

Bat emergence surveys
20 Egloshayle Road, Wadebridge, Cornwall
September 2020

A report by

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Report details

Site address: 20 Egloshayle Road, Wadebridge, Cornwall, PL27 6AD
Grid reference: SW757260
Report date: 20th October 2020
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Report no: WOR 1688

Declaration of compliance

BS 42020:2013

This study has been undertaken in accordance with British Standard 42020:2013 Biodiversity, Code of practice for planning and development.

Code of Professional Conduct

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Validity of survey data and report

The findings of this report are valid for 12 months from the date of survey. If a European Protected Species Licence application has not been made within this period, updated surveys by a suitably qualified ecologist are likely to be required to support a licence application.

Non-technical summary

Western Ecology was commissioned in September 2020 to complete a preliminary visual assessment for bats and breeding birds of 20 Egloshayle Road, Wadebridge, Cornwall, PL27 6AD. The preliminary roost assessment found the following:

“Evidence of previous use of the site by bats was found. A small number of bat droppings, likely to be pipistrelle species, were found on fibreglass insulation in the roof void. These were near chimney brickwork, beneath a gap in the roof where there is missing mortar”

To allow full characterisation of the site for roosting bats, further surveys were recommended.

Emergence surveys were carried out in September 2020 during which time it was found that:

- At least 1 common pipistrelle is day roosting in association with the building.

Without mitigation, works associated with the chimney have the potential to disturb, injure or kill small numbers of day roosting common pipistrelle bats.

Development of the extension will not lead to the loss, damage or obstruction of this roost, nor will it lead to harm to this bat. However, works on the extension have the potential to disturb bats roosting in association with the main roof of the house. This may be considered an offence under relevant legislation.

In the long term, works to, or removal of, the chimney would lead to the loss of the following roosts:

- Common pipistrelle day roosts used by at least 1 bat.

To proceed legally, these activities would require a Mitigation licence for European Protected Species with a supporting method statement to protect bats during the process.

This licence will need to be supported by a detailed mitigation strategy to ensure that bats are not killed or injured during the process, and to make sure alternative roosting opportunities are created. This will include the provision of new roost facilities that will be based on species requirements.

Full site-specific details will be required for the EPS licence application and method statement. These will include:

- Alternative temporary roosting provision;
- New roosting provision within the finished development;
- Lighting;
- Ecological Watching Brief (EcoW);

Table of contents

1. Introduction	5
1.1. Background.....	5
1.2. Site description	5
1.3. Proposed works	6
1.4. Survey aims	7
2. Methods	8
2.1. Dusk emergence surveys.....	8
2.2. Desktop search	9
3. Results.....	10
3.1. Bat emergence surveys	10
3.2. Summary of bat survey results, interpretation and evaluation	10
4. Assessment	12
4.1. Survey constraints.....	12
4.2. Assessment of potential impact on bats	12
4.3. Legislation.....	12
5. Recommendation and mitigation	14
5.1. Timings of works	14
5.2. Alternative temporary roosting provision	14
5.3. New roosting provision within the finished development.....	15
5.4. Lighting	15
5.5. Ecological Watching Brief (EcoW)	16
5.6. Post development monitoring	16
References	17

1. Introduction

1.1. Background

Western Ecology was commissioned in September 2020 to complete a preliminary visual assessment for bats and breeding birds of 20 Egloshayle Road, Wadebridge, Cornwall, PL27 6AD. The preliminary roost assessment found the following:

“Evidence of previous use of the site by bats was found. A small number of bat droppings, likely to be pipistrelle species, were found on fibreglass insulation in the roof void. These were near chimney brickwork, beneath a gap in the roof where there is missing mortar”

To allow full characterisation of the site for roosting bats, further surveys were recommended.

This report documents this further survey work and provides a full assessment of roosting bats. This report also provides an outline of the required mitigation to allow development associated with this structure to proceed in a lawful manner.

This survey has been prepared in accordance with the Bat Conservation Trust’s “Bat Surveys Good Practice Guidelines” (Collins, 2016).

