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4th February 2025
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C2507-2 – PLOT 2, RIVERSIDE, HENLEY-ON-THAMES: UPDATED BAT ROOST ASSESSMENT

Introduction and Background

An assessment of the suitability of the building on Plot 2, Riverside, Henley-on-Thames, RG9 3JD was undertaken by Swift Ecology Ltd on 24th January 2025 in connection with a householder planning application (reference 242859) for the proposed erection of a replacement pitched roof on the existing cabin. The cabin is located at OS grid reference SU 7706 8204.

The cabin was previously surveyed by Swift Ecology Ltd. in 2020 in connection with a previous planning application to complete extension and improvement works. The findings of the previous survey are reported in Swift Ecology Ltd. report C2507-1, dated 12th June 2020. The assessment was subsequently updated in 2023, as detailed in Swift Ecology Ltd. report C2507-2 v1, dated 7th September 2023. The previous assessments determined the building had 'negligible' suitability for roosting bats (Collins, 2016).

Due to the time which has elapsed since the previous site visit, an updated survey was completed in 2025 to determine if there have been any significant changes in the condition of the building.

Personnel

Anna Dudley is employed as a Principal Ecologist with Swift Ecology Ltd and is an experienced bat surveyor and holder of a Natural England survey licence for bats (Class Licence reference 2017-32147-CLS-CLS). Anna graduated from Aberystwyth University in 2005 and has over 15 years' experience working as a consultant ecologist. Anna has undertaken numerous preliminary ecological appraisals, botanical surveys (FISC Level 4), preliminary roost assessments (bats) and surveys for protected species including great crested newt and otter, and has prepared subsequent reports with appropriate recommendations.

Site Context and Description

The site is located on the eastern bank of the River Thames, to the east of Henley-on-Thames, roughly 800 m south-east of the town centre. The eastern bank of the Thames on which the site is located is lined with other small buildings and residential homes with small gardens dominated by short grass with occasional trees. The opposite (western) bank is a public park, which is dominated by open grassland with scattered trees, and tree belts at the peripheries. Approximately 130 m north of the site is a large area of deciduous woodland. The habitats surrounding the site provide good quality foraging habitat for a variety of bat species, especially the river and nearby woodland. In the wider area, the town of Henley-on-Thames dominates land to the west of the river, whilst to the east of the site the landscape comprises a mixture of farmland, large residential properties with their associated gardens, and scattered small, wooded areas.

The cabin's location is illustrated in Figure 1.

