

Bat Emergence Activity Survey Report

Land at The Lydhurst Estate,
Warninglid

July 2025

Bat Emergence Activity Survey Report

Land at The Lydhurst Estate, Warninglid

30/07/2025

Rural Solutions
Lydhurst Estate
Warninglid
West Sussex
RH17 5TG

Document Control:

Project no.:		Project name:		
13362		Land at The Lydhurst Estate, Warninglid		
Version:	Written by:	Checked by:	Authorised by:	Date:
V1	Amber Howie	Paul Carter	Richard Schofield	28 July 2025
V2	Amber Howie	Paul Carter	Paul Carter	30 July 2025

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Contents

1.	Introduction.....	1
2.	Methodology.....	3
3.	Results	6
4.	Discussion and Recommendations	11
5.	Conclusions.....	14
6.	References	16

Appendix A – Bat Survey Map

Appendix B – Legislation

Appendix C – Bat Survey Data

Non-technical Summary

Phlorum was commissioned by Rural Solutions to carry out a series of three bat activity (emergence/re-entry) survey which was/were carried out at Land at The Lydhurst Estate, Warninglid Lane, West Sussex, RH17 5SJ on the 09th September 2024, 20th May 2025 and 25th June 2025, prior to development. The bat survey follows on from a Preliminary Ecological Appraisal (PEA) and concurrent preliminary roost assessment for bats and this report should be read in conjunction with the PEA report (Phlorum 2024).

Current proposals involve demolition of the existing main building (B1) and construction of a new building and associated hard and soft landscaping. The survey area extended over approximately 1.8 hectares (ha).

The main findings of the survey are as follows:

- 🕒 The three surveys concentrated on the main building's (B1) eastern, southern and western faces due to the presence of ingress/egress points across the roof face.
- 🕒 Building 2 was included in the first survey as a low potential building requiring one survey only. No bats were seen emerging from the building during this survey. Under the current proposed scope of works, this building is being retained.
- 🕒 Overall, there was a high level of bat activity recorded at the site. A total of seven bat species were recorded foraging and commuting at the site which included common pipistrelle, soprano pipistrelle, noctule, Leisler's, brown long eared, myotis species and serotine. Individuals were mainly observed across the southern aspects of the site with multiple bats observed commuting and foraging around the gardens of the main building. Common pipistrelle and brown long eared bats were the most frequently recorded bat species
- 🕒 A peak of twelve bats were seen to emerge from the main building (B1) during the September 2024 bat activity survey. Bats were recorded emerging from the main building in lower amounts during the second and third surveys in the 2025 summer surveys.
- 🕒 Common pipistrelles were observed entering and emerging from Building 1 on all three survey visits. Therefore, it was determined that a bat roost is present within the roof space of Building 1. On each occasion one to three common pipistrelles were observed emerging from the building.
- 🕒 Brown long eared bats were observed entering and emerging from Building 1 on two survey visits. Brown long eared bats were observed in the roof void during the PEA survey (Phlorum, 2024). Therefore, it was determined that a bat roost is present within the roof space of Building 1.

- 🌱 Serotines were observed entering and emerging from Building 1 on two survey visits. Therefore, it was determined that a bat roost is present within the roof space of Building 1. On each occasion one serotine was observed emerging from the roof.
- 🌱 Based on the results of the surveys and the conditions supported at the buildings, the buildings were considered to support a feeding roost and a possible day or night roost which may be used by small numbers of Common Pipistrelle and serotine.
- 🌱 Based on the survey results and the results of the PRA (Phlorum, 2024) a maternity roost for brown long-eared bats is present within the roof void. Based on the results of this surveys undertaken, it is considered likely that the roosts, in each building, are of low to medium conservation importance.
- 🌱 Due to the presence of a roost in the roofs of the building, a Natural England European Protected Species Mitigation (EPSM) licence in regard to common pipistrelles, serotine and brown long eared bat will be required before any works take place on the building

This version (V2) has been produced to include minor text updates to mitigation measures.

Further information regarding mitigation and site enhancement is provided in the recommendations section of the report.

