

# **Ecological Impact Assessment and Bat Survey**

**GRANARY COTTAGE, BLACK HEDLEY,  
NORTHUMBERLAND**

**SUMMER 2022**

Ruth Hadden, BSc. MCIEEM  
Ryal Soil and Ecology  
Ryal  
Northumberland

Tel: 01661 886562

<b>Document Title: Granary Cottage, Black Hedley, Northumberland Ecological Impact Assessment and Bat Survey</b>		
<b>Principal Author</b>	Ruth Hadden	
<b>Client/Agent</b>	Anthony Thomson	
<b>Date and version</b>	July 2022	
<b>Author Contact Details</b>	01661 886562	
	<b>Author</b>	<b>Date</b>
Originated	R Hadden	July 2022
Reviewed		
Approved for issue	R Hadden	5 August 2022

**Disclaimer:**

Ecology surveys are carried out in good faith, to the relevant professional guidelines. Where variation from these guidelines is necessary, this is outlined in the report. Any comments regarding condition of buildings or trees are in relation to the use of the building/tree by bats and birds and should not be considered as a building survey or arboricultural opinion on the condition of those features.

The client should be aware that the mitigation recommendations in ecology reports are often translated directly into planning conditions, and as such these should be studied closely and agreed with any contractors in advance of site works commencing.

Mitigation recommendations should be clearly marked on the Architect's Plans submitted with any planning or other consent.

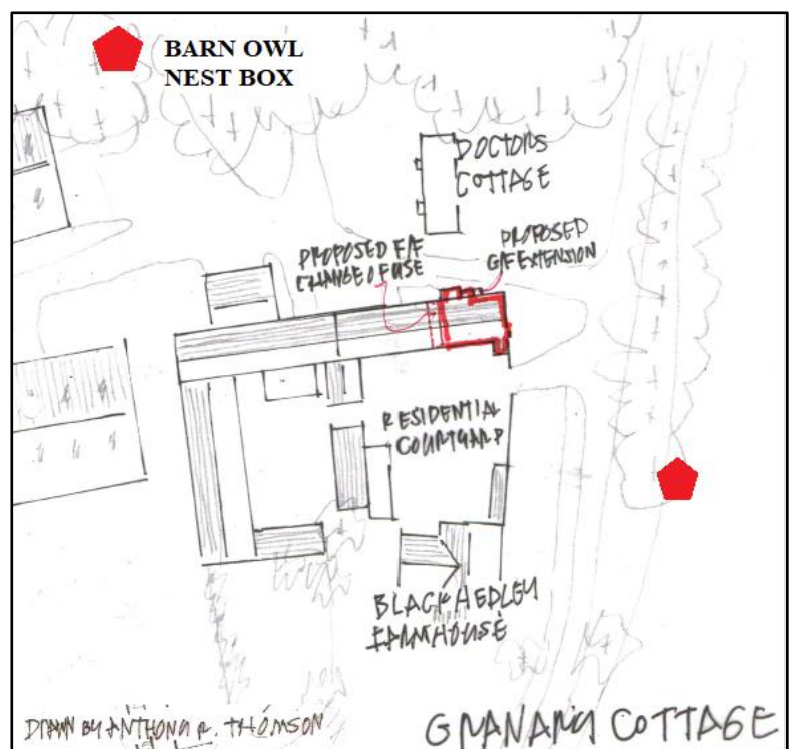
Contents	
<b>Summary</b> .....	<b>4</b>
<b>1. Introduction</b> .....	<b>5</b>
<b>2. Relevant Policies and Legislation</b> .....	<b>6</b>
<b>3. Methodology</b> .....	<b>6</b>
<b>3.1 Scope of the Assessment</b> .....	<b>6</b>
<b>3.2 Desktop Survey</b> .....	<b>7</b>
<b>3.4 Assessment</b> .....	<b>8</b>
<b>4. Baseline Ecological Conditions</b> .....	<b>9</b>
<b>4.1 General</b> .....	<b>9</b>
<b>4.2 Designated Sites</b> .....	<b>9</b>
<b>4.3 Habitats</b> .....	<b>9</b>
<b>4.4 Species and Species Groups</b> .....	<b>10</b>
<b>4.4.1 Desktop Search</b> .....	<b>10</b>
<b>4.4.2 Habitat description</b> .....	<b>10</b>
<b>4.4.3 Bats</b> .....	<b>10</b>
<b>4.4.4 Bird Assessment</b> .....	<b>11</b>
<b>4.4.5 Amphibians &amp; Reptiles</b> .....	<b>11</b>
<b>4.4.6 Other Species</b> .....	<b>12</b>
<b>5. Photographs of the Site</b> .....	<b>12</b>
<b>6. Description of Proposed Development</b> .....	<b>13</b>
<b>7. Assessment of Impacts</b> .....	<b>14</b>
<b>7.1 Constraints</b> .....	<b>14</b>
<b>7.2 Site Based Impacts</b> .....	<b>14</b>
<b>7.3 Impacts on the SSSI</b> .....	<b>15</b>
<b>8. Mitigation and Enhancement</b> .....	<b>15</b>
<b>8.1 Pollution Prevention</b> .....	<b>15</b>
<b>8.2 On Site Mitigation</b> .....	<b>15</b>
<b>8.3 Mitigation Summary</b> .....	<b>15</b>
<b>8.4 Enhancement</b> .....	<b>16</b>
<b>8.5 Monitoring</b> .....	<b>16</b>
<b>8.6 Conclusions</b> .....	<b>17</b>
<b>9. References</b> .....	<b>17</b>
<b>APPENDIX 1. LEGISLATION RELATING TO PROTECTED SPECIES</b> .....	<b>18</b>
<b>APPENDIX 2. SURVEY DATA</b> .....	<b>19</b>
<b>APPENDIX 3. BAT METHOD STATEMENT FOR CONTRACTORS</b> .....	<b>20</b>
<b>Identifying roosts</b> .....	<b>20</b>