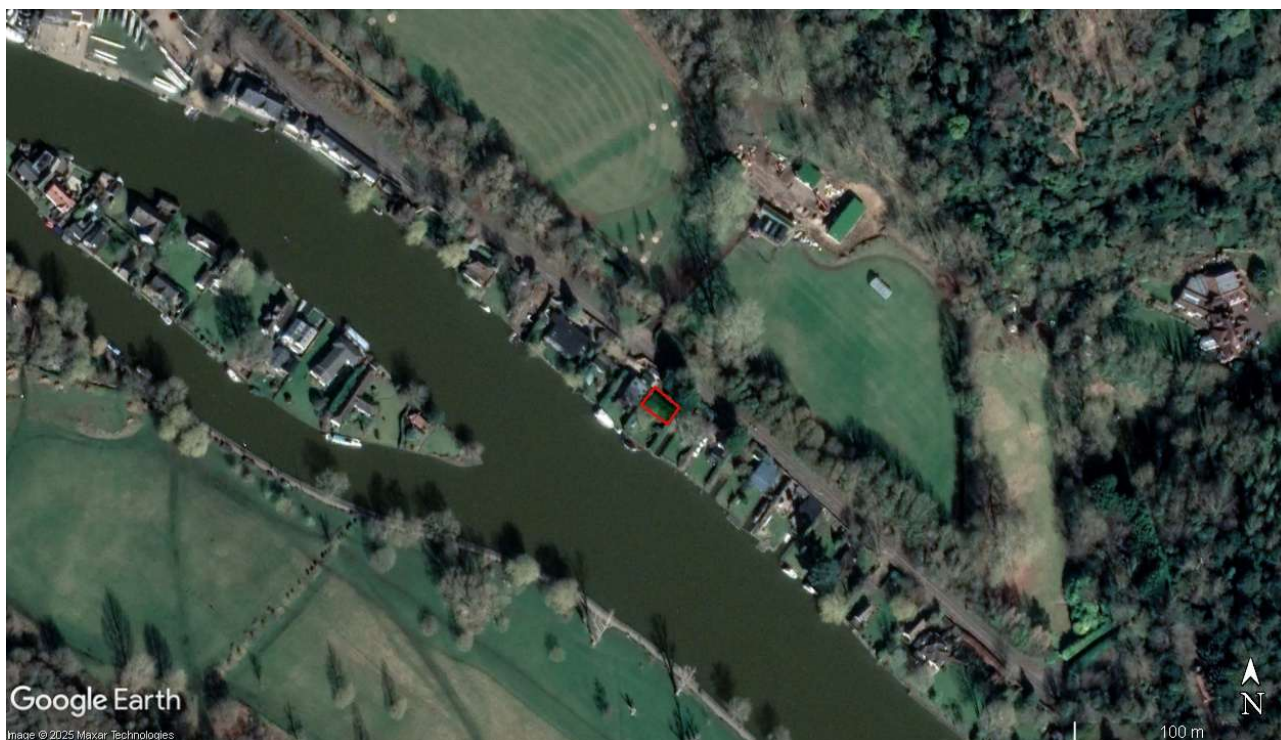


Figure 1: Location of cabin (outlined in red) (imaged dated February 2022).

Purpose of Report

The purpose of this report is to identify and describe the potential impacts of the works on bats; to identify the need for further surveys; to determine whether a Natural England protected species licence application is required in relation to bats; and to outline the mitigation, enhancement and compensation measures and any licensing requirements to ensure compliance with nature conservation legislation and planning policy, and to address any potentially significant ecological effects. The report also provides information on the legislative requirements relating to bats. In addition, impacts on other protected species are considered.

The legal protection and planning policies relevant to the species mentioned in this report are detailed in Appendix 1.

Methodology

Data search

In accordance with industry standard guidelines (CIEEM, 2016), which states that data searches may be of limited value for developments affecting single buildings/structures which are small and with low potential for bats, a data search was not obtained from the local record centre.

Reference was made to Natural England's MAGIC website for records of granted Natural England protected species licences for bats within a 1 km radius.

General

The survey was undertaken on 24th January 2025 by Anna Dudley of Swift Ecology Ltd. Weather conditions at the time of the survey are shown in Table 1.

Table 1: Survey conditions

Date	Approximate start time	Weather conditions
24/01/2025	11:00	A dry, cool (9°C) and windy morning (Beaufort F5-6), with 60% cloud cover.

Assessment of Bat Roost Potential: Building

The building was assessed for its potential to support bats or bat roosts according to industry standard guidelines (Collins, 2023). This involves a consideration of various factors including:

- Light levels
- Temperature regime and protection from weather
- Access to the interior of the building or to other suitable roost sites
- Potential roost sites
- Building construction
- Habitat context

Based on these factors, an assessment was made of whether the building might support bats, and the type and number of roosts that might be present. The building was assigned a roost potential category (Collins, 2023) according to the criteria outlined in Table 2 below, based on the results of the assessment.

Table 2: Guidelines for assessing the potential suitability of buildings/structures for roosting bats (based on Collins, 2023).

Potential Suitability	Description – Roosting habitats in structures
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only such as maternity and hibernation – the categorisation in this table is made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.

Independent of the assessment of the potential of the structure to support roosting bats, structures were also identified as ‘Confirmed roosts’ where the presence of bats was established (e.g. based on presence of bats, or evidence of use such as droppings, carcasses, etc.).

Assessment of Hibernation Roost Potential

The building was also specifically assessed for its potential to support hibernating bats which involves a consideration of various factors including:

- the suitability of features to support roosting bats or to allow access for roosting bats;
- the temperature and humidity conditions likely to be present within the structure during the winter period, and the suitability in this respect for it to be used by hibernating bats;
- the surrounding habitat in terms of its potential for use by bats outside of the hibernation period for commuting and/or foraging purposes (i.e. is it reasonable that bats are familiar with the area and therefore may be aware of suitable roosting locations within the site); and
- the presence of known roosts within the structure or adjacent structures or surrounding area during the active season.

Based on these factors, an assessment was made of whether the building might support hibernating bats following guidance provided in Collins, 2023. Winter roosting potential was assigned as either:

- 'Classic hibernation site';
- 'Non-classic hibernation site';
- 'Very limited'; or
- 'None'.