1. Introduction

Background

- 1.1 Phlorum Limited was commissioned by Rural Solutions to carry out a bat activity (emergence/re-entry) survey in relation to Land at The Lydhurst Estate, Warninglid Lane, (hereafter referred to as “the site”) prior to development.
- 1.2 The bat survey follows on from a Preliminary Ecological Appraisal (PEA) and concurrent preliminary roost assessment for bats (Phlorum 2024) and Bat Hibernation Survey (Phlorum, 2025) and this report should be read in conjunction with the previous reports.
- 1.3 It is understood that current proposals are for demolition of the existing main building (B1) and construction of a new building and associated hard and soft landscaping
- 1.4 During the initial preliminary roost assessment, a maternity roost of brown long-eared bat was found. Due to the presence of a high conservation status roost in the roof of the building a Natural England European Protected Species Mitigation (EPSM) licence in regard to brown long-eared bats will be required before any works take place on the building.
- 1.5 The building was considered to offer high potential for roosting bats. Multiple ingress/egress points were observed including lifted/loose tiles across the roof. It was therefore recommended that a series of three activity survey be undertaken to assess whether or not bats are using the structure/s.
- 1.6 This report provides an assessment of the status of bats within the site, providing information on their presence/likely absence and distribution. Potential impacts of the proposed development are identified and measures to mitigate the effects of the proposed development on bats are discussed in outline.

Site Description

- 1.7 The site is located at Land at The Lydhurst Estate, Warninglid Lane, West Sussex, RH17 5SJ. The site is located within the grounds of the Lydhurst Estate. The estate is private and includes several buildings within the wider ownership boundary, with the main house within the site boundary. The wider surroundings are predominantly rural, Warninglid village, with woodland and agricultural fields in the immediate and wider surroundings, to the east is a small urban area and there are scattered farm buildings around the area with minor roads.
- 1.8 The site comprised buildings (u1b5), other developed sealed surface (u1b6), modified grass (g4), other neutral grassland (g3c), ruderal vegetation (u81), flower beds (u1 846), introduced shrub (u1 847), and scattered trees (w32).

- 1.9 The National Grid Reference for the centre of the site is TQ24612593. The survey area extended over approximately 1.8 hectares (ha).

2. Methodology

Data Search

- 2.1 Records for bats within a 2km radius of the site were obtained from the Local Records Centre (SxBRC, 2024) as part of the Preliminary Ecological Appraisal.

Review of Preliminary Roost Assessment

- 2.2 A Preliminary Roost Assessment was carried out as part of the Preliminary Ecological Appraisal (Phlorum, 2024). A review of this document was carried out to guide the activity surveys and ensure appropriate coverage.
- 2.3 A bat hibernation survey was carried out December 2024 to February 2025 (Phlorum, 2025).

Personnel

- 2.4 The survey was led by Amber Howie, a suitably qualified ecologist, (BSc (Hons), qualifying member CIEEM) who holds a Bat Level 1 Survey Class Licence CL17 (Ref:2025-12638-CL17-BAT) with experience in undertaking a range of ecological surveys.
- 2.5 The survey results and assessment was reviewed by Paul Carter (BSc (Hons), MBA, MCIEEM), an ecologist with over 20 years of experience of managing ecological and landscaping projects and holder of a Bat Class Licence Level 1 CL17 (Ref: 2020-44978-CLS-CLS), and by the project director Richard Schofield (BSc (Hons), MSc, CSJK, MCIEEM, MIEMA, CEnv), with over twenty years of experience in managing projects and holder of a Bat Class Licence Level 2 CL18 (2025-13010-CL18-BAT).

Dusk Emergence Surveys

- 2.6 An activity survey was carried out on the 09th September 2024, 20th May 2025 and 25th June 2025. Seven surveyors were used to assess the site for roosting, foraging and commuting activity. Echo Meter Touch 2 Bat Detector were used for the survey. Night vision aids (NVAs) were used for the survey. These comprised thermal FLIR A70 Thermal Image Streaming Camera with FLIR software and comprised Sony FDR-AX53 camcorders partnered with infrared LED lights, to enable the buildings to be viewed with clarity despite low light levels. Continuous video was recorded for the duration of the surveys, allowing footage to subsequently be analysed for details. Due to the use of NVAs, which both enable surveyors to identify emergences at very low light levels and roost locations to be accurately pinpointed through review of the footage, it was considered that carrying out a series of dusk emergence surveys, as opposed to incorporating dawn re-entry surveys, would provide sufficient survey effort to reliably assess the roosting status of the buildings.
- 2.7 During the survey the lead surveyor was positioned to the south in the gardens with a view of the south face of the main building. The assistant surveyors were positioned around the main building and building 2 in order to ensure full coverage of the potential roost features.
- 2.8 The evening surveys commenced at least 15 minutes before sunset and lasted for at least two hours after sunset.
- 2.9 All surveys followed standard protocols and accepted standards (Mitchell-Jones and McLeish, 2004; Collins, 2023 and Reason, 2023).