1.2. Site description

The property at 20 Egloshayle, Wadebridge is in an urban setting within Wadebridge, in North Cornwall (Plan 1a and b). Residential gardens with associated habitats are present in the immediate surrounds and to the south, 100m, lies the River Camel. Across the river lies an area of open amenity grassland and further urban development. 500m east lies a small woodland which leads into open farmland.

Further afield Wadebridge is surrounded by large expanses of open, managed farmland, small woodland and hedgerows and are likely to provide good potential for foraging and commuting bats in the area.



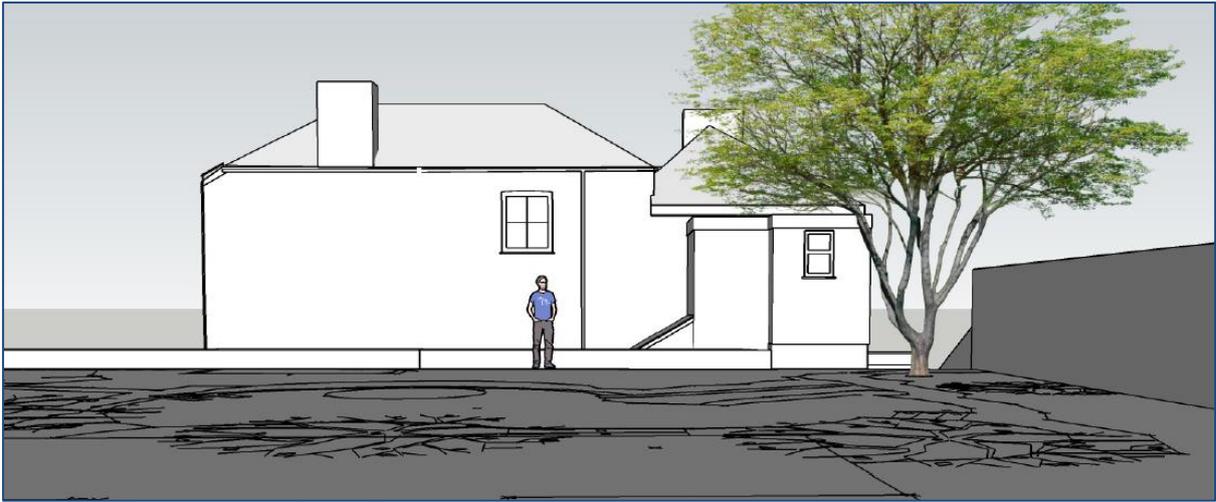
Plan 1a. The location of the building surveyed



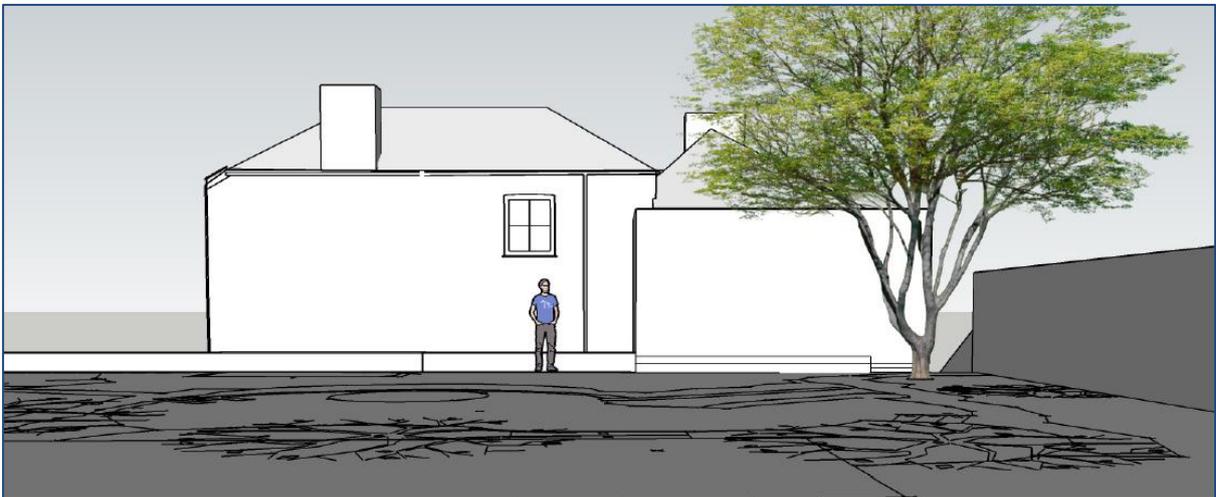
Plan 1b. The building surveyed at this site

