

# Campbellhayes Cottage, Witheridge, EX16 8QL

## Protected Species Assessment & Bat Survey Report



Campbellhayes - Bat Roost  
Assessment Report  
EHM Ltd  
james@ehmltd.com

## Contents

1. Introduction .....	5
1.1. Development outline .....	5
1.2 Site Description .....	5
2. Methods .....	6
2.1. Site Visit .....	6
2.3 Desktop study .....	7
2.4 limitations .....	7
2.5 Relevant Legislation and Planning policies .....	8
3. Results .....	9
3.1 Desktop Search .....	9
3.2 Bat Commuting and Foraging Habitat .....	9
3.3 Bat Roost Assesment of Building .....	9
3.3.1 External Inspection .....	9
3.3.2 Internal Inspection .....	11
3.3.3 Roost Evaluation .....	12
3.4 Bat Surveys .....	12
3.5 Other protected species assessment .....	13
3.5 Designated Sites .....	13
4 Discussion & Recommendations .....	14
4.1 Effects of Designated Sites .....	14
4.2 Effects on Habitats on Site .....	14
4.3 Effects on Protected and Notable Species .....	14
4.3.1 Bats .....	14
Dormouse .....	15

<i>Badgers</i> .....	15
<i>Reptiles</i> .....	15
<i>Amphibians</i> .....	16
<i>Birds</i> .....	16
4.4 General Ecological Protection Measures..	16
4.5 Ecological Enhancements .....	17
<i>Planting</i> .....	17
<i>Additional Features</i> .....	17
4.6 Summary of Recommendations.....	18
5. Appendix 1: Bat Survey Report .....	19
1. Introduction .....	19
1.2 <i>Survey Objectives</i> .....	19
1.2 <i>Survey Limitations</i> .....	19
1.3 <i>Legal Status of Bats</i> .....	20
2. Methods.....	20
2.1 <i>Preliminary Bat Roost Assessment</i> .....	20
2.2 <i>Bat Surveys</i> .....	21
2.3 <i>Equipment Used</i> .....	21
3. Results .....	22
3.1 <i>Preliminary Roost Assessment</i> .....	22
3.2 <i>Bat Survey Results</i> .....	22
4. Conclusions .....	26
4.1 <i>Roost Characterisation</i> .....	26
4.2 <i>Bat Foraging and Commuting Habitat</i> .....	26
4.3 <i>Potential Impacts</i> .....	26
5. Discussion and Mitigation.....	26

5.1 Protected Species Mitigation Licensing .....	26
5.2 Mitigation Strategy .....	27
Long term roost replacement .....	28
6. Conclusion.....	29
6: Appendix 2: Legislation.....	30
5. UK BAP & notable species .....	33

<b>Job</b>	Campbellhayes Cottage, Witheridge, EX16 8QL		
<b>Report title</b>	Protected Species Assesment and Bat Survey Report		
<b>Version</b>	Final		
<b>File reference</b>	RP-FWA-001		
<b>Author</b>	James Webster MCIEEM,	EHM LTD	07/09/2022

## Executive Summary

EHM Ltd has been commissioned to carry out protected species assessment and bat survey of a residential property near Tiverton in Devon.

The site is located in a rural location with pasture fields surrounding the cottage and a tree lined stream to the north-west and south-east of the cottage running under the road. The southern aspect of the cottage is bound by a mature garden with, hedgerows, shrubs and mown grass.



The site covers an area of approximately 1100m<sup>2</sup> and is located off Campbellhayes Hill Road. A section of woodland is located to the north of the site, across the road, and the tree lines on site connected into a treeline/ hedgerow that meanders across the local landscape, following the stream.

The site is located in Tiverton, Devon; SS8231114507.

## Recommendations

Following an assesment of the sites potential to support protected and notable species and the bat survey results a discussion of the potential impacts was undertaken and the following recommendations made.

Recommendation	Action	Justification
Obtain bat licence	Obtain required bat licence following granting of planning permission.	This will ensure the roosts can be removed lawfully.
Protection of breeding birds	Carry out vegetation and building clearance outside of breeding bird season or under supervision of ecologist following a breeding bird survey	The buildings are likely providing several opportunities for breeding birds.
Appropriate lighting for bats	Avoid illuminating bat foraging and commuting habitat- adjacent woodland. During and post development. This could be a condition of planning.	This will help limit disturbance to bat species in the longer term.
Precautionary methodology	Carry out ground clearance under a precautionary methodology. Cut vegetation in stages.	This will ensure protected species are not directly impacted.
Follow GCN Protection measures	Follow the protection measures during construction to help ensure GCN are not impacted.	This ill protect GCN and help ensure an offence is not committed.
Follow Badger Protection Measures	Follow the badger protection measures during construction	This will protected badgers.
Retention and protection of wider habitats	Follow pollution control measures and establish biodiversity exclusion zones.	This will protect important habitats on site.
Root and crown protection of trees.	Provide adequate root and crown protection of mature trees if required.	This will protect these important habitats during construction.
Adequate pollution control	Follow pollution control and exclusion measures.	This will protect habitats on site and those in the nearby landscape.
Enhancements	Include native planting and bat ad bird boxes in the final design.	This will help to ensure long term benefit for biodiversity.

## 1. Introduction

EHM Ltd has been commissioned to carry out protected species assessment and bat survey of a residential property near Tiverton in Devon.

### 1.1. Development outline

EHM Ltd understands that the development comprises of renovating the existing cottage on site and creating a detached annex on the property.

### 1.2 Site Description

The site is located in a rural location with pasture fields surrounding the cottage and a tree lined stream to the north-west and south-east of the cottage running under the road. The southern aspect of the cottage is bound by a mature garden with, hedgerows, shrubs and mown grass.

The site covers an area of approximately 1100m<sup>2</sup> and is located off Campbellhayes Hill Road. A section of woodland is located to the north of the site, across the road, and the tree lines on site connected into a treeline/ hedgerow that meanders across the local landscape, following the stream.

The site is located in Tiverton, Devon; SS8231114507 (figure 1).