Roost Characterisation

- 2.10 Where a potential bat roosting feature or confirmed roost was identified, the surveyor assessed how these could be used by bats throughout the year, in accordance with Natural England (2015):
-  day roost - where individual bats, or small groups of males, rest or shelter in the day, but rarely on summer nights;
 -  night roost - where bats rest or shelter at night, but rarely during the day;
 -  feeding roost - where bats rest at night between feeding sessions, but rarely during the day;
 -  hibernation roost - where bats are found during winter;
 -  transitional or occasional roost - where bats gather at a temporary site before and after hibernation;
 -  mating site - where males and females gather from late summer to early winter;

-  maternity roost - where babies are born and raised until they're independent;
-  satellite roost - where breeding females roost close to the main nursery colony in the breeding season; and
-  swarming site - where bats gather in large numbers from late summer to autumn.

Constraints

Data Search Constraints

- 2.11 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Bat Survey Constraints

Bats are mobile animals which can move roost sites both within and between years. It is possible that surveys carried out in September, May and June may miss roosts occupied at other times of the year.

3. Results

Data Search

- 3.1 The data search returned records (post 2004) for at least seven different species of bat within 2km of the site, from the genera pipistrelle (*Pipistrellus*), long eared (*Plecotus*), myotis (*Myotis*), serotine (*Eptesicus*), Noctule/Leisler's (*Nyctalus*), and barbastelle (*Barbastella*) occurring within the 2km search area in the past 15 years.
- 3.2 There are granted European Protected Species Licences (EPSLs) in the surroundings; however, ariel maps show them to be predominantly within the wider surroundings. The closest EPSL for bats is located within the Lydhurst estate grounds to the northwest for common pipistrelle and brown long-eared bats. The next closest is approximately 1km to the southwest for common and soprano pipistrelle, brown long-eared bats and whiskered myotis. The SxBRC data searches returned records of maternity roosts present within 1.5km of the site boundary. The closest EPSLs for great crested newt are over 2.5km to the northeast and west. For mammals (hazel dormouse) the closest is over 4km to the north.

Review of Previous Reports

- 3.1 The Ecological Impact Assessment (ECIA) produced for the site by Lizard Landscape Design and Ecology (2021) recommended phase 2 protected species surveys for bats, amphibians including HSI assessment of surrounding ponds and ground level assessment of trees and subsequently undertaken. The report covers a larger red line boundary over the estate.
-  Bat surveys undertaken in 2017 and 2019 identified several bat roosts within the Lydhurst Estate ground including maternity and day roosts for common and soprano pipistrelle, brown long eared and whiskered bat species.
 -  The ground level tree assessment identified several trees considered to have high potential for roosting bats, however none of these trees are within the red line boundary surveyed as part of this PEA report.
- 3.2 A Preliminary Roost Assessment was carried out as part of the Preliminary Ecological Appraisal (Phlorum, 2024). This discovered the following potential roost features:

Main Building (B1)

-  The Main house (B1) is the focal point of the proposed development.
-  Brown long eared bats roosting within the main roof void. Due to the number of bats present (10-20) this was considered to be a maternity roost.

- External features of multiple ingress/egress points including loose/lifted tiles.
- Overall, the main house was assessed as having **high** potential to support roosting bats, and bats were determined to be **present** within the roof void

Building 2 (B2)

- Building 2 (B2) was a small building at the northwest boundary.
- External features of loose/lifted tiles on the west face of the roof.
- Overall, building 2 was assessed as having **low** potential to support roosting bats.

3.3 A bat hibernation survey was carried out following the Preliminary Ecological Appraisal (Phlorum, 2025). A summary of the findings is listed below:

- During the hibernation surveys, both the roof void and the cellar were inspected for signs of hibernating bats. During the December visit, one brown long-eared bat was seen roosting within the roof void, however no bats were seen on subsequent visits.
- During the static detector survey no recordings of bats echolocating were made within the roof void of the building on the three surveys.
- Overall, there was a low level of bat hibernation activity at the site. A total of one brown long eared bat (*Plecotus auritus*) was recorded during the month of December.
- Based on the results of the surveys and the conditions supported at the building, the building is considered to support a hibernation roost which may be used by small numbers of bats.

First Dusk Emergence Survey

09th September 2024

- 3.4 Sunset was at 19:27hrs and the temperature at the start of the survey was 13°C, falling to 13°C at the end of the survey. The weather was warm and mild with no wind or rain.
- 3.5 In total seven bat species were recorded during the survey. These were common pipistrelle, soprano pipistrelle, noctule, brown long eared, myotis species and serotine.
- 3.6 No bats were seen emerging from building (B2) for the duration of the survey
- 3.7 Twelve bats were seen emerging from the main building (B1) during the survey. One serotine bat was recorded emerging from the top right of the south face of the building. Three brown long eared were recorded emerging from the lip of the roof at the southwest corner and eight common pipistrelles were recorded emerging from the lip of the roof/guttering at the southwest face of the building.