1.3. Proposed works

Works will be carried out to either remove an interior section of the chimney (with additional support works in that area of the roof void) or remove the chimney entirely. An extension will be added to the north-east aspect (Plan 2a and b). There may be some flashing in association with the new flat roof at the Northern end which may require some temporary slate stripping of the bottom slate courses before being reinstated.



Plan 2a. North-east aspect - Existing



Plan 2b. North-east aspect - Proposed

1.4. Survey aims

The purpose of this survey is to determine, with confidence, if bats are present at the property, and if so, to provide evidence on which to base mitigation.

The survey will also determine if a European Protected Species licence will be required to allow the proposed development to proceed lawfully.

2. Methods

2.1. Dusk emergence surveys

These surveys consist of a sufficient number of experienced bat surveyors monitoring a built structure for bat activity. BatBox Duet heterodyne bat detectors and an Echo Meter Touch time expansion bat detector, attached to a Huawei P20 tablet running the Echo Meter app, are used during the surveys. The surveyors, including at least one licenced bat ecologist, are stationed around the building in such a way that any bat leaving or entering the structure is likely to be observed (Plan 3). The survey normally begins 15 minutes before sunset and continues until at least 90 minutes after sunset or when light levels are so low that any emerging bats cannot be seen.

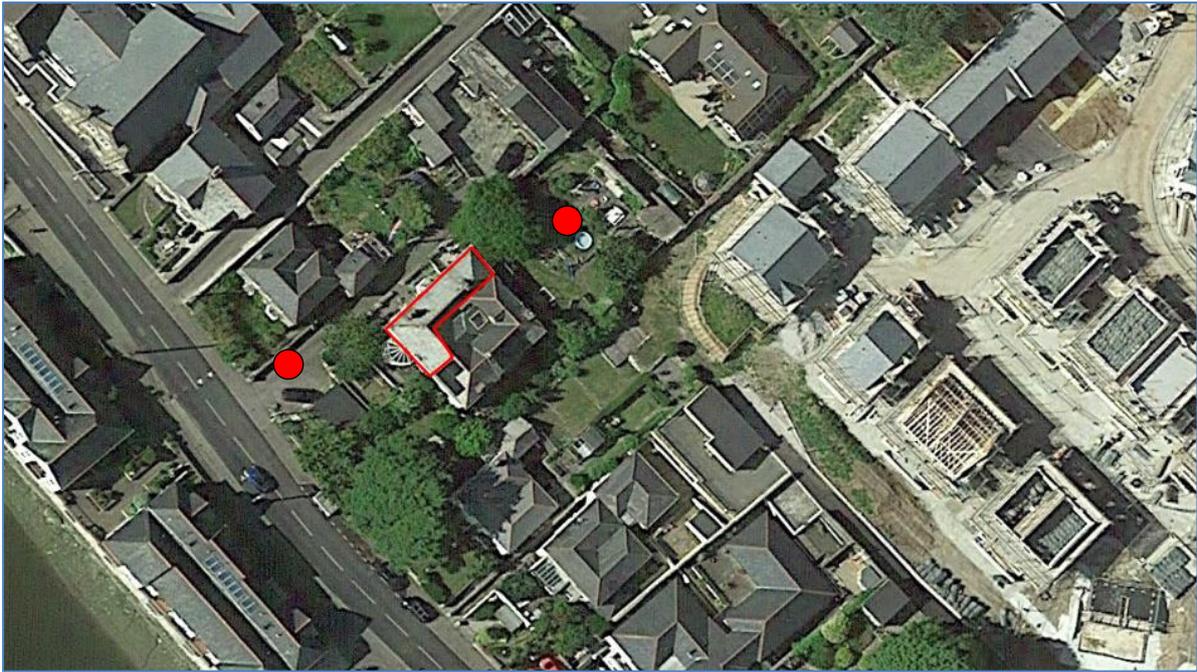
This survey methodology complies with guidelines produced by the Bat Conservation Trust (Collins, 2016).