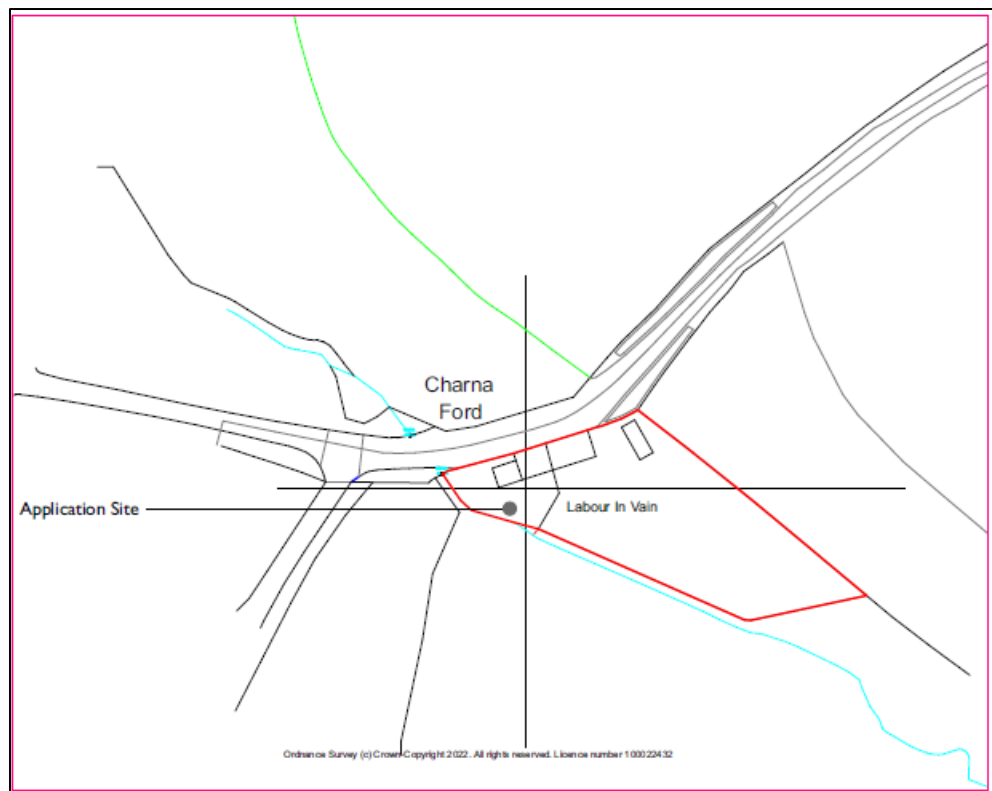


Figure 1: Site outline.

## 2. Methods

### 2.1. Site Visit

EHM undertook a site visit on the 1<sup>st</sup> July 2022. This was to carry out a walk over of the site, determining the basic habitats present and their current condition. The potential for these habitats to support protected and notable species was also recorded. The site visit was carried out by an experienced ecologist who is able to appropriately identify habitats and assess their quality and suitability to support species.

The following evidence of protected species or habitats to support them was assessed;

#### **Badgers**

Evidence of badger activity on site was assessed by searching for:

- Presence of setts, indicated by suitably sized holes or burrows with evidence of badgers such as badger hair and footprints
- Evidence of well runs supported by secondary evidence such as foraging signs or footprints; and
- Presence of badger latrines

#### **Bats**

The site was assessed for its potential to support:

- Roosting bats; and
- Foraging and commuting bats.

Features which could indicate a potential bat roost include:

- Holes and fissures in trees; and
- Gaps in buildings that could allow access to areas such as roof voids, e.g. holes in soffits, broken, loose or missing tiles, damaged lead flashing, etc.

The methodology for assessing bat roost potential followed that recommended by the Bat Conservation Trust<sup>1</sup>.

Further bat surveys were conducted of the cottage, these can be seen in appendix 1.

#### **Breeding birds**

The site was assessed for its potential to support nesting and breeding birds, considering factors including sufficient habitat cover and food sources.

#### **Dormice**

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<sup>1</sup> Collins, J. (ed) (2016). Bat Surveys for professional Ecologists; Good Practice Guidelines (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

The site was surveyed for suitable dormouse habitat, such as the presence of a well-connected understorey broadleaf habitat, and suitable food sources such as hazel, oak and other nut-bearing trees, fruiting trees and shrubs, flowers and invertebrates. Where hazel nut shells were found, these were inspected for evidence of dormouse feeding.

### **Aquatic mammals**

Aquatic habitats were assessed for their potential to support aquatic mammals such as Otter or water vole. Signs including; foot prints, droppings and evidence of feeding were searched for.

### **Reptiles**

The site was assessed for its potential to support reptile populations. Suitable habitat for reptiles includes long grass, scrub, woodland and hedgerow borders and wood/rubble piles that act as hibernacula.

### **Amphibians**

Any aquatic habitat was assessed for its potential to support amphibian species, including Great Crested Newts. Any ponds on site were assessed, using the Habitat Suitability Index, for its potential to support Great Crested Newts. Terrestrial habitat was also assessed for its ability to support amphibians.

### **Other species**

The site was assessed for its potential to support other notable species.

## **2.3 Desktop study**

In conjunction with the site visit Magic.gov.uk was also reviewed for additional relevant protected species and habitat information.

## **2.4 limitations**

The contents of this report are based on a single site visit. Though the survey and interpretations of the data were carried out by a competent ecologist there may be things that have been overlooked or missed.



## 2.5 Relevant Legislation and Planning policies

A full list of UK wildlife legislation and designations can be seen in the appendix. Relevant legislation implications for this site include;

- The Conservation of Habitats and Species Regulations 2010 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way Act 2000;
- The Natural Environment and Rural Communities Act (NERC Act) 2006;
- Environment Act (2022)

Biodiversity is a material consideration, and Local Planning Authorities have a requirement to consider biodiversity and protected species when determining planning applications. Section 15 of the National Planning Policy Framework (July 2021) gives specific reference to minimising the impacts of development on biodiversity. Local and Neighbourhood plans also provide guidance towards protecting and enhancing biodiversity, including priority habitats and notable species.

## 3. Results

### 3.1 Desktop Search

The Magic map shows granted European Protected Species (EPS) licences involving bats within the local landscape. The closest is located approximately 2.3km to the southwest of the site. Another two licences relating to bats are located approximately 4.6 km to the west of the site. A licence relating to Dormouse is located approximately 4km to the northeast of the site.

### 3.2 Bat Commuting and Foraging Habitat

All bat species in the UK eat insects and forage along habitats such as hedgerows, woodlands, grasslands and waterways<sup>2</sup>. Bats use woodland edges, hedgerows, rivers and other linear features like tree-lined footpaths as corridors to commute from one area of countryside to another<sup>3</sup>.

The tree lines on site provide suitable commuting and foraging habitats. And there is suitable connectivity across the local landscape to nearby woodland and pastoral areas. Therefore it is considered likely that the site contains suitable foraging and commuting habitat.

### 3.3 Bat Roost Assessment of Building

Buildings are known to provide suitable roosting opportunities for a number of bat species<sup>4</sup>. An external and internal inspection of the buildings on site was carried out to assess their potential to support bat roosts, following Bat conservation trust guidelines<sup>5</sup>. The barn was subjected to a thorough inspection of the interior and exterior looking for any potential roost features or evidence of bats themselves.

#### 3.3.1 External Inspection

An external survey was carried out, which included, for example, looking for gaps between any soffit boards and walls, gaps between window frames and the walls, and looking for bat droppings on the walls and window ledges. A pair of close-focussing binoculars and a high-powered torch were used to search for evidence of bats externally.

The building was a two storey rendered cottage with a pitched corrugated asbestos sheet roof. There are also one storey sections to the west with slate pitched roofs, which were not surveyed. The building contained wooden fascias on all sides with a Brick chimney.

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<sup>2</sup> <https://www.bats.org.uk/about-bats/where-do-bats-live/bat-habitats/foraging-habitats>

<sup>3</sup> <https://www.bats.org.uk/about-bats/where-do-bats-live/bat-habitats/commuting-habitats>

<sup>4</sup> Bats and Buildings. Bats and the Build Environment Series. Bat Conservation Trust. January 2012.

<sup>5</sup> Collins, J. (ed) (2016). Bat Surveys for professional Ecologists/; Good Practice Guidelines (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

Following the external inspection identified the following features that could support a bat roost;

1. Feature on end of gable end to east
2. Gap at the apex on the W gable end
3. Raised corrugated sheets near the ridge on the northern elevation
4. Raised corrugated sheets near the ridge on the southern elevation
5. 5 Gap near the apex on the eastern gable end

The location of the features are shown in figure 1 below.

