxes (with double front panel) will be erected on the retaining pine tree present to the front of the property (one south facing one north facing). The front panel has a second inner wooden panel fitted to it to create a cavity wall. This provides ideal quarters for bats that inhabit crevices, such as Common Pipistrelle and Soprano Pipistrelle. These boxes have been designed as a summer roosting space for bats, such as those identified on site. The bat box maintains a stable temperature inside the box and is painted black to absorb warmth.

The bat boxes are manufactured from long-lasting Woodcrete which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects. It also provides a rough surface for bats to cling on to and climb. This is a proportionate approach to mitigating for the loss of low-level roosts.

English Nature (2004) state that 'where roosts of low conservation significance are to be lost to development, bat boxes provide an appropriate form of mitigation, either alone or, preferably, in combination with the provision of roosts in buildings'.

6.2.6 Roof Underlining

To cover for the eventuality that all the new dwellings on site may become suitable for bats in the future, roofing felt should be utilised as opposed to Breathable Roof Membrane (BRM) or other fibrous materials for all roofing works, as there is considerable evidence to suggest that such material poses a threat to bats occupying a structure due to entanglement in the fibres (Natural England, 2015).

6.3 Compensation

Given the low conservation significance of the roosts identified, the most appropriate compensation would be to leave the 2 mitigation bat boxes *in situ* for perpetuity. Further to this, as per the PEA, both of the newly built dwellings will include one bat brick. The bat bricks recommended are the Ibstock Bat Brick B as they are available in a variety of different brick colours and require no maintenance. These should be positioned as close to the eaves as possible, away from windows and in a position that receives direct sunlight.

6.4 Monitoring and Maintenance

The *Bat Mitigation Guidelines* do not recommend further conditions in relation to the post development monitoring of bat roosts of low conservation significance. However, a compliance check will be carried out to ensure all agreed mitigation and compensation techniques have been implemented.

6.5 Additional Recommendations

6.5.1 Enhancements

Appropriate recommendations for the enhancement of the site and specifications for sensitive lighting post-development are made within **chapter 6.0** of the accompanying Preliminary Ecological Appraisal (Ecosupport, 2020).

6.5.2 Validity of survey results

If the development does not take place within 18 months of this report, then the findings of this survey will no longer be considered valid and should be repeated (in line with new CIEEM guidance)².

² <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

7.0 REFERENCES

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