Table 1. Emergence survey details

Date of each survey visit	Start and end times and time of sunset	Structure reference / location	Equipment used (include make of bat detectors and logging equipment)	Weather – (Include start and end temps, precipitation, Beaufort wind scale etc)	Comments (to include # of surveyors used for each visit):
11/09/2020	Sunset 19:39. Survey 19:24 to 21:10	20 Egloshayle	EMT2 + Huawei P20 tablet, Batbox Duet	Calm, clear, dry, start 18°C finish 16°C	2 surveyors: John Blackburn, Arlin Slater,
27/09/2020	Sunset 19:05. Survey 18:50 to 20:35	20 Egloshayle	EMT2 + Huawei P20 tablet, Batbox Duet	Calm, clear, dry, start 16°C finish 14°C	2 surveyors: John Blackburn, Arlin Slater,

Table 2. Surveyor details

John Blackburn, Natural England licence no: 2019-39576-CLS-CLS with 9 years of bat survey experience.
Arlin Slater has 5 years of bat survey experience.



Plan 3. The location of surveyors for both surveys (red dots).

2.2. Desktop search

A biological records search was not considered appropriate due to the highly mobile nature of bats. It is assumed that all species of bat that are present in Cornwall could be active within the vicinity which includes Barbastelle, Serotine, Noctule, Lesser Horseshoe, Greater Horseshoe, Common Pipistrelle, Soprano Pipistrelle, Nathusius Pipistrelle (very rare), Whiskered, Brandt's, Natterer's, Daubenton's, Brown Long-eared and possibly Grey Long-eared.

It is very unlikely when considering the location and structure being assessed that a data search would provide further meaningful information.

If a European Protected Species licence is required for this site, a biological records search for bats will be completed with the local records centre to support the licence application.

3. Results

3.1. Bat emergence surveys

1st Emergence survey

Completed: 11th September 2020.

During the survey 1 common pipistrelle (20:02) emerged from the building from around the chimney area. Roost locations are detailed in plan 4 and table 4. Bats were recorded throughout the survey, the bat emerging being the first contact. Other species recorded include a noctule at 19:48 flying above the river to the south.