Survey for Signs of Bats

A detailed inspection was made of the exterior and interior of the building for any evidence of bat use, such as live or dead bats, droppings, scratch marks, staining and prey remains (e.g. moth or butterfly wings), and in some cases the absence of cobwebs. Large quantities of cobwebs in roof voids or at access points tend to be suggestive of no bat use, although this evidence is not conclusive.

Features identified as possible bat access points or potential roosting locations were thoroughly searched where possible, using powerful torches, binoculars and an endoscope to facilitate the process. Ladders were available to enable more detailed inspection of cracks and crevices as far as access allowed.

Other species

During the survey, the building was inspected for suitability for, or signs of, other protected or priority species.

Limitations

The Preliminary bat Roost Assessment was undertaken in good light and weather conditions; all external parts of the cabin were accessible for survey purposes. There are no access hatches to allow access into the small roof void in the rear roof slope; as no potential access points were noted during the external assessment that might allow bats access into this void, this is not considered to be a constraint to a robust assessment of the building's suitability.

A preliminary assessment cannot rule out bat presence, as bats may roost in areas that are not accessible other than by a destructive search.

Results

Data search

A search of Natural England's MAGIC website, revealed that the following licences have been granted within a 1 km radius of the site:

- 2018-34200-EPS-MIT & 2018-34200-EPS-MIT-1: Destruction of a resting place for soprano pipistrelle *Pipistrellus pygmaeus*, located roughly 850 m north-west of the site.
- 2017-31262-EPS-MIT: Resting place for soprano pipistrelle, located roughly 850 m north-west of the site.
- 2017-27806-EPS-MIT & 2017-27806-EPS-MIT-1: Damage and destruction of a resting place for brown long-eared bat *Plecotus auritus* and soprano pipistrelle, located roughly 620 m south-east of the site.
- EPSM2009-717: Destruction of a resting place for brown long-eared bat, Natterer's bat *Myotis nattereri* and soprano pipistrelle, located roughly 890 m to the south-east.

Building description

The cabin, approximately 13 m long by 7 m wide, is constructed with walls of interlocking wooden cladding (Plates 1-4). The roof is covered with roofing felt, and has a very low pitch, with the north-east side having a slope of roughly 4 degrees, and the south-west side having a slightly steeper slope, as the roof extends over the rear decking area. There is also a small, covered porch with single door on the north-east elevation (Plate 2), but there are no other windows on this or the side elevations. The south-west elevation has a large patio door and two large windows, as well as three roof lights in the south-west roof slope

(Plate 3). The cabin is raised off the ground, with wooden trellis fitted all around the gap at the base.

Internally there are no accessible roof voids. There is no void in the northern part of the building, and the slope of the internal ceiling follows that of the external roof slope (Plate 5). There is a small void up to c. 30 cm deep on the south roof slope, as the ceilings in this part of the building are horizontal and do not follow the external roof slope (Plate 6). Some external lights are present around the building; however, it is understood that these lights are very rarely used by the owners.

Assessment of bat roost potential and survey for signs of bats

The building remains in good condition and generally lacks any crevices or potential access points that bats could use as roosting locations or to enter the building. As per the original survey in 2020, only two potential features were noted during the survey. The first is a small gap between the wall and the soffit on the north-western elevation, near the northern corner of the building (Plate 7). This gap is approximately 7 cm deep, but extends for approximately 1 m along the wall; it provides limited shelter and would only be suitable for use by individual bats in summer as a day or night roost. The gap was filled with thick cobwebs at the time of the updated survey suggesting no recent use by bats, and no evidence of bat use was found in or below this feature.

The second feature is a small gap in the soffit on the south-western elevation of the property which provides access into a small void above the roof overhang that could be used by individual roosting bats (Plate 8). The entrance to this hole was covered with cobwebs suggesting no recent use by bats. No evidence of bat use was found beneath or around the entrance to this area, and inspection of this void with an endoscope found no evidence of use by bats inside.

Felt on the newer (south-western) roof slope is attached fairly loosely at the roof edges, and there are several gaps where it is coming away from the vertical roof edge. These gaps are all fairly open and do not provide the stable environmental conditions and protection from predators that bats require for roosting (Plate 4). There is a small crevice between different sections of canopy over the rear decking (Plate 9). This gap is large enough for an individual bat, but is considered unsuitable as there is a glass or plastic roof above the crevice, which means it does not provide the dark conditions favoured by roosting bats.