- 3.8 The first bat pass was recorded at 19:35hrs which was a serotine that was seen and heard emerging from the building. Foraging was recorded in high densities from common pipistrelles which were observed emerging from the building and foraging around the main building gardens. The highest level of activity was recorded from 20:20hrs with frequent activity from brown long eared bats and common pipistrelle. The last pass was recorded at 21:26hrs which was a brown long eared bat which was heard but not seen and continued until the end of the survey at 21:27.
- 3.9 The full survey data can be found in Appendix C.

Second Dusk Emergence Survey

20th May 2025

- 3.10 Sunset was at 20:52hrs and the temperature at the start of the survey was 16°C, falling to 13°C at the end of the survey. The weather conditions were mild and dry with no wind.
- 3.11 In total six bat species were recorded during the survey. These were common pipistrelle, soprano pipistrelle, noctule, Leisler's, brown long eared, and serotine.
- 3.12 Seven bats were seen emerging from the main building (B1) during the survey. One serotine bat was recorded emerging from the top right of the south face of the building. Three brown long eared were recorded emerging from the lip of the roof at the southwest corner and three common pipistrelles were recorded emerging from the lip of the roof/guttering at the southwest face of the building.
- 3.13 The first bat pass was at 21:02hrs which was a serotine that was seen and heard emerging from the top left of the main buildings south roof face. Foraging was recorded throughout the survey; the majority of the activity was recorded around the south of the building within the gardens. The highest level of activity was from 21:20hrs and continued until the end of the survey. The last pass was recorded at 22:47hrs which was a common pipistrelle which was heard not seen and continued until the end of the survey at 22:52hrs.
- 3.14 The full survey data can be found in Appendix D.

Final Dusk Emergence Survey

25th June 2025

- 3.15 Sunset was at 21:19hrs and the temperature at the start of the survey was 21°C, falling to 18°C at the end of the survey. The weather conditions were warm and dry for the duration of the survey.
- 3.16 In total six bat species were recorded during the survey. These were common pipistrelle, soprano pipistrelle, noctule, brown long eared, myotis species and serotine.

- 3.17 Three bats were seen emerging from the main building (B1) during the survey. These were common pipistrelles which were recorded emerging from the lip of the roof/guttering at the southwest face of the building.
- 3.18 The first bat pass was recorded at 21:34hrs which was a common pipistrelle which was heard not seen. Based on the time of the first passes, it can be assumed that roosts are close by for these species. Foraging was recorded across the southern aspects of the site with multiple bats observed commuting and foraging around the gardens of the main building. The highest level of activity was recorded from 22:12hrs which was foraging common pipistrelles which continued until 22:32hrs. The last pass was recorded at 23:17hrs which was a noctule which was heard but not seen.

Survey Overview

- 3.19 The three surveys concentrated on the main building's (B1) eastern, southern and western faces due to the presence of ingress/egress points across the roof face.
- 3.20 Building 2 was included in the first survey as a low potential building requiring one survey only. No bats were seen emerging from the building during this survey. Under the current proposed scope of works, this building is being retained.
- 3.21 A peak of twelve bats were seen to emerge from the main building (B1) during the September 2024 bat activity survey. Bats were recorded emerging from the main building in lower amounts during the second and third surveys in the 2025 summer surveys.
- 3.22 Overall, there was a high level of bat activity recorded at the site. A total of seven bat species were recorded foraging and commuting at the site which included common pipistrelle, soprano pipistrelle, noctule, Leisler's, brown long eared, myotis species and serotine. Individuals were mainly observed across the southern aspects of the site with multiple bats observed commuting and foraging around the gardens of the main building. Common pipistrelle and brown long eared bats were the most frequently recorded bat species.
- 3.23 The area surveyed is illustrated in the Map in Appendix A.
- 3.24 The survey data is provided in Appendix C. A summary of the results from the three surveys is shown below:

Species	No of passes	% of passes	No of emergences
Common Pipistrelle	940	63.73%	14
Soprano Pipistrelle	66	4.47%	0
Noctule	53	3.59%	0
Leisler's	2	0.14%	0
Serotine	18	1.22%	2
Myotis species	7	0.47%	0
Brown long-eared	389	26.37%	6

4. Discussion and Recommendations

Discussion

- 4.1 Overall, there was a **high** level of bat activity recorded at the site. A total of seven bat species were recorded foraging, socialising and commuting at the site. A peak of twelve bats were seen to emerge from the main building (B1) during the September 2024 bat activity survey. Bats were recorded emerging from the main building in lower amounts during the second and third surveys in the 2025 summer surveys.
- 4.2 Based on the findings of this survey a European Protected Species Mitigation (EPSM) licence **will be required**.