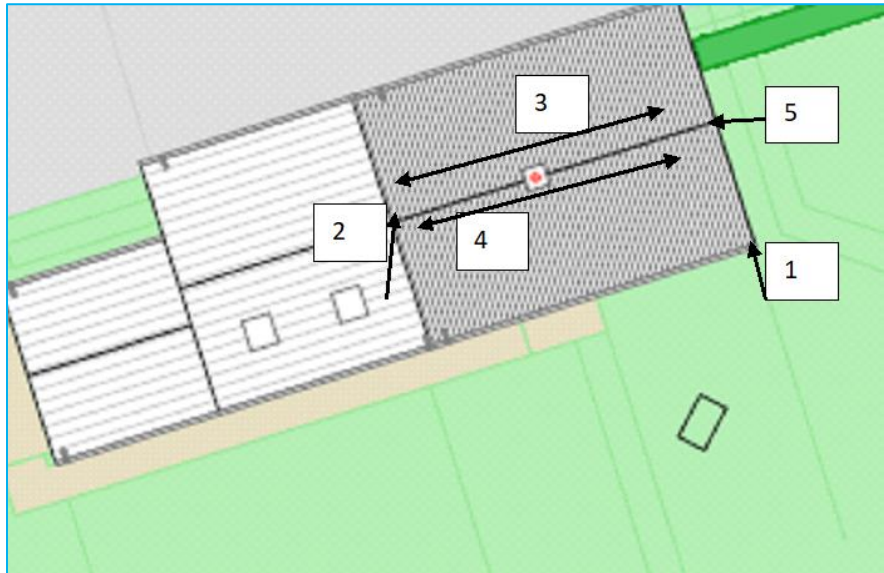


Figure 1: Summary of external features on the cottage



Photo 1: Eastern aspect of cottage showing corrugated sheets

### 3.3.2 Internal Inspection

An internal roof void was inspected. This was approximately 5m w x 12m l x 2m h and constructed of a wooden frame with breeze blocks at gable ends. There was no backing to the roof and limited insulation on the floor. The roof contained little in the way of potential roosting features and there was no obvious access into the interior space.



Photo 2: Interior of roof space in cottage.

### 3.3.3 Roost Evaluation

The Bat Conservation trust provides guidelines for assessing the bat roost potential of a building. The table below provides a summary of these guidelines.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions <sup>a</sup> 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 or hibernation <sup>b</sup> ).  A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. <sup>c</sup>	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.  Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.  Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree 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 <sup>a</sup> and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.  High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.  Site is close to and connected to known roosts.

Table 1: Summary of Bat roost suitability Guidelines (BCT).

Following a thorough assessment by a competent and licensed ecologist the cottage is considered as having a **Moderate** Potential to support a bat roosts. This is due to the fact that the building contains several features that could provide roosting opportunities for small numbers of bats.

### 3.4 Bat Surveys

Following the above assessment one dusk emergence and one dawn re-entry survey was undertaken of the cottage. The full results of this survey can be seen in appendix 1.

In summary the results of the surveys were;

- 17/08/22 Recorded:
  - 2 soprano pipistrelles (*Pipistrellus pygmaeus*) and 1 common pipistrelle (*Pipistrellus pipistrellus*) emerging from the western gable
  - 1 common pip emerging from the single storey section
  - 1 common pip emerging from the ridge on the SE side
- 03/09/2022 – Recorded
  - four soprano pipistrelles entering at the western gable end
  - 1 common pip entering at the single storey section

### 3.5 Other protected species assessment

No evidence of nesting birds was noted within the cottage though it is possible that the cottage contains suitable features that could support nesting birds. The wider habitats on site have potential to support nesting birds particularly the trees, hedgerows and shrubs.

Reptiles prefer sites with a diversity of habitats containing a number of micro habitats that provide suitable foraging and refuge sites<sup>6</sup>. The ornamental nature of the majority of the habitats on site mean they are unlikely to support reptiles. The site contains some areas of longer/ rougher vegetation around the edges of the site that have potential to attract reptiles, though this is limited.

The European protected species Great Crested Newt (*Triturus cristatus*) require both suitable aquatic habitats for breeding and terrestrial habitats to forage and shelter during the active season and hibernate over winter<sup>7</sup>. In general the habitats on site are unlikely to support amphibians and there are no records of granted licenses relating to GCN. There are ponds within proximity of the site and some limited terrestrial habitat to support amphibians. It is possible though not likely that amphibians are found on site.

No evidence of dormice (*Muscardinus avellanarius*) activity, such as feeding remains or nests was observed on site. Across its range dormice prefer the successional stage of woody vegetation; this is the new growth that arises after woodland management such as coppicing, ride widening, thinning or glade creation, they may also occur in scrubby habitat<sup>8</sup>. In general the habitats on site are not suitable for this species though the hedgerows and tree lines bordering the site provide some suitability for this species, and there is connectivity across the local landscape.

The site was investigated for evidence of Badger (*Meles meles*); setts or signs such as tracks, hair or latrines. No evidence of badgers was seen during the site visit. The surrounding landscape has potential to support badgers, and it is possible they are seen on site.

### 3.5 Designated Sites

There are no statutory protected areas within proximity of the site.

There are areas of habitat listed on the Priority Habitat Index (HPI) within proximity of the site. This includes areas of deciduous woodland which are located across the local landscape. The closest section is located to the north of the site immediately across the road. Areas of traditional orchard are located approximately 500m to the west, east and north of the site.

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<sup>6</sup> Edgar, P., Foster, J. and Baker, J. (2010). Reptile Habitat Management Handbook. Amphibian and reptile Conservation, Bournemouth

<sup>7</sup> Great crested newt mitigation guidelines. August 2001. English Nature.

<sup>8</sup> <https://ptes.org/get-informed/facts-figures/hazel-common-dormouse-muscardinus-avellanarius/>

## 4 Discussion & Recommendations

The following sections consider the effects on protected areas, priority habitats, protected species, notable species and habitats on site. Recommendations for additional surveys and or enhancements are made as necessary.

### 4.1 Effects of Designated Sites

The development is not within proximity of any statutory protected areas.

The site does not directly border any priority habitats however priority deciduous woodland is located close to the northern border of the site. The proposed is unlikely to directly impact this woodland. However the general protection measures outlined below will help ensure there are no indirect impacts.

### 4.2 Effects on Habitats on Site

The proposed development will involve the refurbishment of the cottage on site and the construction of a new annex in the garden.

The proposed development will largely occur on areas of amenity grassland. The majority of the habitats on site and bordering the site will be retained.

Retained trees will require adequate root and crown protection during construction.

### 4.3 Effects on Protected and Notable Species

#### 4.3.1 Bats

Following the bat surveys (appendix 1) the cottage is considered as support day roosts of common pipistrelle and soprano pipistrelle. To remove this roost lawfully a licence from Natural England will be required. This is applied for after obtaining planning permission.

