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Phase 1 bat and nesting bird survey & Phase 2 bat emergence survey report

Site: 111 Egloshayle Road,
Wadebridge,
Cornwall,
PL27 6AG

For: Mr. & Mrs. Hughes

Report prepared by: Richard Bates, ACIEEM, BSc (Hons).

August 2023

	Name	Date	Signature
Report prepared by:	Richard Bates, BSc ACIEEM	29.08.23	

This report was prepared by Devon & Cornwall Ecology at the instruction of the named clients. It should be noted that whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment. Devon & Cornwall Ecology accepts no responsibility to third parties whom use this report or any part thereof. Any such party uses this report at their own risk.

PLEASE NOTE: The contents of this report are based on the latest survey data. Should a period of more than 12 months pass between the issuing of this report and work commencing on a project, an update survey of the site may be required.

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Executive Summary

Survey date:	13th June 2023
Phase 2 emergence:	16th August 2023
Location:	111 Egloshayle Road, Wadebridge
Grid Reference:	SW 99896 72005
Surveyor:	Richard Bates, ACIEEM BSc, bat licence ref: 2017-30400-CLS-CLS

Devon and Cornwall Ecology was commissioned to undertake a phase 1 bat survey of a residential property on behalf of the clients, Mr. & Mrs. Hughes. The survey was undertaken to support a planning application to extend the building and re-hang slates on the exterior.

A full internal and external inspection of the building was conducted on the 13th June 2023, looking for signs of use by bats and/or nesting birds. The survey was conducted in suitable weather conditions and in line with guidance available in *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins *et al*, 2016).

The survey identified **moderate** potential beneath external crevice features. As suitable roosting opportunities are present, further survey work was recommended and commissioned.

One emergence survey was undertaken in suitable conditions in August 2023. No bats were recorded emerging from the building and only low-level bat activity was noted during this survey. Given the lack of significant bat activity in the area and abundant presence of street lighting, the surveys were concluded after this survey.

No further survey work is required for this development, but **a simple precautionary approach to the development has been recommended in section 5.**

Nearby linear features (walls and hedgerows) were assessed as having **low** potential to support foraging and commuting bats. The proposed development will not impact on these features directly, but may result in disturbance through additional artificial lighting. **Recommendations have been made in section 5** to minimise this disturbance.

No nesting birds were recorded and no further survey work is required regarding birds.

1. Introduction

Devon & Cornwall Ecology were commissioned to undertake an initial phase 1 bat and nesting bird survey and a subsequent phase 2 emergence survey on a residential building at 111 Egloshayle Road, Wadebridge. The survey was undertaken to support a planning application to extend the property and re-hang slate hanging tiles. The survey was undertaken by Ecologist Richard Bates BSc (Hons) who is an experienced field ecologist and consultant with a licence to survey for bats (2017-30400-CLS-CLS, Level 2). Subject to a Professional Code of Conduct, Richard is an Associate Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

The site is under the ownership of the clients, Mr. & Mrs. Hughes, and is in an urban setting in Egloshayle, a suburb of the town of Wadebridge. In its immediate setting the site is bordered by residential properties to the east and west and by urban roads to the north and south.

In the wider landscape, the site is located on the southern edge of the village of Egloshayle. The habitats surrounding the site are of limited favourability for bats; extensive urban development is present to the north, east and west with the A389 present approximately 350m to the east. Habitats to the south are more favourable, with the River Camel watercourse and floodplains providing potential commuting and foraging opportunities, although these are without significant linear features, such as woodland edge and hedgerows. A network of urban roads with significant artificial lighting is present across the landscape, including directly adjacent to the southern boundary of the site. This lighting in particular presents significant barriers to many bat species. Overall the site has restricted connectivity to wider landscapes and limited potential to support bats.

Wider landscape view of 111 Egloshayle Road(Google Earth Pro).	Approximate site location

Site layout at 111 Egloshayle Road (Google Earth Pro).	Approximate outline of existing building

2. Species records and desktop survey

A data search of records from the local biological records centre has not been undertaken for this site. The phase 1 survey identified potential for roosting bats to be present, but subsequent phase 2 emergence surveys did not record the presence of any roosts. It is considered unlikely that a data search of local records would provide any additional information at this juncture.

However, a search of publicly available records returned instances of Noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), brown long-eared (*Plecotus auritus*), and lesser horseshoe (*Rhinolophus hipposideros*) within 2km of the site.

A search of granted European Protected Species licences (through the Natural England *Magic Map* website) returned one record of a bat licence being issued within 2km of the site. This licence was issued for a roost comprising greater horseshoe (*Rhinolophus ferrumequinum*) and lesser bats. The licence is recorded as affecting resting places for these species only and is located on the opposite side of Wadebridge.