Recommendations

Construction Phase

- 4.3 Based on the results of the bat emergence/activity surveys and the conditions supported at the building, the building is considered to support;
-  A feeding roost and a possible day or night roost which may be used by common and soprano pipistrelles.
 -  A feeding roost and a possible day or night roost which may be used by small numbers of serotine bats.
 -  A maternity roost of brown long eared bats.
- 4.4 Based on the results of the surveys undertaken, it is considered likely that the feeding roosts are of low conservation importance but the maternity roost is of high conservation importance.
- 4.5 A hibernation survey was undertaken by Phlorum (Phlorum, 2025). Based on the results of the hibernation surveys the building is considered to support;
-  A hibernation roost for brown long eared bats (high conservation importance).
- 4.6 A Natural England European Protected Species Mitigation (EPSM) licence in regard to common pipistrelles, serotine and brown long eared will **be required** before any works take place; a licence can only be applied for once planning permission has been granted, it is required, or for permitted development rights projects.

High Conservation Importance

- 4.7 It is considered that the maternity and hibernation roosts observed for brown long eared) are roosts, of high conservation importance. As these roosts are not of low conservation importance a low impact license cannot be applied for.

- 4.8 A Natural England European Protected Species Mitigation (EPSM) licence in regard to brown long eared bats **will be required** before any works take place; a licence can only be applied for once planning permission has been granted, it is required, or for permitted development rights projects.
- 4.9 A visit to the site must be carried out by an ecologist within three months of applying for the licence to check that there have been no alterations to the site since the last visit. Once the licence application is submitted to Natural England, they take 30 working days to assess the application and either approve, reject or query the application. If a query is made, the application may be re-submitted and Natural England will take another 30 working days to re-assess the application.
- 4.10 In order to gain a licence, appropriate mitigation and compensation must be carried out and monitoring surveys may be required post-development.
- 4.11 Outline mitigation will include the following and this will be detailed fully in a method statement as part of the licence:
- 🌿 Appropriate timing of the works;
 - 🌿 A licensed bat ecologist will oversee certain phases of the demolition;
 - 🌿 Compensatory roosting opportunities on a like for like basis will be included and intermediary roosting opportunities for bats provided whilst the construction work is taking place;
 - 🌿 The development will need to ensure roosting provision for long-eared bats is maintained in the long term. This will include availability of timber beams for roosting and a suitable flying area within the roof space of a dedicated bat house; and
 - 🌿 Breathable membranes should not be used as part of the new building design.

Habitat Enhancement/Retention

- 4.12 Boundary trees around the site should be retained. These features provide habitat connectivity to the wider landscape.
- 4.13 Additional roosting opportunities could be incorporated into the final design to enhance the site for roosting bats post works. This could include the installation of at least two bat boxes such as the Schwegler 1FF bat box located on surrounding mature trees within the site. These should be orientated with a south east or south west aspect and located at least 3m from ground level.

Bats and Lighting

- 4.14 Different species of bat have been found to react differently to night-time lighting however research has found that generally, all species of bats are sensitive to artificial lighting and that excessive lighting can delay bats from emerging, thus shortening the time available for foraging, as well as causing individuals to move away from suitable foraging grounds or roost sites, to alternative dark areas (Jones, 2000). Bats can also become isolated from their foraging grounds if the linear features they use for commuting are suddenly illuminated, creating a light barrier (Fure, 2006).
- 4.15 The current site is not well lit at night and therefore the development should serve to maintain the site's value for foraging bats and to minimise indirect impacts from lighting associated with the new building. This can be achieved by following accepted best practice (Institute of Ecology and Environmental Management 2006, Institute of Lighting Professionals 2018, 2023, and Bat Conservation Trust, 2014):
-  The level of any artificial lighting including flood lighting should be kept to a minimum, particularly around the site boundaries;
 -  LED lights are a preferred option to low pressure sodium lights or high pressure sodium or mercury lamps. LED lights do not emit UV radiation, towards which some insects are attracted, drawing them away from bat foraging areas in the surrounding landscape;
 -  all lights should be directed at a low angle with minimal light spillage wherever possible;
 -  ideally the site boundaries should be kept dark, preferably at bat emergence (0-1 hour after sunset) and during peak bat activity periods (e.g. 1.5 hours after sunset and 1.5 hours before sunrise);
 -  Artificial lighting should not directly illuminate any potential bat commuting areas such as boundary features. Similarly, any newly planted linear features or buffer areas around the site boundary should not be directly lit; and
 -  If security lights are required, then they will be set on a Passive Infrared (PIR) sensor and timer so that the light is only emitted for the short time period required.