The licence will likely contain conditions relating to timings and methods for roost removal. However it is likely that alternative roost provision will be required and lighting impacts will need to be considered;

- Avoid illuminating the wider habitats on site, at dusk or night time- Guidelines provided by the Bat Conservation trust and ILP should be followed<sup>9</sup>
- Limit work to daylight hours
- Limit noise disturbance and other forms of pollution such as dust
- Maintain the wider habitats on site
- Lighting should also be considered post-development with any external lighting positioned so as not to illuminate potential foraging or commuting habitats.

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<sup>9</sup> <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

### Dormouse

The proposed development is unlikely to impact habitat occupied by dormouse. If the plans change then additional dormouse surveys of method statement may be required.

### Badgers

Though no evidence of badgers was seen during the site visit, to help ensure badgers are not harmed during the development the following actions are recommended.

- To prevent badgers becoming trapped in open earth works or excavations that any excavations, that are to be left overnight, should either be covered over or a board placed securely within the excavation that allows access from the bottom of the excavation to the ground level.
- All excavations and trenches should be inspected each morning before works commence. If a badger is found trapped on site the ecologist or local badger group/ RSPCA should be contacted.
- Any loose or soft material such as topsoil should be covered overnight and when not in use to discourage their use by badgers as potential setts. Any mounds should be inspected daily to ensure badgers have not established a sett. If a potential sett is discovered an ecologist should be consulted immediately and the area not disturbed.
- If pipework (over 120mm in diameter) is stored on site the ends should be covered and inspected before use.
- Chemicals will be stored in a secure/ bunded container to avoid disturbance by badgers

### Reptiles

Some of the habitats on site are considered as having potential to support reptiles; reptiles are protected from recklessly injuring or killing under UK law. The proposed development is unlikely to directly impact habitats likely to support reptiles. However to reduce any potential impacts prior to work commencing the vegetation will be cleared in stages;

#### Stage 1

The vegetation will need to be reduced to a height 150-200mm using hand tools (e.g. strimmers). It is recommended that cutting works towards retained areas, where there is connectivity to wider habitats. All potential refugia such as log or rubble piles should be removed by hand to outside of work area.

#### Stage 2

After a period of at least one day has passed a second vegetation cut should be undertaken to ground level. Again, it is recommended that this second-stage cutting works towards the eastern edge of the site. All cuttings to be removed from work area. The site can then be completely cleared and worked upon as necessary.

If a reptile is seen then works should stop until an appropriate mitigation strategy can be agreed and implemented.



### Amphibians

The site proposed development is unlikely to directly impact habitat likely to support amphibians. By following the clearance method above amphibians are unlikely to be impacted. To ensure amphibians are not harmed during construction the following measures will be followed:

- Conduct groundworks over winter period when newts are unlikely to be active
- Carry out works during daytime
- Backfill trenches and other excavations before nightfall, or leave a ramp to allow newts to easily exit
- Raise stored materials (that might act as temporary resting places) off the ground, e.g. on pallets
- Exclude construction personnel and materials from around the pond and wider grassland to north of access track (temporary fencing will be in place)
- In the unlikely event of a newt being seen on the construction site all works should stop immediately and an Ecologist consulted

### Birds

To ensure breeding birds are not impacted any, trees or scrub that may require removal should be removed outside of the breeding bird season, this typically runs from March to September. If vegetation/ buildings require removal during the nesting bird season the area should be subjected to a survey by an experienced ecologist. If there are any nest sites located within the work area a suitable exclusion zone will have to be established until the chicks have fledged. All bird nests are protected in the Wildlife and Countryside Act (see appendix).

Additional planting and inclusion of nest boxes would help replace any potential loss in nesting habitat.

## 4.4 General Ecological Protection Measures

The following measures are suggested to help minimise the impact to the wider environment;

- Establish biodiversity exclusion zones- prior to commencement of works an exclusion zones will be established to ensure construction personnel or materials enter the wider habitats on site. The exclusion zone will incorporate the grassland and scattered trees as well as the area around the pond.
- Suppression and monitoring of dust where relevant.
- Control sources of aquatic pollution, particularly from entering local water courses or ground water.
- All proposed work must strictly be in accordance with all relevant Pollution Prevention Guidelines (PPG) published by the Environment Agency which may include but is not limited to PPG1 (general), PPG5 (works in, near, or liable to affect watercourses) and PPG6 (work at construction & demolition sites). Contingency plans should be drawn up to address chemical spillage, collision, etc.

## 4.5 Ecological Enhancements

A number of enhancements have been recommended for inclusion in the final development to help reduce potential ecological impacts. It is important to utilise native species of local provenance in landscaping schemes to enhance the ecological value of the development. Recommendations include some of the following aspects.

### Planting

To help achieve a measurable biodiversity net gain the proposed development will include retention of habitats and creation of new habitats. When planting garden ornamental species these should include those with a known wildlife benefit such as those on the RHS pollinator list.

### Additional Features

To enhance the local bat population and provide roosting opportunities within the site artificial roost sites could be incorporated into the landscaping. Bat boxes such as the Schwegler 2F is a good general purpose box that can be hung on trees (see bat survey report appendix 1). The inclusion of bird boxes into the proposed development would provide a benefit for local bird population. It is also recommended that log piles could be made in areas of retained habitats on site. The log piles can be created from any trees that are being removed as part of the proposal. Log piles offer shelter for hibernating small mammals and insects, as well as a foraging area for some birds.

## 4.6 Summary of Recommendations

The table below summarises the recommendations.

Recommendation	Action	Justification
Obtain bat licence	Obtain required bat licence following granting of planning permission.	This will ensure the roosts can be removed lawfully.
Protection of breeding birds	Carry out vegetation and building clearance outside of breeding bird season or under supervision of ecologist following a breeding bird survey	The buildings are likely providing several opportunities for breeding birds.
Appropriate lighting for bats	Avoid illuminating bat foraging and commuting habitat- adjacent woodland. During and post development. This could be a condition of planning.	This will help limit disturbance to bat species in the longer term.
Precautionary methodology	Carry out ground clearance under a precautionary methodology. Cut vegetation in stages.	This will ensure protected species are not directly impacted.
Follow GCN Protection measures	Follow the protection measures during construction to help ensure GCN are not impacted.	This will protect GCN and help ensure an offence is not committed.
Follow Badger Protection Measures	Follow the badger protection measures during construction	This will protect badgers.
Retention and protection of wider habitats	Follow pollution control measures and establish biodiversity exclusion zones.	This will protect important habitats on site.
Root and crown protection of trees.	Provide adequate root and crown protection of mature trees if required.	This will protect these important habitats during construction.
Adequate pollution control	Follow pollution control and exclusion measures.	This will protect habitats on site and those in the nearby landscape.
Enhancements	Include native planting and bat and bird boxes in the final design.	This will help to ensure long term benefit for biodiversity.

## 5. Appendix 1: Bat Survey Report

### 1. Introduction

EHM Ltd has been commissioned to carry out a bat survey of a cottage located on Campbellhayes Road neat Tiverton in Devon.

#### 1.2 Survey Objectives

The purpose of this report is to provide the evidence that an assessment has been made as to the potential for the buildings in question to support roosting bats in order to demonstrate compliance with wildlife legislation protecting bats and planning policy.

The key objectives of this survey are as follows:

- assess the presence or likely absence of roosting bats within buildings on site, identify key commuting and foraging routes for bats across the site.
- if roosting bats are found to be present on the site, give an indication of the population size of each species present.
- recommend further mitigation where assessed as necessary and suggest potential enhancements.