3. Methodology

Equipment

- Camera
- Binoculars
- Ladder
- Endoscope

The bat survey consisted of a full internal and external inspection of the building due to be affected by the proposed works. The survey method consisted of searching for evidence of bats, including bat droppings, corpses, scratch marks, urine staining, grease marks and clean cobweb free areas. Particular attention was paid around potential access points, attic spaces (where accessible) and crevice roosting features within each structure and on its outside. Binoculars were used to assess potential crevice features. Bats do make audible squeaks and these were listened out for by the surveyor during the survey. The methodology used to search this site is consistent with the guidelines provided in the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins *et al*, 2016). The building was assessed for their potential to support roosting bats based on the criteria set out in Table 1 below:

Table 1 - Criteria for assessing bat roosting potential of buildings and trees

Confirmed Roost	Evidence of bat occupation found, including live bats, droppings, corpses, grease and/or scratch marks and urine staining.
High Roosting Potential	Buildings or trees with significant roosting potential, either because they contain a large number of suitable features or the features present appear optimal due to their size, shelter, conditions and surrounding habitat.
Moderate Roosting Potential	Buildings or trees with one or more potential roosting features that may be used by bats but are unlikely to support a roost of high conservation status.
Low Roosting Potential	Buildings or trees with few features that may be used opportunistically by bats but are unlikely to be used on a regular basis due to the size, location, conditions and/or suitability of nearby habitat.
Negligible Roosting Potential	Buildings and trees with negligible suitable features and poor quality surroundings.

The site was also assessed for potential to support commuting and foraging bats, based on the criteria set out in Table 2 below, adapted from the *Good Practice Guidelines* (Collins *et al*, 2016):

Table 2 - Criteria for assessing bat commuting and foraging habitats

Suitability	Description of habitats
Negligible	Negligible commuting features on site and/or unsuitable foraging features, such as large areas of hard standing.
Low	Habitats that could be used by small numbers of commuting bats, such as gappy hedgerows or sites with limited connectivity to the wider landscape. Suitable but isolated foraging habitat that could be used by small numbers of bats, such as small patches of scrub or lone trees.
Moderate	Continuous commuting habitats connected to the wider landscape, such as a line of trees and scrub or linked residential gardens. Habitat that can be used for foraging and is connected to the wider landscape, such as trees, scrub, grassland and water.
High	Continuous, high quality habitat with good connectivity to the wider landscape. This would include features such as watercourses, river valleys, hedgerows and woodland edges. High quality foraging habitat that well connected to the wider landscape and likely to be used regularly by bats, such as broadleaved woodland, tree lined watercourses, grazed parkland or sites that are close to and/or connected to known roosts.

A summary of legislation relating to bats can be found in Appendix 1 of this report.

4. Results

4.1.1 Bats and nesting birds – residential building B1

The survey noted the following about the disused outbuilding:

Photograph 1– View of the south aspect of the building.

External

- The building is a two storey semi-detached cottage with an existing two storey extension and a single storey lean-to structure. The proposals include the construction of a single storey extension to tie-in at the eaves of the north aspect.
- The majority of the building is a stone construction with a pitched roof. Slate and fibre cement roof tiles and concrete ridge tiles are present. These are in mostly good condition with a few small gaps noted beneath ridge tiles. However, these features are unaffected by the proposed development and unlikely to be disturbed during works.
- The lean-to structure has a mono-pitched slate roof with a lead seal. Small gaps were noted beneath the lead flashing but are considered too small and shallow to be used by bats.
- One chimney is present on the main roof. This is lead sealed with no significant gaps noted around the seal.
- Holes were noted in the stonework/brickwork and beneath slate bargeboards on the east gable end. The were assessed as having **moderate** potential for bats but are located outside of the proposed work area. Nevertheless, these features were observed during subsequent surveys.
- Wooden soffits and uPVC guttering is present and in good condition. No holes are present in the soffits. No gaps were noted behind the guttering.
- The south and part of the east aspect of the building are covered with hanging slate tiles. These tiles are in need of refixing, with multiple gaps noted beneath slipped, crooked or missing tiles. Given the overall urban environment, these were assessed as having **moderate** potential only.

- uPVC window and door frames are present. These are in good condition with no gaps around the frames.

Photograph 2– View of the building interior.