Plate 1: North-east elevation



Plate 2: Covered porch on north corner of cabin



Plate 3: South-west elevation



Plate 4: South-east (side) elevation



Plate 5: Sloping ceiling in northern portion of cabin



Plate 6: Horizontal ceiling and inaccessible roof void in southern portion of cabin



Plate 7: Small crevice near northern corner of the building



Plate 8: Small gap on south-western elevation of building



*Plate 9: Small crevice on south-west elevation
between sections of roof over the decking area*

Summary of suitability for bats

No evidence of bat use was recorded around the building. The building has few potential access points or roosting features and it is still considered to have 'negligible' suitability for roosting bats. Due to the small size and construction of the building, it is considered to have 'no/very limited' suitability for hibernating bats.

Other species

Bird droppings on a security camera by the front door suggests this location is occasionally used as a perch or roosting location by birds, but no evidence of nesting birds, or other protected species, was noted during the assessment of the building. The construction of the building, and its good condition, make it unlikely that it will be used by any such species in the near future.

Evaluation and Impact Assessment

No significant changes in the structure of the building were identified, and the building is still considered to have 'negligible' suitability for roosting bats during the bat active season, and 'no/very limited' suitability for hibernating bats.

No further surveys or specific mitigation or compensation measures are required.

Recommendations

Building

The building is considered to have 'negligible' suitability for roosting bats (Collins, 2023); however, the potential for occasional presence of roosting bats cannot be entirely ruled out. To avoid any breaches in legislation the following precautionary measures should be followed during the remaining works:

- All site workers will be made aware of the possibilities of finding bats and the procedure to follow should they be found during the works.
- In the unlikely event that a bat is found during the proposed works, the contractors should cease work immediately and advice should be sought from a suitably qualified ecologist. Telephone numbers of such will be held on site (01926 642541, 07825 329028 or 07786 317722).
- Should any bats fall out of structures or be injured, they will be gently placed in a secure ventilated box (e.g. a cardboard box) by the contractor and left in a cool dark place, until appropriate advice can be sought. Bats should not be handled without gloves.

Lighting

- To avoid impacts during the construction works, there should be no night-time working and no additional night-time illumination of the site.
- No new external lighting will be installed on site as part of the development and there will be no anticipated change in the amount of time existing external lighting is used once the proposals are completed.
- To mitigate the internal light spill and glare:
 - There will be no increase in the amount of glazing on the cabin as a result of the proposals.
 - Any new internal lighting will be recessed into the ceiling.
 - Any new lighting will comprise appropriate luminaires: LEDs with no UV component, a warm white light (2700 Kelvin as a maximum), and peak wavelengths higher than 550 nm.
- Please refer to '*Bats and artificial lighting at Night; Guidance Note 08/23*' (ILP, 2023) and '*Domestic exterior lighting: getting it right!; Guidance Note 09/19*' (Institute of Lighting Professionals, 2019) for further information.

Biodiversity Net Gain

The Environment Act (2021), Natural Environment White Paper (2011) and National Planning Policy Framework (2024) require that development results in net gains for biodiversity, with the Environment Act requiring a minimum of a 10% net gain in biodiversity value of the site post-development (calculated using the statutory biodiversity metric tool). Biodiversity net gain (as set out in the Environment Act 2021) is mandatory for major and minor applications. As the current proposals are a 'householder' application, it is exempt from mandatory biodiversity net gain¹; however, measures to enhance the site will be incorporated into the development to ensure it has net benefits for biodiversity.

The following measures could be incorporated into the development to enhance its value for biodiversity:

- Install at least one integrated bat box into either the south-east or north-west gable ends. Bat boxes must be placed at least 3-4 m above ground level (thus are only suitable for installation following the creation of a suitably high pitched roof), and require clear flight space around the entrance. Examples of suitable boxes are provided in Appendix 2.
- Planting of nectar rich wild and/or cultivated plants, including herbs, shrubs, climbers and trees, would attract pollinating invertebrates, including night-flying invertebrates, providing good foraging opportunities for bats. No double flowered or '*flore pleno*' cultivars will be used. Further information is provided in Appendix 2.

