

# **Bat Survey**

## **Penhaven, Haverigg**

**10<sup>th</sup> January 2025**

**Report No. 0125/3**

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## Executive Summary

'Penhaven' is a detached bungalow with 2 outbuildings located at the edge of Haverigg village. The owner wishes to demolish the three buildings and re-build a new single storey dwelling on the land holding.

This report was commissioned to accompany a planning application, and involved an inspection of the property and desktop search to assess whether bats are using, or have used it for roosting purposes. An assessment is also made of the potential the buildings have to host bats, and whether this proposed development will have any negative impacts on individual bats, or the local bat population.

The buildings affected by the proposed development were inspected inside and outside for evidence of bat activity. There were no restrictions on access.

All buildings were of similar construction – with rendered walls and pitched roof. Roof coverings were concrete tiles, all of which were in good condition with no gaps around the roof or eaves. Wall tops were similarly well sealed. Small gaps were present around the damaged garage door of the workshop/ outbuilding, but these were not extensive and unlikely to appeal to roosting bats.

Surrounding habitat is open – with residential properties and agricultural land dominating the area. There are few trees and no wooded areas, and the surroundings are exposed to prevailing and coastal wind.

No evidence of bats was found at the property, and there are no nearby records of roosts.

Overall the property (house and both outbuildings) were assessed as having negligible potential to host roosting bats. Surrounding habitat was of low quality for foraging and commuting bats due to the lack of sheltered habitat features such as woodland.

No further survey work is required for this project.

Bats are very mobile animals and change roosting location as environmental conditions change. There are no likely potential roost sites on the property, and as such no particular avoidance or mitigation measures are needed for the proposed works. It is considered to be highly unlikely that the proposed demolition of the three buildings at 'Penhaven' will impact on any individual bats, or on the local bat population.

Following best practice guidance some enhancement measures have been included to encourage wildlife gains from this project.

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# **1 Introduction**

## ***1.1 Site description***

'Penhaven' is a detached bungalow property at the edge of the coastal village of Haverigg. It is located at SD1538 7906 at approximately 6m above AOD. The property comprises a bungalow and two detached outbuildings (garage/ shed/ workshops).

The house and outbuildings are all in very good repair. The house faces south, with an outbuilding/ garage to the west, and separate outbuilding/ workshop to the east.

The property is surrounded by other dwellings and agricultural land. The surrounding land is quite flat and open with few trees or hedges.

Figure 1 shows the location of 'Penhaven'. Satellite imagery of the surrounding habitat and the area immediately surrounding the property is presented in figure 2. Photographs of the buildings are included in the appendices to this report.

## ***1.2 Proposed works***

The owner wishes to demolish the house and outbuildings and rebuild a new single storey dwelling on the land holding.

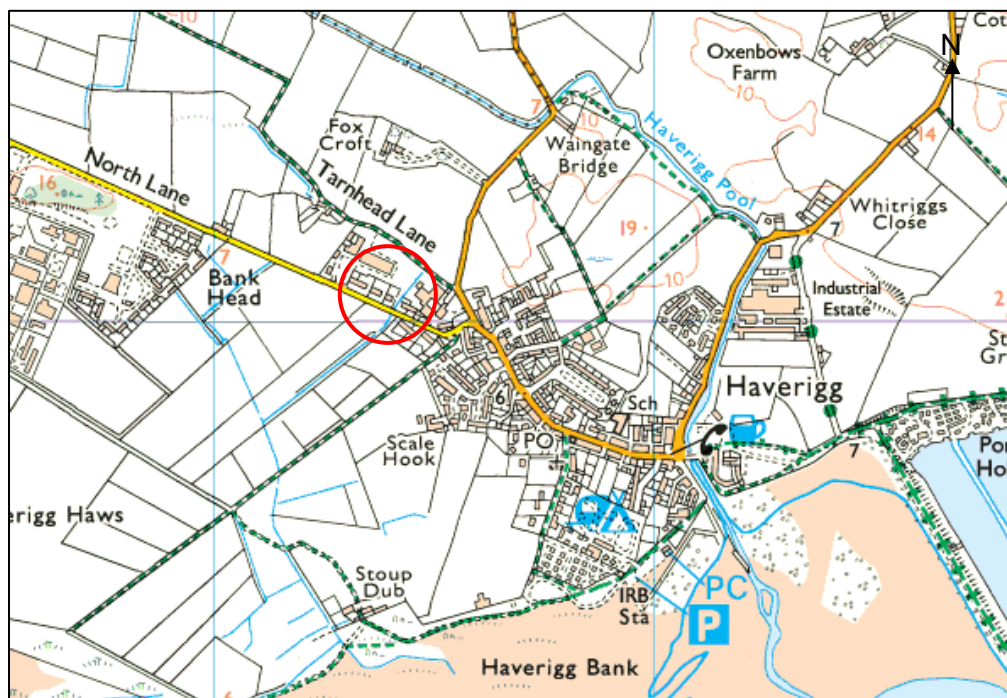
There is no set timescale for these works.