Internal

- The building has a small internal void with a maximum approximate height of 1.5m and 3.5m in width. The height drops from 1.5m to approximately 1.2m for the majority of the void space.
- The void has a traditional roof structure with a ridge beam and purlin supports. The internal space was noted as being lightly cobwebbed throughout.
- Bituminous felt is present and in good condition. No holes were noted.
- The void is insulated. This insulation was noted as being dusty but otherwise clean. No evidence of bats was recorded.
- The void is heavily cluttered with stored items. These could be checked and no evidence of bats was recorded on the items.

4.2 Phase 2 bat emergence surveys

As moderate potential for bats was identified during the phase 1 bat survey, two phase 2 emergence survey were recommended and commissioned for the building. However, due to the low level of bat activity and extensive artificial street lighting initially recorded, the survey effort was concluded after one survey. The full result of the survey is presented below. The position of the surveyor and equipment is illustrated in the figure below.

During the survey the surveyor and recording equipment were positioned to watch all potential access points for bat emergence or re-entry. As no potential bat features were recorded on the north aspect in the proposed work area, the focus of the survey was the hanging slate tiles on the south aspect and small

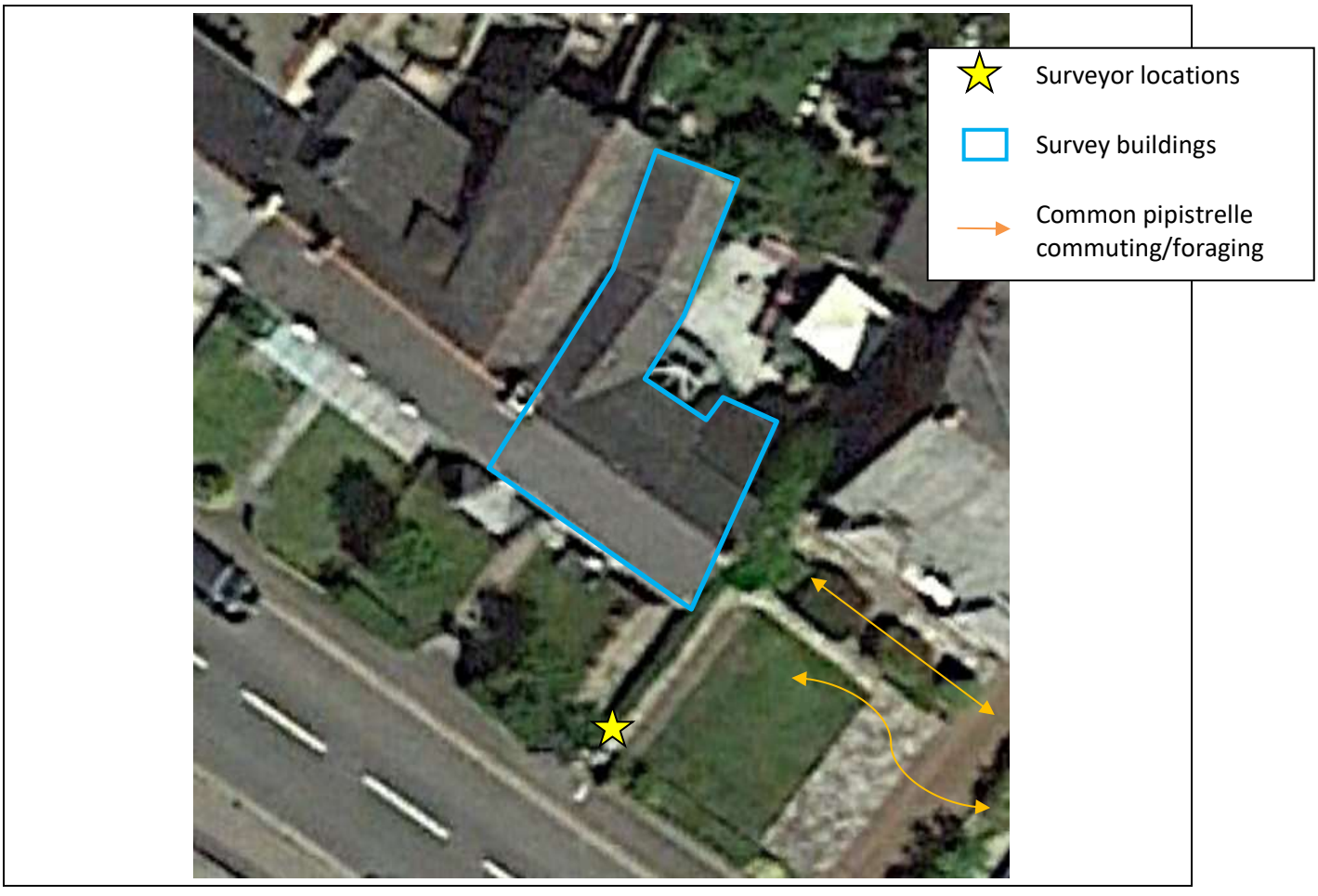
holes on the east aspect. The survey was undertaken by ecologist Richard Bates, licence ref: 2017-30400-CLS-CLS using Echo Meter Touch 2 bat detectors. The surveyor was positioned to record activity from and around the building. The survey was undertaken in suitable conditions and in line with guidance available in the *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016).