5. Conclusions

Conclusions

- 5.1 The site is located at The Lydhurst Estate, Warninglid Lane, West Sussex, RH17 5SJ. The site together with a network of trees, fields and woodland blocks provide potential roosting, foraging and commuting opportunities for bats in the wider landscape.
- 5.2 The site comprised buildings (u1b5), other developed sealed surface (u1b6), modified grass (g4), other neutral grassland (g3c), ruderal vegetation (u81), flower beds (u1 846), introduced shrub (u1 847), and scattered trees (w32). It is understood that current proposals involve demolition of the existing main building (B1) and construction of a new building and associated hard and soft landscaping. The survey area extended over approximately 1.8 hectares (ha).
- 5.3 During the initial preliminary roost assessment undertaken on 2nd September 2024 (Phlorum 2024) the main building was considered to offer high potential for roosting bats, based on the presence of brown long eared bats roosting within the roof void, droppings across the internal roof void and the presence of ingress/egress points to the exterior of the roof.
- 5.4 The three surveys concentrated on the main building's (B1) eastern, southern and western faces due to the presence of ingress/egress points across the roof face.
- 5.5 Building 2 was included in the first survey as a low potential building requiring one survey only. No bats were seen emerging from the building during this survey. Under the current proposed scope of works, this building is being retained.
- 5.6 Overall, there was a **high** level of bat activity recorded at the site. A total of seven bat species were recorded foraging and commuting at the site which included common pipistrelle, soprano pipistrelle, noctule, Leisler's, brown long eared, myotis species and serotine. Individuals were mainly observed across the southern aspects of the site with multiple bats observed commuting and foraging around the gardens of the main building. Common pipistrelle and brown long eared bats were the most frequently recorded bat species
- 5.7 A peak of twelve bats were seen to emerge from the main building (B1) during the September 2024 bat activity survey. Bats were recorded emerging from the main building in lower amounts during the second and third surveys in the 2025 summer surveys.
- 5.8 Common pipistrelles were seen and recorded emerging from the main building during all three activity surveys.
- 5.9 Brown long eared bats and serotines were seen and recorded emerging from the main building during two of the three activity surveys.

- 5.10 It is believed that common pipistrelle and serotine bat roosts (probably a feeding roost or possible day or night roost) is present within the building.
- 5.11 A maternity roost and hibernation roost of brown long eared bats were recorded within the building.
- 5.12 Therefore, a Natural England European Protected Species (EPSM) licence in regard to common pipistrelles, serotine and brown long eared bats will be required before any works on the roof take place.