## ***1.3 Aims of survey***

This survey was commissioned to accompany a planning application to Cumberland Council.

The aim of the survey is to assess whether bats use, or have used, 'Penhaven'; and if so how it has been used. From this data an assessment will be made as to whether any particular roost and/or the surrounding bat population would be affected by the proposed development. If they are likely to be affected then appropriate mitigation proposals will be included in this report.

The inspection survey and ensuing report follow guidance and structure provided by Bat Conservation Trust (Bat Surveys Good Practice Guidelines, 4<sup>th</sup> edition, 2023).

**Figure 1. Location Map**

Contains Ordnance Survey data © Crown copyright and database right copied under licence (No. 100055725)

**Figure 2. Aerial photograph showing surrounding habitat**

Red circle indicates location.

(Imagery date 2018)

## 2 Methods

### 2.1 *Desktop data search*

A search of current literature (including the Bat Conservation Trust publication 'The Distribution Atlas of Bats in Britain and Ireland', Cumbria Biodiversity Data Centre's Mammal Atlas and 'Mammals of the British Isles') was done, looking for bat records in the 10km grid square in which the property is situated.

An internet search was also carried out, noting any land with statutory designations within 5km of 'Penhaven'. Reasons for any relevant land designations were researched to check whether bats were important features. A search was also carried out for local EPS (European Protected Species) licences for disturbance to bats (this will give further indication of species present in the area). Searches for statutory designations, and relevant citations were done on a DEFRA website [www.magic.defra.gov.uk](http://www.magic.defra.gov.uk).

A detailed search was commissioned from Cumbria Biodiversity Data Centre, providing records of bats and their roosts within 2km of the property.

### 2.2 *Surveyor information*

The inspection was undertaken by Tamsin Douglas MCIEEM, experienced ecologist (holds Natural England Bat Class Licence – registration number 2015-10308-CLS-CLS).

### 2.3 *Field survey*

#### 2.3.1 *Daytime inspection*

A daylight inspection of the building to identify possible roosting and nesting locations and access routes to these locations was carried out on 9<sup>th</sup> January 2025 between 14.30 ND 15.00 by Tamsin Douglas.

The external and internal inspection was carried out, where necessary, using ladders, 10 x 42 binoculars, endoscope (Vscope VOxx-10WW) and a 1 million candlepower torch. The weather was dry, sunny and cold with light winds.

The building inspection involves a detailed internal and external daylight search for evidence of current or past use of the building by bats. Outside, particular attention is paid to the ground and ledges under any potential access points, weather boarding, hanging tiles, eaves, cracks and crevices in walls, and under tiles/slates. Internal inspections focus on areas around and below any potential roosting spots, ledges and lintels, behind crumbling render, and on and around roof timbers.

Evidence from a search which would indicate presence of bats includes-

- Roosting bats
- Corpses
- Droppings and urine staining on and around potential roosting areas (further evidence derived from amount and freshness of droppings)
- Droppings, staining and/or scratch marks at potential roost entrances
- Cleaner areas of woodwork, areas free of cobwebs suggesting bat activity such as crawling or flying
- Feeding detritus- such as moth wings

- Chattering or squeaking noise from roosting bats.