#### 1.2 Survey Limitations

It should be noted that this survey, whilst carried out in accordance with current best practice, identifies bat usage of the site, which may change throughout the year. Knowing this survey should be regarded however as a robust recognised method. It is possible that on occasion, despite best effort, bats may be found on site after works commence; if this is the case, advice should be sought immediately from a suitably qualified ecologist on the best course of action to take.

In order to minimise the likelihood of adverse effects on protected animal species over time, it is accepted good practice for ecological surveys to be repeated should works be deferred for over 12 months from the date of initial survey. It is the duty of the landowner, developer and operations managers to act responsibly and to comply with current environmental legislation if protected species are suspected or found prior to, or during works.

### 1.3 Legal Status of Bats

All eighteen of the UK's bat species are protected under section 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA states that 'a person is guilty of an offence if intentionally or recklessly they disturb [a bat] while it is occupying a structure or place which it uses for shelter or protection; or he obstructs access to any structure or place which [a bat] uses for shelter'.

Under the Conservation of Habitats and Species Regulations 2017, it is an offence if;

- A person deliberately captures, injures or kills any wild animal of a European Protected Species;
- Deliberately disturbs wild animals of any such species;
- Damages or destroys a breeding site or resting place of such an animal.
- A detailed list of UK wildlife legislation is provided in the appendix.

## 2. Methods

The surveys described below have taken due regard of the Bat Conservation Trust Bat Survey Good Practice Guidelines 2016<sup>10</sup> recognised as a robust survey methodology, Bat Workers Manual (Mitchell-Jones & McLeish, 2004<sup>11</sup>) and the Bat Mitigation Guidelines (English Nature, 2004). Bat Conservation Trust (BCT) Interim Guidance Note (May 2022)<sup>12</sup>.

### 2.1 Preliminary Bat Roost Assessment

Buildings are known to provide suitable roosting opportunities for a number of bat species<sup>13</sup>. An external and internal inspection of the building on site was carried out to assess their potential to support bat roosts, following Bat conservation trust guidelines<sup>14</sup>. An internal inspection was undertaken where possible inspecting all roof voids and potential roosting locations with a high powered torch looking for signs of bats in the form of staining, droppings, feeding remains and the bats themselves. This was followed by an external inspection of the buildings looking for potential ingress points through soffits, eaves, missing roof tiles/slates and brickwork and windows.

EHM undertook a site visit on the 1<sup>st</sup> July 2022. This was to carry out an inspection to search for and identify potential feeding perches, roosting opportunities and signs of bat use externally. The methodology for assessing bat roost potential followed that recommended by the Bat Conservation Trust.

All the buildings were inspected from the ground using a powerful torch and binoculars. The visual inspection focussed on searching for feeding remains and bat droppings on external walls.

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<sup>10</sup> Collins, J. (ed) (2016). Bat Surveys for professional Ecologists/; Good Practice Guidelines (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

<sup>11</sup> Mitchell-Jones, A.J. & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, Joint Nature Conservation Committee, Peterborough

<sup>12</sup> Use of night vision aids for bat emergence surveys and further comment on dawn surveys. Bat Conservation Trust (May 2022)

<sup>13</sup> Bats and Buildings. Bats and the Build Environment Series. Bat Conservation Trust. January 2012.

<sup>14</sup> Collins, J. (ed) (2016). Bat Surveys for professional Ecologists/; Good Practice Guidelines (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

Crevices and other potential roost sites were investigated for smear/grease marks, lack of cobwebs, urine staining.

The assessment was undertaken by Katie Jones, an experienced and licensed bat ecologist.

## 2.2 Bat Surveys

Following the initial roost assessment, it was decided that one dusk emergent survey and one dawn re-entry survey would be conducted of the cottage.

These surveys would be carried out at a suitable time of year and in suitable weather conditions in line with BCT guidelines. The emergence survey visits were undertaken by experienced bat surveyors, led by Katie Jones. Katie is an experienced and licenced ecologist with a number of years as an ecological consultant carrying out a number of bat surveys using a range of equipment.

Emergence surveys were undertaken on the evenings of 17/08/2022 and 03/09/2022, in accordance with good practice guidelines from 15 minutes before sunset until 90 minutes afterwards in favourable weather conditions.

## 2.3 Equipment Used

Species calls were identified and species were verified by flight patterns in the field. During the surveys the following equipment was used; Peersonic RPA 3, EMT Pro.

### 3. Results

#### 3.1 Preliminary Roost Assessment

Results of the preliminary roost assessment can be seen in section 3.3 of the main report.

#### 3.2 Bat Survey Results

A dusk survey was conducted on the 17<sup>th</sup> of August 2022 and a dawn survey was conducted on the 3<sup>rd</sup> of September 2022. Both surveys involved two experienced ecologists covering the potential roosting features identified.

#### Weather Conditions

Date	Start time	End time	Sunset/ Sunrise Time	Temp (°C)	Wind (Beaufort)	Rain
17/08/2022	20:15	22:00	20:32	15	0	0
03/09/2022	05:00	06:45	06:30	19	0	0

**Table 5.1.1: Summary of weather conditions and survey parameters.**

**Dusk Survey results- 17/08/2022**

The tables below summarises the results of the dusk survey , a summary of activity is shown in figure 5.1.

Position	Time	Species						Notes (If emerging, mark with an 'E')
		P45	P55	<i>Plecotus Myotis</i>	LHS GHS	Noct Sero Leis	Analook analysis	
A								
	20:42	X						<b>Emerged</b> (same one that ben saw) at 20:40 from W gable end
	20:44	X						<b>Emerged</b> from under the ridge
	20:49	X						Pass over the roof heading south
	20:53	X						Pass from trees to the north-east
	20:53					Nn		Overhead and at height
	20:55	x						Same bat at position B at 20:53, flying south close to the ridge
	20:58	x						Pass from trees to the north-east
	21:07	x						Pass
	21:12				LE bat			Pass
	21:29	x						Foraging around trees and over the roof
	21:31 - 33						Leis	HNS
	21:31	x						HNS
21:33	x						Foraging (very dark and difficult to see)	
21:53	X						HNS with social calls	

One separate emergence from the ridge, also saw 2 emergences that ben recorded. All bats recorded were common pipistrelle. Very little other bat activity recorded.