Dusk on 16th August 2023

Building activity:
No bats were recorded emerging from the buildings or any nearby structures.

General activity:
Limited bat activity was recorded during the survey. The first common pipistrelle pass was recorded at 9:15pm, 38 minutes after sunset, with occasional foraging activity then recorded during five individual passes until 9:39pm. A single Noctule pass was recorded earlier at 9:09pm. No other passes were recorded. All observed passes were recorded in the gardens east of the building.

Figure 1 – Bat activity and surveyor location during the emergence survey on 9th May, 2023



The low overall activity suggests the site is a primarily a location for individual common pipistrelles, with the bats using nearby boundary features as brief foraging opportunities and as a commuting pathway to alternative foraging sites. It is possible that other bat species frequent the site but were not recorded during the survey. The lack of detections suggests any such presence is likely to be occasional and of low importance. As no bats were recorded emerging from the structure, no further surveys are required for this development. However, a simple precautionary approach has been recommended in section 5.

4.3 Bats – Commuting and Foraging

Nearby hedgerows and built structures (fences and walls) along the site boundaries and neighbouring properties were assessed as having **low** foraging and commuting opportunities for bats, based on guidance summarised in Table 2. However, the proposed development is for a small scale extension of the site and will be designed to be complementary to its surroundings. All boundary features will remain intact and fully accessible for foraging bats both during and post-construction.

Recommendations have been included in section 5 to minimise disturbance to foraging and commuting bats. Provided these recommendations are adopted, it is unlikely that the proposed development will have any significant impact on bat foraging or commuting.

Survey Constraints
No significant constraints were noted during the surveys.

5. Recommendations

5.1 Bats

Phase 1 and phase 2 bat surveys have been undertaken at the site, in line with available guidance where possible. The surveys suggest it is unlikely that bats or bat roosts are present and no further survey work is required.

However, bats do move around and can adopt new roosts. Although it is unlikely that bats will adopt this structure, a simple precautionary approach will be undertaken:

- All roof tiles and hanging tiles will be removed by lifting them from the batons or ridge. The tiles will not be slid from the roof as this can cause accidentally crushing injuries if bats are present. The reverse side of all tiles will be inspected to ensure no bats are present. Should bats be encountered during this process, all work will cease immediately and a licensed ecologist will be consulted.
- All bargeboards and/or soffits will be carefully dismantled using hand tools. The reverse of each board will be inspected for bats before being lowered to ground level. Should bats be encountered all work will cease immediately and a licensed ecologist will be consulted.
- If a bat is discovered during any other works at the site, all works will cease immediately and a licensed ecologist will be consulted. This advice may include leaving the bat to disperse of its own accord or waiting for the licensed handler to arrive and move the bat. Builders and contractors are explicitly forbidden from handling bats.

5.2 Bats – Foraging and commuting

Bats are sensitive to artificial lighting, which can draw insect prey away from potential foraging areas while simultaneously discouraging bats from foraging and disrupting commuting routes. Currently a lighting plan is unavailable for the development. However, in order to preserve commuting and foraging opportunities, all new exterior lighting will incorporate the following (where applicable) to minimise the potential for light disturbance:

- Work on site will be limited to daylight hours only. No artificial use of lighting will be used for the proposed development during the hours of darkness.
- External lighting used to illuminate any building entrances will use motion sensors. The use of sensors will reduce the amount of time the lights are on to only when needed.
- All external lights will be angled downwards and away from the site boundaries. The spread of light from these sources will be minimised by using hoods or cowls to limit light spill to below the horizontal, in line with guidance available in *Landscape and urban design for bats and biodiversity* (Gunnel, Grant, & Williams, 2012).
- Any required footpath lighting will consist of ground level bollard-style lighting or poll mounted lighting where an incorporated hood will direct the light downwards and away from the nearby foliage and commuting features. For either design, lighting will be restricted to providing 3 lux or less at ground level, in line with guidance available in *Bats and Lighting in the UK: Bats and the Built Environment Series* (Bat Conservation Trust, 2008).
- Where available, external lighting will incorporate LED luminaires or narrow spectrum bulbs that emit minimal ultra-violet light, as recommended in guidance from the Bat Conservation Trust & Institute of Lighting Professionals (2018) and the Bat Conservation Trust (2008) respectively. This will avoid attracting insects to lit areas, maintaining the availability of those insects for foraging bats.