A general assessment is also made of the suitability of the surrounding habitat for bats, and connectivity to other areas of good quality foraging and commuting habitat.

Direct evidence of bats can be hard to detect and, as such, during the preliminary roost assessment the building is also appraised for its potential to host roosting bats. This potential is based on several factors:

- Presence of suitable internal or external features for roosting bats, and good access routes to these features
- Number of bats that these features could support
- Suitable conditions for roosting either in active season or for hibernation (humidity, temperature, exposure)
- Surrounding foraging and commuting habitat, connectivity to good habitat features
- Proximity to known roosts (especially for hibernation of species such as pipistrelles)

The need to undertake a roost emergence/ re-entry survey or hibernation survey (to provide further evidence as to whether bats use the building affected by these proposals) was determined by the results of this inspection.

### **2.3.2 Roost surveys**

During the dusk roost survey, all suitable elevations of the property are observed for a standard period after sunset (dawn surveys are not required as standard under the new guidance). Surveys are carried out between May and September, when bats are most active. Surveyors watch all potential roosting locations to see if any bats emerge. Bat detectors (personal and static), digital recording devices and night-vision aids (thermal imaging scopes and infra-red cameras) are used to aid detection and identification of any emerging bats.

A hibernation survey typically involves a detailed inspection of possible roosting sites using torch, mirror and endoscope, and can involve deploying static bat detectors. The survey is carried out in mid-winter, typically in January and February. The exact parameters of the survey depend on the nature of the site.

This scoping survey was carried out 'out of season', and as such roost surveys were not viable at the time. The need to undertake a roost emergence/ re-entry survey was determined by the results of this inspection, and will be detailed in the conclusions of this report.

## 3 Results

### 3.1 Desktop search

#### 3.1.1 Designated sites

There is a large amount of designated land within 5km of 'Penhaven', and also within 2km of the property – most of which is designated for coastal and intertidal habitats and species.

A total of two SSSIs, one NNR (National Nature Reserve), one SPA (Special Protection Area), one SAC (Special Area of Conservation) and one LNR (Local Nature Reserve) are found within 5km of the property. Although these may support bat populations, none of them detail bats in the supporting citations. The closest protected site to the property is Duddon Estuary SSSI and Morecambe Bay SPA and SAC 700m to the south. The property is in the SSSI Impact risk zone for this site – but the scale and nature of the proposals mean that there is no requirement for the LPA to consult with Natural England about this project.

The property is located 2.6km south-east of the Lake District National Park.

#### 3.1.2 Protected species

Eight species of bat are currently known to breed in Cumbria, with a further two species that have been recorded within the county. All species of bat in the UK are fully protected under UK and European law.

**Table 1. Status of bats in Cumbria**

Species	Status in Cumbria
Whiskered bat <i>Myotis mystacinus</i>	Widespread, but uncommon. Maternity and hibernation roosts recorded.
Brandt's bat <i>M.brandtii</i>	Widespread, but uncommon. Maternity and hibernation roosts recorded.
Natterer's bat <i>M.nattereri</i>	Widespread. Maternity and hibernation roosts recorded.
Daubenton's bat <i>M.daubentonii</i>	Widespread. Strongly associated with still or slow moving water. Maternity and hibernation roosts recorded.
Noctule <i>Nyctalus noctula</i>	Widespread, but uncommon. Rarely associated with buildings. Breeding roosts recorded.
Leisler's bat <i>N.leisleri</i>	Rare. Only a confirmed bat detector record in Cumbria.
Common pipistrelle <i>Pipistrellus pipistrellus</i>	Widespread. Roosts often associated with modern buildings, forages in a variety of habitats. Maternity and hibernation roosts recorded.
Soprano pipistrelle <i>P.pygmaeus</i>	Widespread. Only recently separated as a species from common pipistrelle, often associated with waterbodies, though forages in wide range of habitats. Maternity and hibernation roosts recorded.
Nathusius' pipistrelle <i>P.nathusii</i>	Rare. Recently added to Cumbria's list of bats. No confirmed breeding roosts recorded yet.
Brown long-eared bat <i>Plecotus auritus</i>	Widespread, but uncommon. Often associated with older buildings with good roof space. Maternity and hibernation roosts recorded.