Position	Time	Species						Notes (If emerging, mark with an 'E')
		P45	P55	<i>Plecotus Myotis</i>	LHS GHS	Noct Sero Leis	Analook analysis	
B								
	20:23	x					√	Emerged from the western gable end of the lower slate section
	20:33		x				√	<b>Emerged</b> from the western gable end of the house
	20:41	x					√	Pass over the roof towards the south
	20:46	X					√	Pass east along the lane
	20:41		X				√	<b>Emerged</b> from the western gable end of the main house
	20:48	x					√	Pass over the house & south
	20:50						√	Pass over the house north
	20:52						√	Pass over the house north
	20:53	x					√	<b>Emerged</b> from W gable end of main house
20:54	X					√	Pass HNS	

Three bats emerged from the western gable end of the main house (see photo) comprising 2 soprano pipistrelle and 1 common pipistrelles. 1 common pipistrelle also emerged from the western gable end of the lower single storey section with the slate roof

Table 5.1.2: Summary of dusk survey 17/08/2022



## Dawn Survey 03/09/2022

Position	Time	Species						Notes (If emerging, mark with an 'E')
A		P45	P55	<i>Plecotus Myotis</i>	LHS GHS	Noct Sero Leis	Analook analysis	
	05:19		x					HNS with social calls
	5:26		x					HNS with social calls
	5:29		x					HNS with social calls
	5:39		x					HNS with social calls
	05:59		x					Fly overhead and close to the house
	06:05		x					Brief call
	06:24		X					Flew overhead and very close to the SE corner but did not re-enter
<p>Low levels of activity in the garden although could hear soprano pipistrelles foraging along the lane on the other side of the house. No bats re-entered although one bat flew very close to the SE corner, it didn't enter.</p>								
Position	Time	Species						Notes (If emerging, mark with an 'E')
B		P45	P55	<i>Plecotus Myotis</i>	LHS GHS	Noct Sero Leis	Analook analysis	
	05:19		X					HNS single pass
	05:27			Myo?				HNS possible Myo or possible pip social call?
	05:29		X					Foraging along the road
	05:39		X					Flying east up hill and then over the house
	05:56 - 59		x					Foraging over the garden and around trees to the SW of the house
	06:04		x					<b>Entered</b> – western gable end apex
	06:06		X					Foraging over the garden and around trees to the SW of the house
	06:23		x					<b>Entered</b> – western gable end apex
	06:26		x					<b>Entered</b> – western gable end apex
	06:30		x					<b>Entered</b> – western gable end apex
<p>Summary of survey (to be completed by each surveyor)</p> <p>Four soprano pipistrelles re-entered the western gable end of the house (1 also recorded re-entering the single storey extension)</p> <p>Other bat activity quite low</p>								

Table 5.1.3: Summary of dawn survey 08/092022

In summary the results of the surveys were;

- 17/08/22 Recorded:
  - 2 soprano pipistrelles (*Pipistrellus pygmaeus*) and 1 common pipistrelle (*Pipistrellus pipistrellus*) emerging from the western gable
  - 1 common pip emerging from the single storey section
  - 1 common pip emerging from the ridge on the SE side
- 03/09/2022 – Recorded
  - four soprano pipistrelles entering the western gable end
  - 1 common pip entering from the single storey section

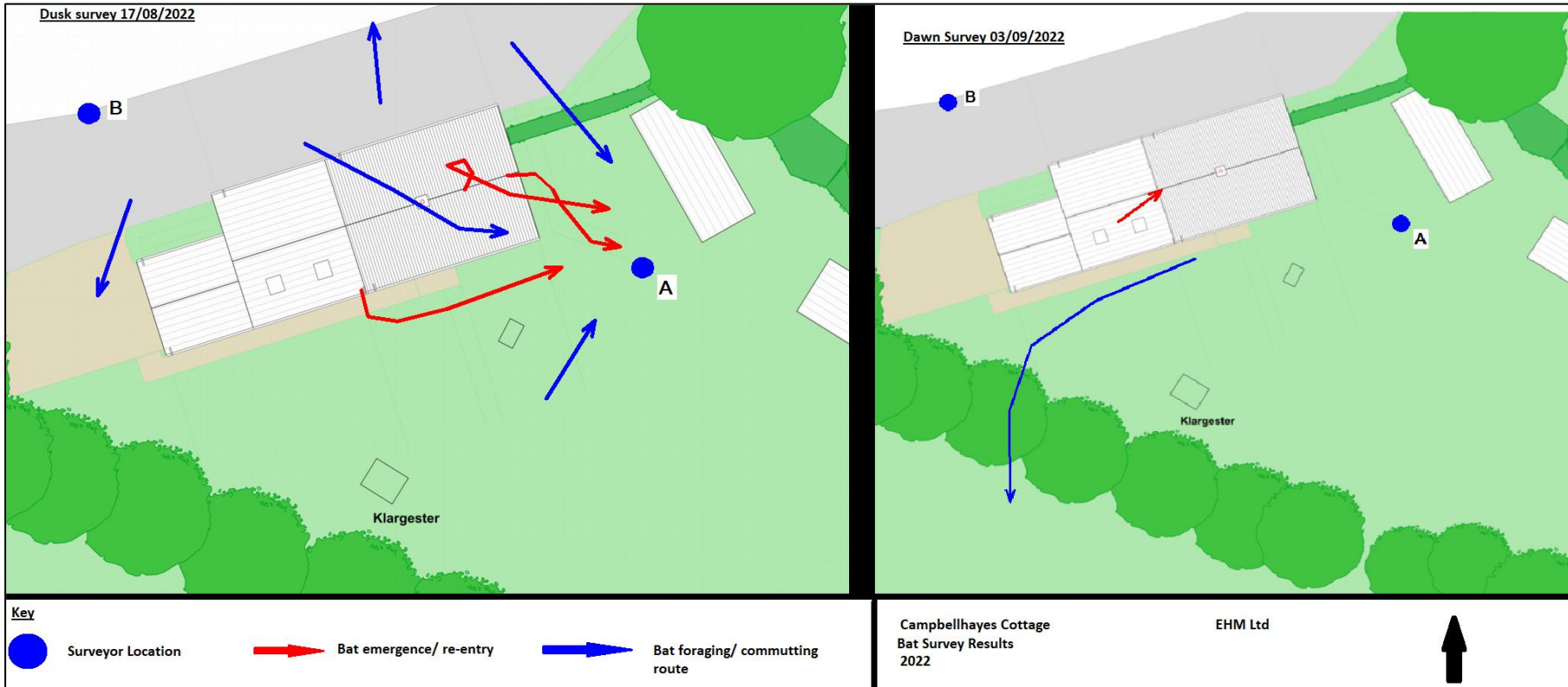


Figure 5.1: Summary of bat survey activity

## 4. Conclusions

### 4.1 Roost Characterisation

Based on the updated surveys it appears that the building supports a day roost for soprano pipistrelle and common pipistrelle. The designation of a day roost is applied as the cottage appears to support small number of individual bats that are present at night during the summer, this is in line with the BCT description of a day roost<sup>15</sup>.

Three roost locations are located on the roof to be refurbished (darker area on figure 5.1) and a single roost location located on the single storey section to the west.

### 4.2 Bat Foraging and Commuting Habitat

Two species were recorded foraging/ commuting on site common pipistrel and soprano pipistrelle. A possible Myotis species was recorded on the dawn survey.

In conclusion the site provides foraging and commuting opportunities for species of bats.

### 4.3 Potential Impacts

If the development was to proceed without further mitigation or compensation measures it would have the following potential impacts;

- Loss of common pipistrelle day roost
- The loss of a Soprano Pipistrelle Day roost
- Disturbance to commuting and foraging habitat

These impacts would have a long-term effect on the local bat population. Therefore appropriate mitigation measure are required to ensure any impacts are mitigated or adequately compensated.

## 5. Discussion and Mitigation

### 5.1 Protected Species Mitigation Licensing

As the proposed works will result in unavoidable unlawful impacts to bats and their roosts, it will be necessary to obtain a bat licence in order for the proposed works to proceed lawfully. In order to obtain a licence, the applicant will need to demonstrate that appropriate mitigation measures and proportional compensation will be implemented to account for the impacts of the development.