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Appendix A

Bat Survey Map

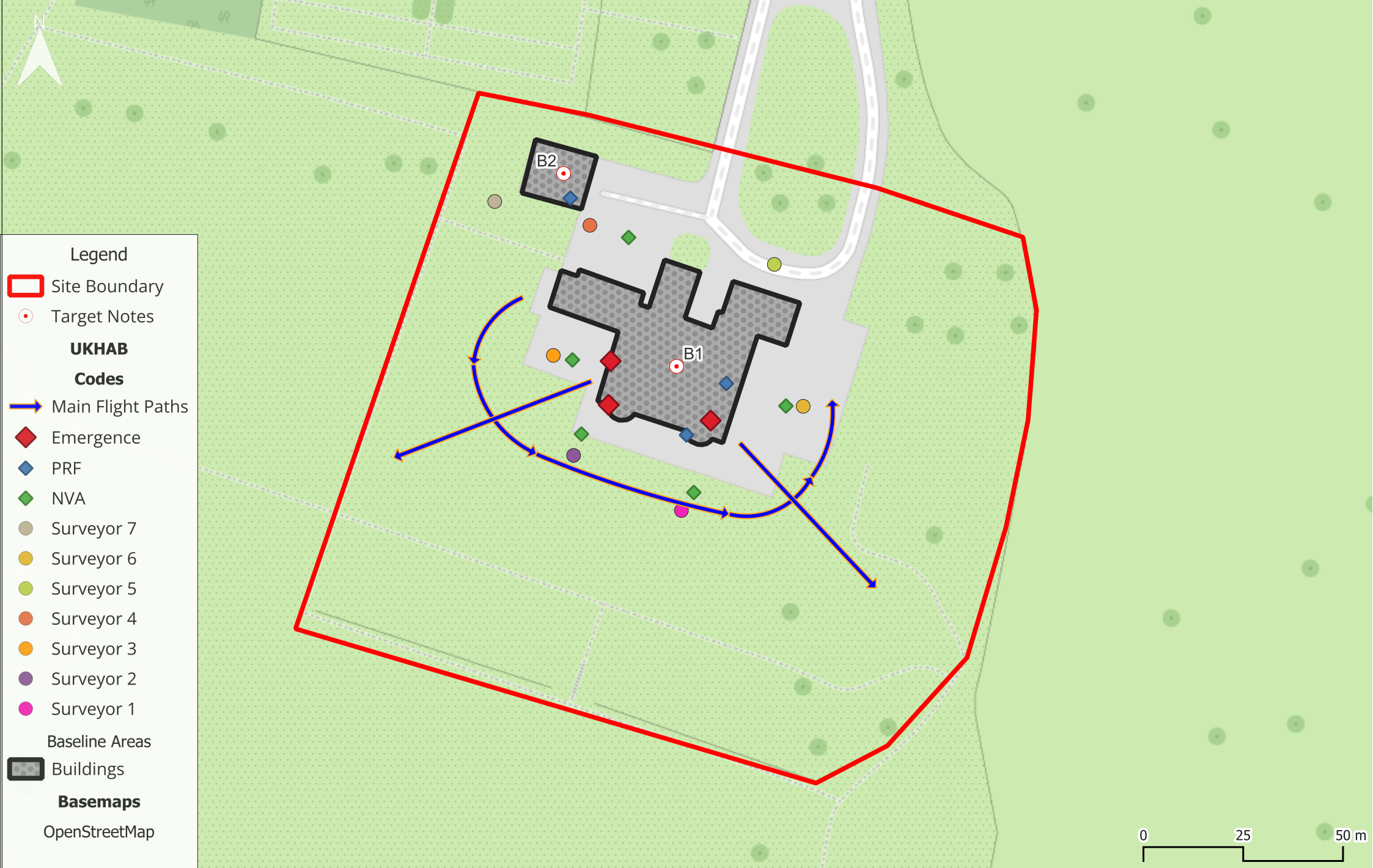


Figure 1 - Bat Activity Survey Map for Land at the Lydhurst Estate

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Job No: 13362
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 Date: 28/07/2025
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Appendix B

Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.

Species

The objective of the EC Habitats Directive¹ is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CROW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

-  Countryside and Rights of Way (CROW) Act 2000;
-  Deer Act 1991;
-  Natural Environment & Rural Communities (NERC) Act 2006;
-  Protection of Badgers Act 1992; and
-  Wild Mammals (Protection) Act 1996.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

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

¹ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

- 👁️ selling, offering or exposing for sale, possession or transporting for purpose of sale

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- 👁️ deliberate killing, injuring or capturing of Schedule 2 species (all bats);
- 👁️ deliberate disturbance of bat species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 👁️ deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- 👁️ damage or destruction of a breeding site or resting place; and
- 👁️ keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Appendix C

Bat Survey Data

Bat Survey Data

First Dusk Emergence Survey on 09th September 2024

Number of Surveyors	Site and Job no:	Start Time	Sunset Time	Finish Time	Temperature (°C) at start	Temperature (°C) at end	Cloud Cover (Oktas 1-8)	Windspeed (Beauforts 1-12)	Rain
7	Lydhurst Estate 13362	13:12	19:27	21:27	15	13	4		0

Surveyor 1: AH		Bat Detector Used: Echo Meter Touch 2 Pro		
Species	Activity observed	% of Total Passes	Number of Passes	
Common Pipistrelle	Seen and heard- emerging and foraging	25%	34	
Soprano Pipistrelle	Heard	2%	3	
Noctule	Heard	9%	12	
Myotis Species	Heard	1%	1	
Serotine	Seen and heard- emerging	2%	2	
Brown long eared	Seen and heard- emerging	61%	81	
		Total bat passes:	133	

Surveyor 2: RW		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	15.5%	32
Soprano Pipistrelle	Heard	1.5%	3
Noctule	Heard	0.5%	1
Myotis Species	Heard	1%	2
Serotine	Seen and heard- emerging	0.5%	1
Brown long eared	Seen and heard- emerging	81%	166
		Total bat passes:	205
Surveyor 3: IG		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	28%	36
Soprano Pipistrelle	Heard	1%	1
Noctule	Heard	14%	18
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	72%	72
		Total bat passes:	127

Surveyor 4: IM		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	45%	49
Soprano Pipistrelle	Heard	13%	15
Noctule	Heard	5%	5
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	37%	41
		Total bat passes:	110
Surveyor 5: LU		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	94%	33
Soprano Pipistrelle	Heard	0%	0
Noctule	Heard	0%	0
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	6%	2
		Total bat passes:	35

Surveyor 6: RS		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	93%	103
Soprano Pipistrelle	Heard	1%	1
Noctule	Heard	2.5%	3
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	3.5%	4
		Total bat passes:	111
Surveyor 7: AF (B2)		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	44%	26
Soprano Pipistrelle	Heard	2%	1
Noctule	Heard	2%	1
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	52%	31
		Total bat passes:	59