The literature search had no records in the Bat Atlas for hectad SD17 (10km square) in which 'Penhaven' is located. The more recent CBDC Mammal Atlas had confirmed records in SD17 for Natterer's bat, pipistrelles and noctule.



The internet search looking at nearby granted EPS (European Protected Species) licences for bats produced no records within 5km of the property.

The detailed site search carried out by Cumbria Biodiversity Data Centre produced 33 records of 3 species of bats within 2km of 'Penhaven'. These were common pipistrelle, natterers bat and brown long-eared bat. Four of the records were of roosts (there were several multiple records from a known roost site in Millom which is regularly monitored). The nearest records were sightings at least 0.3km from the property. All the records were quite recent (the oldest being from 2004).

Bats are generally an under-recorded group, and as such biological records such as those above can only be used as a guide to illustrate potential distributions in the area, and are not definitive.

## 3.2 Field survey

### 3.2.1 Habitat assessment

The habitat surrounding the property is generally flat and open, and exposed to coastal winds. There are other residential properties to the east and west, land to the north and south is agricultural (predominantly pasture). There are scattered trees and shrubs around nearby houses and HMP Haverigg, but there is no closed canopy woodland in the surrounding area. There are small pools amongst the scrub on Haverigg dunes, and larger waterbodies around Hodbarrow RSPB reserve to the east.

Bats can fly several kilometres to their feeding grounds, often following linear features such as hedgerows. Sheltered areas, particularly around water, tend to have greater amounts of invertebrate prey, and as such are sought out by foraging bats.

The habitat around 'Penhaven' is of low quality for foraging and commuting bats due to the open and exposed nature of the landscape. It is more suited to open habitat species such as noctules and pipistrelles due to the lack of features such as woodland and tall hedgerows.

### 3.2.2 Roosting assessment

**Table 2: Factors affecting the probability of a building being used by bats in summer**

Factors increasing probability	Disused or little used; largely undisturbed Large roof void with unobstructed flying spaces Large dimension roof timbers with cracks, joints and holes Uneven roof covering with gaps, though not too draughty Entrances that bats can fly in through Hanging tiles or wood cladding, especially on south-facing walls Rural setting Close to woodland and/or water Pre-20th century or early 20th century construction Roof warmed by the sun
Factors decreasing probability	Urban setting or highly urbanised area with few feeding places Small or cluttered roof void (esp. for Plecotus) Heavily disturbed Modern construction with few gaps around soffits or eaves (but be aware these may be used by pipistrelles in particular) Prefabricated with steel and sheet materials Active industrial premises Roof shaded from the sun

(Taken from A. Mitchell-Jones, 2004)

### Building construction

The house has an unusual configuration from previous extensions, but is single storey with rendered external walls. Roofs are pitched and covered by formed/ concrete tiles. There are wooden and PVC soffits and fascias.

There were no gaps identified around the roof, walls or eaves. Window and door frames are well sealed with no gaps around the frames. The property has a brick chimney stack, which is well sealed with no gaps around the flashing.

Internally there is one large roof void with a dense network of roof timbers inside. There is roofing felt under the tiles, which is generally in good condition, though is torn or sagging in some places. There is dense floor insulation in the loft. The loft area is dark and undisturbed.

Both of the outbuildings have a similar construction with a pitched roof of concrete tiles and rendered external walls. Both have a garage door on the southern elevation, which is in poor repair on the eastern outbuilding. No significant gaps were found in or around the roof or eaves of either building. There were small gaps around the damaged doorway of the eastern outbuilding, but these were small and not extensive gaps.

### Suitability for bats

None of the buildings on the property (house and 2 outbuildings) had any notable potential to host bats. All roof and wall tops were well sealed throughout.