6. References

Bat Conservation Trust (2008). *Bats and Lighting in the UK: Bats and the Built Environment Series*. Bat Conservation Trust.

Bat Conservation Trust & Institute of Lighting Professionals (2018). *Bats and Artificial Lighting in the UK*. https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting

Collins, J., Charleston, P., Davidson-Watts, I., Markham, S. and Kerslake, L. (2016). *Bat Surveys for Professional Ecologists Good Practice Guidelines*. Bat Conservation Trust, London.

Gunnel, K., Grant, G., and Williams, C., (2012). *Landscape and urban design for bats and biodiversity.* Bat Conservation Trust.

Natural England (2020). *Magic Map*. Available at:
http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx [Accessed 29.08.23]

Appendix 1: Legislation (summary)

Wildlife Protection legislation

This appendix details the legislation relevant to the protection of species and habitats. It also details the relevant policies within national, regional, and local planning policy.

National Planning Policy Framework (2018)

The National Planning Policy Framework (NPPF) is the Government's vision for biodiversity in England and is considered by local councils during all planning applications where development is proposed. The NPPF has a broad aim that any construction, development or regeneration proposals should maintain and enhance biodiversity, with the aim of securing biodiversity enhancements for all developments in order to facilitate sustainable development.

Biodiversity Action Plans (BAPs): BAPs set out policy for protecting and restoring priority species and habitats as part of the UK's response as signatories to the Convention on Biological Diversity. BAPs operate at both a national and local level with priority species and habitats identified at a national level and a series of Local BAPs that identify ecological features of particular importance to a particular area of the country. The requirement to consider and contribute towards BAP targets was strengthened through the **Countryside and Rights of Way (CRoW) Act 2000**. Although now superseded by other legislation, the lists drawn up under the BAPs are still valuable reference sources on local and national wildlife priorities.

Natural Environment & Rural Communities (NERC) Act (2006)
The NERC Act 2006 amends the above mentioned CRoW Act, obliging local authorities to include biodiversity considerations in their duties, including in consideration of planning applications. Under Section 41 of the Act, this consideration is based on lists of organisms and habitat types deemed to be of principal importance to in conserving biodiversity. These lists are primarily based on lists created for the UK and local authority BAPs.

Mammals:

Otters, dormice, water voles, and **all bat species** are fully protected under section 9 (5) of the Wildlife and Countryside Act 1981 (as amended). According to this act it is an offence to:

- Intentionally capture, kill or injure one of these animals
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used by one of these animals for shelter or protection
- Intentionally or recklessly disturb an animal whilst it is using this place
- sell, offer for sale or advertise for one of these animals live or dead

Designated as European Protected Species' **otters, dormice,** and **all bat species** receive additional protection from the Conservation of Habitats and Species Regulations 2010, under Schedule 2 which implements the EC Directive 92/43/EEC in the United Kingdom. In accordance with this act, it is an offence to:

- Deliberately capture or kill a European Protected Species
- Deliberately disturb a European Protected Species

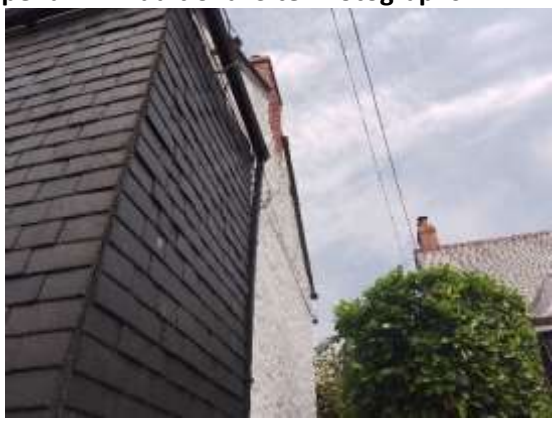
- Damage or destroy the breeding site or resting place of a European Protected Species

The **greater and lesser horseshoe bats**, **barbastelle** and **bechstein's bats**, are also listed under Schedule 2 of the Conservation of Habitats and Species Regulations. Areas which support populations of these species can therefore be considered for designation as a Special Areas of Conservation **(SACs).**

Birds:

Please Note: All breeding birds and their nests are protected under the general protection of Section 1 of the Wildlife and Countryside Act, 1981 as amended. This makes it an offence to disturb breeding birds.

Appendix 2: Additional Site Photographs



Photograph 1 – View of the east aspect of the building

Photograph 2 – View of the north aspect.

Photograph 3 – View of the hanging tiles.