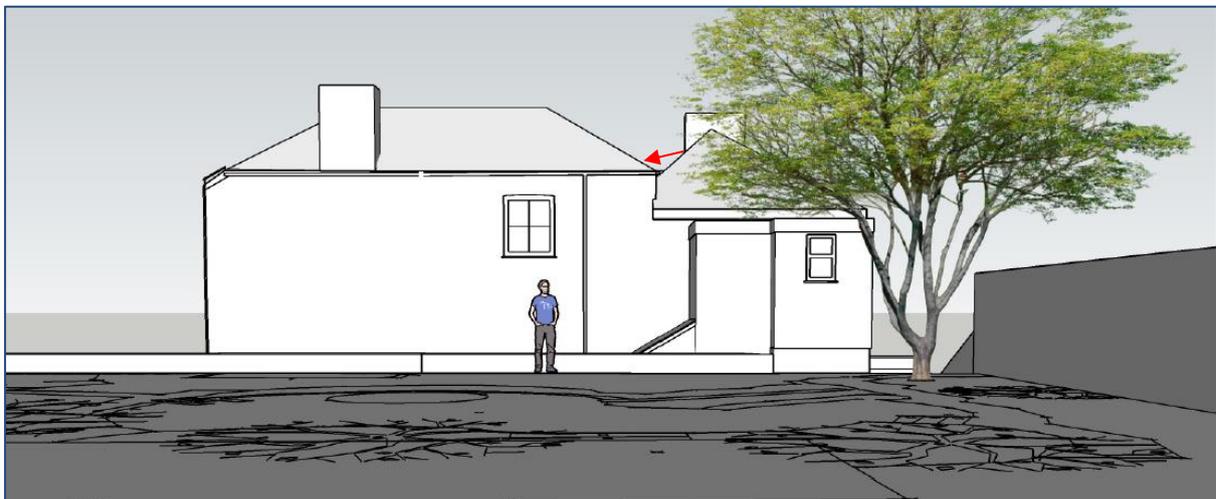
2nd Emergence survey

Completed: 27th September 2020.

No bats emerged from the building. Common pipistrelle were recorded foraging in the front garden at 20:03 and again at 20:13. A single noctule pass to the south was recorded at 19:24

3.2. Summary of bat survey results, interpretation and evaluation

Species, numbers of bats, roost locations, roost descriptions and interpretation, conservation significance (Mitchell-Jones, 2004) and roost value (Wray et al, 2010) are summarised in plan 4 and table 4.



Plan 4. North-east aspect – existing. Location of emerging common pipistrelle (red arrow) during 1st emergence survey.

Table 4. Summary of results from emergence surveys.

Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions of existing roosts or explanation of where the roost is	Roost Conservation significance (Mitchell-Jones, 2004)	Roost Value (Wray et al, 2010)

1 x common pipistrelle	Day roost	20 Egloshayle Road	Chimney on south facing aspect	1	Crevice roost in association Missing mortar around chimney	Low	Local importance
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4. Assessment

4.1. Survey constraints

The initial assessment and emergence surveys were completed at an optimal time for such surveys (Collins, 2016).

The dissimilar results between surveys are a result of roost switching by common pipistrelle bats.

All areas of the building could be readily observed during the dusk emergence surveys, and all equipment functioned correctly for the period of the surveys.

It is the professional opinion of the surveying ecologist that the initial bat assessment, in combination with the bat emergence surveys provides sufficient information in relation to bats to allow the decision-maker to determine the planning permission. Further survey work would not make any material difference to the information provided.

4.2. Assessment of potential impact on bats

Emergence surveys were carried out in September 2020 during which time it was found that:

- At least 1 common pipistrelle is day roosting in association with the building.

Without mitigation, works associated with the chimney have the potential to disturb, injure or kill small numbers of day roosting common pipistrelle bats.

Development of the extension will not lead to the loss, damage or obstruction of this roost, nor will it lead to harm to this bat. However, works on the extension have the potential to disturb bats roosting in association with the main roof of the house. This may be considered an offence under relevant legislation.

In the long term, works to, or removal of, the chimney would lead to the loss of the following roosts:

- Common pipistrelle day roosts used by at least 1 bat.

To proceed legally, these activities would require a Mitigation licence for European Protected Species with a supporting method statement to protect bats during the process.

4.3. Legislation

Bat species and their breeding or resting places (roosts) are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended). They are identified as European Protected Species. Under these laws it is an offence to:

- capture, kill, disturb or injure bats (on purpose or by not taking enough care);

- damage or destroy a breeding or resting place (even accidentally);
- obstruct access to their resting or sheltering places (on purpose or by not taking enough care); or
- possess, sell, control or transport live or dead bats, or parts of them.

Seven species of bat are listed as being of principal importance, in the Secretary of State's opinion, for the purposes of conserving biodiversity. Under section 41 (England) of the NERC Act (2006) there is a need for these species to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity.

These seven bat species are barbastelle, Bechstein's, noctule, Soprano pipistrelle, brown long-eared, greater horseshoe and lesser horseshoe and are the subject of National and Local Biodiversity Action Plans.