### Evidence of bats

No evidence of bats was found in or around the buildings.

### ***3.2.3 Summary of suitability of site for bats***

Based on the evidence above, and using published guidance (summarised below) 'Penhaven' (including the outbuildings) is assessed as having negligible potential for roosting bats, and surrounding habitat has low suitability for commuting and foraging bats.

The property was assessed as having negligible potential to host hibernating bats, based on type and exposure of roosting features present, connectivity of habitat and proximity of known roosts.

As a result of this assessment no further bat surveys are required.

**Table 3:** Summary of site suitability for bats.

<b>Suitability</b>	<b>Roosting habitat-summer</b>	<b>Commuting/ foraging habitat</b>
<b>Negligible</b>	No features found that are likely to be used	No features found that are likely to be used
<b>Low</b>	A structure with one or more potential roost sites, suitable for opportunistic use. Unlikely to be used by large numbers of bats or on a regular basis.	Habitat that could be used by small numbers of commuting or foraging bats, but isolated and not well connected to other suitable features.
<b>Moderate</b>	Structure with one or more potential roost sites, that could be used by bats – but unlikely to	Continuous habitat connected to wider landscape that could be used by bats for foraging and/ or commuting.

	support roost of high conservation status.	
<b>High</b>	Structure with one or more roost sites that are obviously suitable for larger numbers of bats on a more regular basis or for a longer period of time.	Continuous high-quality habitat that is well connected to the wider landscape and likely to be used regularly by foraging and/or commuting bats. Site near to and well connected to known bat roosts.

*Table based on Table 4.1 of 'Bat Surveys for Professional Ecologists', BCT 2016*

### **3.3 Other species**

There was no scope identified for any of the buildings to host nesting birds, as they were so well sealed. Eaves were low, and there was no sign of any previous nesting attempts by house martin or swallow.

## **4 Assessment**

### **4.1 Constraints on survey information**

This scoping visit was carried out in a cold spell in January when bat activity would be minimal -and as such sightings of bats were less likely. Winter rains would also have washed away any external evidence of bats such as droppings.

Close access was possible to the all the lower external walls and eaves. The endoscope was used to inspect all cracks and crevices within reach, which the high power torch could not illuminate. The roof area could only be inspected using high power torch and binoculars.

The roof void was empty of belongings and easy to inspect.

There are no constraints on the inspection likely to impact on the results of this survey.

### **4.2 Constraints on equipment used**

The conditions during the surveys were suitable for survey purposes and for the equipment used.

### **4.3 Potential impacts of the development**

#### **4.3.1 Designated sites**

The proposed development will not have any negative impacts on nearby designated sites.

#### **4.3.2 Roosts**

No confirmed current bat roost will be lost or damaged by the proposed development.

The property is considered to have negligible scope to host bats, and as such this proposal is highly unlikely to have negative impacts on any individual bats or the local bat population.

### ***4.3.3 Commuting and foraging habitat***

The area surrounding 'Penhaven' is a marginal foraging location for bats with limited connections to adjacent areas of high quality habitat. The proposed development is highly unlikely to have a detrimental impact on the quality of the foraging habitat for bats.

## ***4.4 Legislation and Policy guidance***

Bats have declined in numbers dramatically across the UK and Western Europe in recent decades. Key factors linked to their decline are loss of roosting places due to building works and woodland destruction. Other factors implicated in their decline are changes in the countryside resulting in habitat loss and greater fragmentation of foraging habitats, and severing of commuting flightlines due to transport developments and hedgerow destruction.

As a consequence of these significant declines, bats and their roosts are protected under British and European law.

All bats are listed under Annexe IV of the EU Habitats Directive, and some under Annexe II. This law is transposed into English law into the Conservation of Habitats and Species Regulations (2010).

Bats are also protected in the UK under the Wildlife and Countryside Act 1981 (as amended).