Once obtained, the bat licence would permit actions that would otherwise be unlawful (i.e. disturbance of bats and temporary exclusion of a roost) and the development may proceed under the terms set out in the licence method statement and under the supervision of a licensed bat ecologist.

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<sup>15</sup> Collins, J. (ed) (2016). Bat Surveys for professional Ecologists/; Good Practice Guidelines (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

Planning permission must be granted prior to submission of the application. Submitting an application does not guarantee that the licence will be granted; they may request further information. Further Information Requests may be subject to at least a further 30-working-day determination period.

Though it is considered that sufficient survey effort has been conducted to characterise the roost types on the site, additional surveys may be required as part of the licence application.

A low impact class licence is likely eligible for this project.

## 5.2 Mitigation Strategy

The mitigation strategy may be updated following the licence application though will likely include the following elements.

### Mitigation Hierarchy

The mitigation hierarchy, as described within the National Planning Policy Framework (NPPF, 2021), was followed in designing this Mitigation Strategy. As such, impacts to bats are, in the first instance, avoided; then, adequately mitigated for; or, as a last resort, they are proportionally compensated for (Collins, J. (Ed.), 2016).

The following actions are recommended to reduce potential to bat roosts and bat habitats.

### Lighting

Lighting can adversely impact bats<sup>16</sup>. Guidelines provided by the Bat Conservation trust should be followed<sup>17</sup> during construction to avoid unnecessary illumination. Lighting should also be considered post-development with any external lighting positioned so as not to illuminate potential habitat for bats. The impact of lighting on bats can be minimised by;

- Using Low-pressure sodium lamps instead of high- pressure sodium or mercury lamps;
- Maintaining the brightness as low as possible;
- Directing the lighting to where it is needed to avoid light spillage; and,
- Minimising upward lighting to avoid light pollution.

### Retention and enhancement of Habitats

The tree lines and hedgerows around the edges of the property will be retained. This will continue to provide suitable foraging and commuting opportunities for bats.

### Timing of works

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<sup>16</sup> Fure (2006), Bats and lighting, The London Naturalist, No. 85, 2006

<sup>17</sup> [http://www.bats.org.uk/pages/bats\\_and\\_lighting.html](http://www.bats.org.uk/pages/bats_and_lighting.html)

To avoid disturbance of bats during the sensitive periods of the year there may be restrictions on timings or methods of roost removal. This would depend on the agreed methodology in which ever licence route is taken and agreed with Natural England.

### Short term roost replacement

To provide replacement opportunities for bats associated with the identified roost site prior to construction commencing. These should be located within areas away from the proposed construction works and integrated into the location of suitable retained trees and habitat connections with avoidance of areas with highest potential future light-spill.

It is proposed to erect suitable bat boxes within in retained trees on site. The most suitable area is likely to be towards the south east of the site within trees on the edge of the site.

Specifically, replacement roost mitigation should at least consist of:

### Day roosts

It is recommended that two Schwegler Bat Box 2F (or similar) be erected on retained trees to the south of the site as a short term roost replacement for day roosting bats. They are best positioned near existing habitat such as woodland or hedgerows. It is recommended that boxes be placed on existing semi mature trees on site (towards the north) at least 4m above the ground.



Figure 5.2: Schwegler 2F bat box.

### Long term roost replacement

There is an opportunity to include roost sites within the refurbished roof of the cottage and/ or within the annex building. Tiles that provide roosting opportunities can be incorporated into the fabric of the building, this will provide long-term day roost opportunities for the species that will be impacted. Another option would be The Ibstock Enclosed Bat Box<sup>18</sup> which is an example of a bat box that can be incorporated into the building.

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<sup>18</sup> <https://www.ibstockbrick.co.uk/wp-content/uploads/2022/03/37069-Ibstock-EcoHabitats-eBook-v14-Download.pdf#page=6>



Figure 5.3: Istock enclosed bat box .

### Pre-works Inspection

Before works are carried out the roof of the building will be subject to an internal inspection. If present, the bats will be captured by hand or using a static hand net and will be relocated to an interim compensatory bat box prior to works commencing.

### Soft Strip

Following attainment of the mitigation licence, the buildings will likely undergo a soft strip under the supervision of a Natural England Class 2 licenced bat ecologist prior to the main demolition.

## 6. Conclusion

In conclusion, following three dusk emergence surveys, the target building at Styles Place is considered as support the following roosts:

- Common pipistrelle day roost
- Soprano Pipistrelle Day roost

It is recommended that a suitable mitigation licence be obtained from Natural England once planning permission has been granted.

Short- and long-term roost replacement has been recommended.

## 6: Appendix 2: Legislation

Protected species have protection under national legislation such as the Wildlife and Countryside Act 1981 and European legislation such as the Habitats Directive.

Please note the following:

(1) If there is no record of a particular protected species, this does not signify that the species is absent from the site in question. It may mean that it has not been recorded, that the site has not been surveyed for this species, or that data relating to its presence has not been made available to us.

(2) The presence of a protected species record does not mean that the species is still present. It means that the species was recorded at that time and place. The implications of the record should be further evaluated, and a survey to establish the current status may be required.

(3) The following summary of legislation is designed purely as a basic guide, if any action is to be taken regarding any of the protected species listed, then it is imperative that the full relevant legislation be consulted.

### WILDLIFE PROTECTION LEGISLATION IN ENGLAND

Legislation that protects wildlife in England exists at the European and national level.

#### European Law

The Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979) was aimed at ensuring conservation and protection of all wild plants and animals, increasing cooperation between states, and affording special protection to the most vulnerable or threatened species. It was implemented by the EC Birds Directive (Council Directive 79/409/EEC) and the EC Habitats Directive (Council Directive 92/43/EEC).

The Bonn Convention on Migratory Species of Wild Animals (1979 & 1994) requires the protection of migratory animals. It was implemented by the EC Birds Directive (Council Directive 79/409/EEC) and the EC Habitats Directive (Council Directive 92/43/EEC).

The EC Habitats Directive aims to establish a network of protected areas in order to maintain the distribution and the abundance of threatened species and habitats. A number of species are listed in the annexes.

Annex II lists animals and plants whose conservation requires the designation of Special Areas of Conservation (SACs).

Annex IV lists animals and plants in need of strict protection. For the animals, this prohibits deliberate capture, killing, disturbance (especially during breeding period), destruction or taking of eggs from wild, and destruction or deterioration of breeding sites or resting places. For the plants, this prohibits deliberate picking, collecting, uprooting, cutting, destruction, and trade in entire plants or parts, at all stages of life.

Annex V lists animals and plants for which taking in the wild may be subject to management measures

#### National Law

Wildlife and Countryside Act The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. A statutory five-yearly review of Schedules 5 and 8 (protected wild animals and plants) is undertaken by the relevant authorities. Species protection is provided under Schedules 1, 5, 6 and 8:

Schedule 1 lists bird species that are rare, endangered, declining or vulnerable. The Schedule is divided into two parts. Part I lists birds which receive special protection; these birds receive additional protection from disturbance at the nest. Part II lists birds that receive the same level of special protection, but only during the breeding season.