Second Dusk Emergence Survey on 20th May 2025

Number of Surveyors	Site and Job no:	Start Time	Sunset Time	Finish Time	Temperature (°C) at start	Temperature (°C) at end	Cloud Cover (Oktas 1-8)	Windspeed (Beauforts 1-12)	Rain
6	Lydhurst Estate 13362	20:37	20:52	22:52	16	13	1	0	0

Surveyor 1: AH		Bat Detector Used: Echo Meter Touch 2 Pro		
Species	Activity observed	% of Total Passes	Number of Passes	
Common Pipistrelle	Seen and heard- emerging and foraging	82%	108	
Soprano Pipistrelle	Heard	10%	13	
Leisler's	Heard	2%	2	
Myotis Species	Heard	0%	0	
Serotine	Seen and heard- emerging	2%	2	
Brown long eared	Seen and heard- emerging	4%	5	
		Total bat passes:	130	

Surveyor 2: RS		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	69%	69
Soprano Pipistrelle	Heard	0%	0
Noctule	Heard	1%	1
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	1%	1
Brown long eared	Seen and heard- emerging	3%	2
		Total bat passes:	73
Surveyor 3: RA		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	96%	101
Soprano Pipistrelle	Heard	0%	0
Noctule	Heard	0%	0
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	2%	2
Brown long eared	Seen and heard- emerging	2%	2
		Total bat passes:	105

Surveyor 4: AF		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	44%	7
Soprano Pipistrelle	Heard	12%	2
Noctule	Heard	0%	0
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	31%	5
Brown long eared	Seen and heard- emerging	13%	2
		Total bat passes:	16
Surveyor 5: KM		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	18%	5
Soprano Pipistrelle	Heard	64%	18
Noctule	Heard	7%	2
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	4%	1
Brown long eared	Seen and heard- emerging	7%	2
		Total bat passes:	28

Surveyor 6: JN		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	54%	7
Soprano Pipistrelle	Heard	31%	4
Noctule	Heard	15%	2
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	0%	0
		Total bat passes:	13

Final Dusk Emergence Survey on 25th June 2025

Number of Surveyors	Site and Job no:	Start Time	Sunset Time	Finish Time	Temperature (°C) at start	Temperature (°C) at end	Cloud Cover (Oktas 1-8)	Windspeed (Beauforts 1-12)	Rain
6	Lydhurst Estate 13362	21:04	21:19	23:19	21	18	2	0	0

Surveyor 1: AH		Bat Detector Used: Echo Meter Touch 2 Pro		
Species	Activity observed	% of Total Passes	Number of Passes	
Common Pipistrelle	Seen and heard- emerging and foraging	97%	206	
Soprano Pipistrelle	Heard	1%	0	
Noctule	Heard	1%	3	
Myotis Species	Heard	1%	2	
Serotine	Seen and heard- emerging	1%	1	
Brown long eared	Seen and heard- emerging	0%	0	
		Total bat passes:	212	

Surveyor 2: HG		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	84%	44
Soprano Pipistrelle	Heard	0%	0
Noctule	Heard	6%	3
Myotis Species	Heard	1%	1
Serotine	Seen and heard- emerging	2%	1
Brown long eared	Seen and heard- emerging	3%	3
		Total bat passes:	52
Surveyor 3: RA		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	94%	46
Soprano Pipistrelle	Heard	0%	0
Noctule	Heard	0%	0
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	6%	3
		Total bat passes:	

Surveyor 4: IM		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	97%	30
Soprano Pipistrelle	Heard	0%	0
Noctule	Heard	0%	0
Myotis Species	Heard	0%	0
Serotine	Seen and heard- emerging	0%	0
Brown long eared	Seen and heard- emerging	3%	1
		Total bat passes:	31
Surveyor 5: LE		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	94%	
Soprano Pipistrelle	Heard	0%	
Noctule	Heard	0%	
Myotis Species	Heard	0%	
Serotine	Seen and heard- emerging	0%	
Brown long eared	Seen and heard- emerging	6%	
		Total bat passes:	

Surveyor 6: ML		Bat Detector Used: Echo Meter Touch 2 Pro	
Species	Activity observed	% of Total Passes	Number of Passes
Common Pipistrelle	Seen and heard- emerging and foraging	84%	84
Soprano Pipistrelle	Heard	1%	0
Noctule	Heard	6%	6
Myotis Species	Heard	2%	2
Serotine	Seen and heard- emerging	1%	2
Brown long eared	Seen and heard- emerging	3%	6
		Total bat passes:	52



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