As a result of the above legislation it is an offence to;

- Deliberately capture, injure or kill a bat,
- Disturb a bat such that their survival, reproductive capacity, or the well being of the local population is affected
- Intentionally or recklessly disturb a roosting bat, or block access to its roost.

If the proposed works were assessed as likely to commit an offence under the above legislation, then a European Protected Species (EPS) mitigation licence would need to be sought.

Based on the evidence gathered from the inspection and desktop searches, and the experience of the surveyor, it is unlikely that an offence will be committed by the proposed development under the above legislation, and as such no EPS licence will need to be obtained.

## **5 Recommendations and mitigation**

### **5.1 Further survey**

No further bat survey work is required for these proposals.

The findings of this inspection report are valid provided that work commences within 12 months of the date of this report.

### **5.2 Avoidance and mitigation measures**

#### **5.2.1 Proposals for roost sites and potential roost sites**

As the property has negligible scope to host bats in any of the three buildings, no particular avoidance or mitigation procedures are required.

In the very unlikely event of a bat being discovered during building works, all work must cease immediately. Contact must be made with South Lakes Ecology (or if unavailable, the Bat Conservation Trust helpline on 0345 1300 228) to ensure that no harm comes to the bat(s) and to provide advice such that that work can proceed without further risk to bats.

#### **5.2.2 Proposals for foraging and commuting habitat**

No mitigation for foraging and commuting habitat is required for this development.

### **5.3 Mitigation licences**

As stated in section 4.4, based on the evidence gained from the surveys, it is considered that the proposed building works at 'Penhaven', as described in section 1.2, do not require an EPS licence.

### **5.4 Other species**

The demolition of 'Penhaven' (including the outbuildings) is not anticipated to have any impacts on any other protected species (including nesting birds).

### **5.5 Enhancement measures**

Following local planning guidance, measures to encourage a net gain of biodiversity should be included for all new developments. As impacts of the proposals at 'Penhaven' on biodiversity are minimal, the provision of some artificial bird boxes would be proportional. It is recommended that at least 2 bird boxes are installed around the new building.

Bird nesting boxes (such as a sparrow terrace, robin box or tit box) could be installed on the north or east elevations between 2 and 4m high on the external walls. All boxes should be installed in areas where they will not be exposed to predators such as cats.

Boxes can be bought or built from scratch. Full guidance can be found on RSPB website <https://www.rspb.org.uk/fun-and-learning/for-families/family-wild-challenge/activities/build-a-birdbox/>.

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Russ, J (2012) *British Bat Calls* Pelagic Publishing, Exeter

Bat Conservation Trust [www.bats.org.uk](http://www.bats.org.uk)

JNCC, Bat habitat management pages <http://jncc.defra.gov.uk/page-2465>

Details on the work done regarding issues with bats and non-bitumen roofing membranes [www.batsandbrms.co.uk](http://www.batsandbrms.co.uk)

Details on status of bats in Cumbria <http://www.cumberlandbatgroup.org.uk>

Cumbria Biodiversity Data Centre, Cumbria Mammal Atlas <http://www.cbdc.org.uk/wildlife-in-cumbria/cumbria-mammal-atlas/>



## Appendices

### i) Photographs



**Image 1.** Front (south) elevation of property.

Note the general good condition of render and roof. No gaps were seen under the eaves or around the roof area.



**Image 2.** West elevation of the property showing the garage and front door.



**Image 3.** Rear (north) elevation of the property, showing the two outbuildings.





**Image 4.**  
Small workshop/  
outbuilding in the  
eastern half of the  
back garden. No  
significant gaps  
present.



**Image 5.**  
Garage/  
outbuilding at the  
western side of the  
property in the  
back garden. No  
gaps seen in or  
around the roof of  
this building.



**Image 6.**  
Side (eastern)  
elevation of house  
showing tight soffits  
and fascias with no  
gaps at the wall  
tops.





**Image 7.**  
Front of property  
showing gable end.  
No gaps present  
along the edge of  
the roof line.



**Image 8.**  
Interior of the roof  
space.  
  
All dark and  
undisturbed, and no  
signs of mammal  
activity.