Schedule 5 protects animal (other than bird) species from certain actions, according to the sections of the Act under which they are listed:

S9 (1) prohibits the intentional killing, injury or taking. S9 (2) protection is limited to possessing and controlling. S9 (4a) prohibits the damaging, destroying or obstructing access to any place used by the animal for shelter or protection. S9 (4b) prohibits disturbing the animal while it is occupying any structure or place which it uses for shelter or protection. S9(5) prohibits the selling, offering for sale, possessing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from such an animal. Species on this Schedule do not appear on the PSI.

Schedule 6 lists animals that may not be killed by certain methods. Even humane trapping for research requires a licence.

Schedule 8 lists plant species for which it is prohibited to intentionally pick, uproot, destroy, trade in, or possess (for the purposes of trade).

Under the Wildlife and Countryside Act, all wild plants in Britain are protected from intentional uprooting by an unauthorised person. Landowners, land occupiers, persons authorised by either of these, or persons authorised in writing by the Local Authority for the area are exempt from this, except for Schedule 8 species.

Conservation Regulations the Conservation of Habitats and Species Regulations 2010 (as amended) transpose the EC Habitats Directive into national law. In addition to enabling the designation of SACs, the regulations also provide species protection:

Schedule 2 protects the listed animals from deliberate capture, killing, disturbance or trading in.

Schedule 4 protects the listed plants from picking, collecting, uprooting, destroying or trading in.



These actions can be made lawful through the granting of licences by the appropriate authorities. Licences may be granted for a number of purposes, but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild the population of the species concerned.

Protection of Badgers Act the Protection of the Badgers Act prohibits the killing, injuring or taking of badgers and damage or interference with a badger sett, unless licensed to do so by a statutory authority.

#### International and European Obligations

In the UK, species receiving protection under international legislation and agreements are protected through the Wildlife and Countryside Act, so are not shown separately in the BMERC notable species lists. For reference, the relevant categories are shown below.

Bern Convention on the Conservation of European Wildlife and Natural Habitats the Bern Convention aims to ensure the conservation of wild flora and fauna species and their habitats.

- Appendix 1 (strictly protected flora) - Plants for which contracting parties will prohibit deliberate picking, collecting, cutting or uprooting.
- Appendix 2 (strictly protected fauna) - Animals for which contracting parties will prohibit deliberate capture, possession, killing, damage to or destruction of breeding or resting sites, disturbance or destruction or taking of eggs. Appendix 3 (protected fauna) - Animals for which contracting parties will include closed seasons and regulate their sale, keeping for sale, and transport for sale or offering for sale of live and dead wild animals. (Not included in Notable Species List).

Bonn Convention on Migratory Species the Bonn Convention aims to conserve terrestrial, marine and avian migratory species throughout their range.

- Appendix 1 (migratory species threatened with extinction) - Species for which contracting parties will strictly protect and endeavour to conserve or restore the places where they live, mitigating obstacles to migration and controlling other factors that might endanger them.
- Appendix 2 (migratory species that need or would benefit from international co-operation) - Species for which contracting parties will be encouraged to conclude global or regional agreements for the conservation and management of individual species or, more often, of a group of species. (Not included in Notable Species List).

The EC Council Directive on the Conservation of Wild Birds the Birds Directive provides a framework for the conservation and management of all wild birds in Europe. As well as designating important sites for birds as Special Protection Areas, birds are generally protected from deliberate killing or capture and destruction of or damage to their nests or eggs, and deliberate disturbance. Allowances are made for game birds.

## 5. UK BAP & notable species

### UK Biodiversity Action Plan and Section 41 Species

Biodiversity, or biological diversity, is the whole variety of life on Earth. The Convention on Biological Diversity (CBD) came about as a result of the 1992 Earth Summit. As one of 168 countries to sign up to the CBD, the UK was required to develop a national strategy for the conservation of biodiversity; the UK Biodiversity Action Plan (UKBAP) was born.

The UKBAP is the result of contributions involving a wide range of people and organisations, enabling the identification of species and habitats that are listed as priorities for conservation action. A 2007 review of the UKBAP has resulted in 1149 species and 65 habitats being listed as conservation priorities. For more information see [www.ukbap.org.uk](http://www.ukbap.org.uk).

In addition to the national priorities and targets, action is also being taken at local level. The Essex Biodiversity Project is responsible for implementing the Essex Biodiversity Action Plan, which has 28 priority species and 15 priority habitats currently listed. For more information see [www.essexbiodiversity.org.uk](http://www.essexbiodiversity.org.uk).

### The UK BAP

(From Explanatory Note by Defra and Natural England on Section 41 of the Natural Environment and Rural Communities

(NERC) Act 2006 - Habitats and Species of Principal Importance in England)

The England Biodiversity List has been developed to meet the requirements of Section 41 of the Natural Environment and Rural Communities Act (2006). This legislation requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity.

The S41 list will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions. In particular:

- Regional Planning Bodies and Local Planning Authorities will use it to identify the species and habitats that should be afforded priority when applying the requirements of National Planning Policy framework (NPPF) and PPS9 Circular to maintain, restore and enhance species and habitats.
- Local Planning Authorities will use it to identify the species and habitats that require specific consideration in dealing with planning and development control, recognising that under NPPF and PPS9 Circular the aim of planning decisions should be to avoid harm to all biodiversity.
- All Public Bodies will use it to identify species or habitats that should be given priority when implementing the NERC Section 40 duty.

**Habitats of Principal Importance** Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that have been identified as requiring action in the UK Biodiversity Action Plan (UK BAP). They range from habitats such as upland hay meadows to lowland mixed deciduous woodland and from freshwater habitats such as ponds to marine habitats such as subtidal sands and gravels.

**Species of Principal Importance** There are 943 species of principal importance included on the S41 list. These are the species founding England which have been identified as requiring action under the UK BAP. In addition, the Hen Harrier has also been included on the List because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

**Relationship with the UK Biodiversity List of Species and Habitats** the UK BAP list of priority species and habitats is an important reference source and will be the focus for conservation action across the UK over the next decade. It has been used to draw up the species and habitats of principal importance in England under S41 of the NERC Act.

The revised UK BAP list of priority species and habitats can be downloaded from the UK Biodiversity Website: <http://www.ukbap.org.uk/NewPriorityList.aspx>

**Relationship with the biodiversity duty under Section 40 of the NERC Act** There is a general biodiversity duty in the NERC Act (Section 40) which requires every public body in the exercising of its functions to 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'.

There is no direct relationship between the Section 41 duty on the Secretary of State to publish the list and promote the taking of steps to conserve the habitats and species on it, and the Section 40 duty on public bodies to have regard to the purpose of conserving biodiversity. Importantly:

- (a) Biodiversity, as covered by the Section 40 duty includes all biodiversity and not just the habitats and species of principal importance. However, there is an expectation that public bodies would refer to the S41 list when complying with the section 40 duty.
- (b) The duty on the Secretary of State to promote the taking of steps by others is not restricted to public bodies.

Defra guidance for local authorities and public bodies on implementing the biodiversity duty in the NERC Act draws attention to the S41 list, emphasising that local authorities and public bodies have a role to play in ensuring the protection of these species and habitats. Copies of the guidance can be downloaded from:

<http://archive.defra.gov.uk/environment/biodiversity/documents/pa-guid-english.pdf>

The overall aim of the Essex Biodiversity Project is to protect, conserve and enhance the variety of wildlife species and habitats in Essex through the successful implementation of the Essex Biodiversity Action Plan.