Activities that can affect bats (from GOV.UK)

Activities that can affect bats include:

- renovating, converting or demolishing a building
- cutting down or removing branches from a mature tree
- repairing or replacing a roof
- repointing brickwork
- insulating or converting a loft
- installing lighting in a roost, or outside if it lights up the entrance to the roost
- removing commuting habitats such as hedgerows, watercourses or woodland
- changing or removing their foraging areas
- using insecticide
- treating timber

5. Recommendation and mitigation

This licence will need to be supported by a detailed mitigation strategy to ensure that bats are not killed or injured during the works, and to make sure alternative roosting opportunities are provided during the works and created within the completed structure. Full mitigation methods will be described within the method statement which will accompany the licence application. This will include the provision of new roost facilities that will be based on the species requirements.

An outline of the mitigation measures is included below. Full site-specific details will be required for the EPS licence application and method statement.

5.1. Timings of works

There are minimal timing constraints as there is no maternity roost or hibernation roost present on site.

5.2. Alternative temporary roosting provision

Prior to any works commencing on site, alternative temporary roosting boxes must be provided for the common pipistrelle bats. This will be in the form of 1 Vincent Pro Bat box (Figure 1) secured to trees or untreated wooden posts (the base of the posts may be treated) at least 3 metres above the ground within the garden (Plan 5).

Alternative roosting provision must be installed under the licensed bat ecologist's supervision prior to any works commencing.



Figure 1. Vincent Pro Bat Box



Plan 5. Outline of existing building in red. Location of Vincent Pro bat box (blue square).

5.3. New roosting provision within the finished development

Replacement of the known roosting location will be created within the finished structure, as close as practically possible to the known roosting location.

For the common pipistrelle bat roosting in association with the roof, a modified tile (Figure 2) will allow this bat into the roof covering. Guidance from Natural England is that breathable roof membranes (BRMs) should not be installed into roosting areas used by bats. The underfelt for all areas associated with the roosting bats will comprise bitumen 1F felt. This must be approved and supervised by the licensed bat ecologist.



Figure 2. For illustration purposes only; modified slates to allow bats access into roof covering.

5.4. Lighting

The presence of lighting can have a significant effect on bat species roosting, foraging and navigating. Many species of bats are known to sample the light levels before emerging from their roost; only emerging for their night's hunting when the light intensity outside reaches a critical level after sunset.

During construction, all site lighting must be situated and angled away from any bat boxes and linear vegetation, i.e. hedgerows and nearby tree-lines etc. that may be used as flight paths.

Lighting must be situated and angled away from the new roosting provision within the finished development.

5.5. Ecological Watching Brief (EcoW)

Works likely to affect roosting bats cannot begin until the European Protected Species licence has been issued.

Once the licence has been issued and prior to the start of work, site staff will be briefed on the protected status of bats and the licenced working methods to be adopted, including bat exclusion methods.

A visual survey will be required before any works commence on site and a licenced ecologist will undertake ecological watching briefs during works in areas where bats may be found.

Following inspection, the removal of any feature with bat roost potential will only be performed by hand in suitable weather conditions and under direct ecological supervision. Where applicable, materials will be removed carefully away and not rolled or sprung to avoid potential harm to bats. The undersides of materials will be checked before removal, by the Licenced Ecologist or Accredited Agent, for bats that may be clung to them. This includes roof coverings.

The licenced ecologist will be on hand and will undertake further site visits during the works to ensure adherence to mitigation methods and provide advice should unforeseen circumstances be met.

If a common pipistrelle bat is found during the initial visual survey, they will, if possible, be relocated to the alternative roosting opportunities on site. This will only be done by the licensed ecologist and will follow recommended practises.

The licenced ecologist will be on hand and will undertake site visits during the conversion to ensure adherence to mitigation methods and provide advice should unforeseen circumstances be met.

5.6. Post development monitoring

In line with guidelines for small numbers of a common species (Mitchell-Jones, 2004), post development monitoring is not required.

References

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Survey Trust, London. ISBN-13 978-1-872745-96-1

Mitchell-Jones, A. J., (2004). Bat mitigation guidelines. Version: January 2004. Natural England.

Wray et al. (2010). Valuing Bats in Ecological Impact Assessment. CIEEM In Practice Volume 70 p23-25. (December 2010).