Validity of Report

The results of this assessment are valid for a maximum of two years from the date of the assessment (January 2025). Should the start of the project be delayed beyond this date, the survey should be updated; it should also be noted that regulatory authorities may require updated surveys within a shorter timescale.

Do not hesitate to contact me with any questions regarding the above assessment.

Yours sincerely



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¹ <https://www.gov.uk/guidance/biodiversity-net-gain-exempt-developments#householder-applications>

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Swift Ecology Ltd. (2020). *Plot 2, Riverside, Henley-On-Thames: Bat Roost Assessment*. Report reference C2507-1; dated 12th June 2020.

Swift Ecology Ltd. (2023). *Plot 2, Riverside, Henley-On-Thames: Updated Bat Roost Assessment*. Report reference C2507-2 v1; dated 7th September 2023.

APPENDIX 1 – LEGISLATION AND PLANNING POLICY

A1.1 Introduction

This section briefly lists legal protection/planning policy applying to designated sites, species or habitats mentioned in this report. It does not comprehensively reflect the text of the legislation/policy and it should not be relied upon in place of it. The following documents are relevant:

- The Local Government Act 1985;
- The Wildlife and Countryside Act 1981 (as amended);
- The Environmental Protection Act 1990;
- The Countryside and Rights of Way (CROW) Act 2000 (in England and Wales);
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Conservation of Habitats and Species Regulations 2017, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
- Environment Act 2021;
- The Town and Country Planning Act 1990, Schedule 7A (as inserted by Schedule 14 of the Environment Act 2021);
- The Natural Environment White Paper (England) (DEFRA, 2011);
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services (DEFRA, 2011), which underpins the UK Post-2010 Biodiversity Framework (JNCC and DEFRA, 2012);
- National Planning Policy Framework (MHCLG, 2024); and
- Wokingham Borough Council Core Strategy (Adopted 2010).

A1.2 Bats

All species of British bat (Vespertilionidae and Rhinolophidae) are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), and receive some limited protection under Section 9. These species are also all listed as protected species in Schedule 2 of The Conservation of Habitats and Species Regulations 2017, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which gives them full protection under Regulation 43.

It is also an offence to set and use articles capable of catching, injuring or killing such species (for example a trap or poison), or knowingly cause or permit such an action.

The seven species of British bat are listed as species of principal importance for the purpose of conserving biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

APPENDIX 2: ENHANCEMENTS

Bat boxes

To provide roosting features on site, where there are currently none, bat boxes could be integrated into either gable end (or both), as the boundary hedges are currently no higher than the cabin's eaves. Bat boxes must have clear flight space in front of the entrance otherwise bats cannot safely enter and leave.

Bat boxes should be placed at least 3-4 m above ground level, ideally more, and they must not be illuminated by artificial lighting at night.

It is best to use bat boxes that can be integrated into the wall of the building, as they have no maintenance requirements and will last for the lifetime of the building. Many of these boxes can be faced with cladding, and thus are barely visible. Examples of suitable boxes include:

- Habibat Bat Boxes with Bespoke Facing (e.g. 001, 2S or 3S): <https://www.habibat.co.uk/bat-boxes>
- Schwegler 1FR bat tube <https://www.nhbs.com/1fr-schwegler-bat-tube>
- Vivara Pro Build-in Woodstone Bat Tube <https://www.nhbs.com/ib-vl-05-vivara-pro-build-in-woodstone-batbox?bkfno=252213>



Figure A2.1 (from left to right): Habibat 001 Bat Box Bespoke Facing, Schwegler 1FR bat tube and Vivara Pro Build-in Woodstone Bat Tube

Wildlife-friendly planting

- Native plants generally support far more species of insect than hybrids or exotics, so they should be used as much as possible.
- Planting a variety of different species, including herbaceous plants, shrubs, small trees and climbers will attract a wider range of invertebrates, especially when the suite of species selected provide flowers throughout the year.
- White or pale flowers are more attractive to evening and night-flying insects.
- Choose flowers with different flower shapes to attract different species. Plants in the daisy and carrot families have flowers on which insects can land, and can be more attractive to some species.
- **No double flowered or 'flore pleno' cultivars will be used**, as such species provide little or no pollen and nectar.
- **Avoid the use of pesticides.**
- A list of suitable species can be found at: <https://cdn.bats.org.uk/uploads/pdf/Resources/Encouraging-Bats.pdf?v=1646658894>