# Ecological Impact Assessment for Granary Cottage, Black Hedley, Northumberland

## Summary

- An ecological survey was requested primarily for bats and birds for Granary Cottage, Black Hedley, Northumberland by Anthony Thomson on behalf of the owner.
- Granary Cottage is set within a steading surrounded by trees and shelterbelts. Agricultural land consisting of improved grassland with boundaries of hedges and fences is present surrounding the site in all directions.
- The building surveyed is stone built with a pitched concrete tiled roof with a bitumen sarking and has two single-storey lean-to extensions to the north and one to the south.
- The proposals are to renovate the existing cottage and extensions and to convert a small area of the upper floor of the adjacent barn to allow space for a bathroom and three bedrooms upstairs.
- Inspection results of the exterior revealed that the building affected by the proposals had the occasional crevice at the eaves suitable for roosting bats. Due to the moderate roost potential present two surveys were carried out.
- Data search results within 2km of the site consist of maternity roosts of Pipistrelle 55kHz 1.7km to the southwest and roosts of Whiskered/Brandt's and Pipistrelle 45kHz 1.7km to the southwest. Noctule 450m to the northeast. Foraging Brown Long-eared have also been recorded to the southwest.
- The dusk survey identified no bat emergence from the property and the dawn survey identified no re-entry into the building. Foraging Pipistrelle 45kHz bats were seen in the area and a Brown long-eared was seen in the barn to the west.
- No bat roosts will be affected due to the proposals and as the roof is not being re-laid or greatly affected apart from the inclusion of three velux windows, impacts will be minimal. Timing of any destructive works to avoid the hibernation period (November to March inclusive) if possible, will ensure that the works have as little negative affect as possible on bats.
- Mitigation will be in the form of the any existing crevices that may be present to be retained as at present in the renovated building and the provision of a barn owl nesting box in a nearby tree.
- No nesting birds were noted around the area of works. Any nesting bird species though will be allowed access to the nest until the young have fledged.

Figure 1. Ecological Mitigation Plan



**1. Introduction.**

The inspection was carried out and reported by Ruth Hadden BSc an experienced Ecologist and Licensed Bat Surveyor.

Figure 2. Survey area of the site – in red

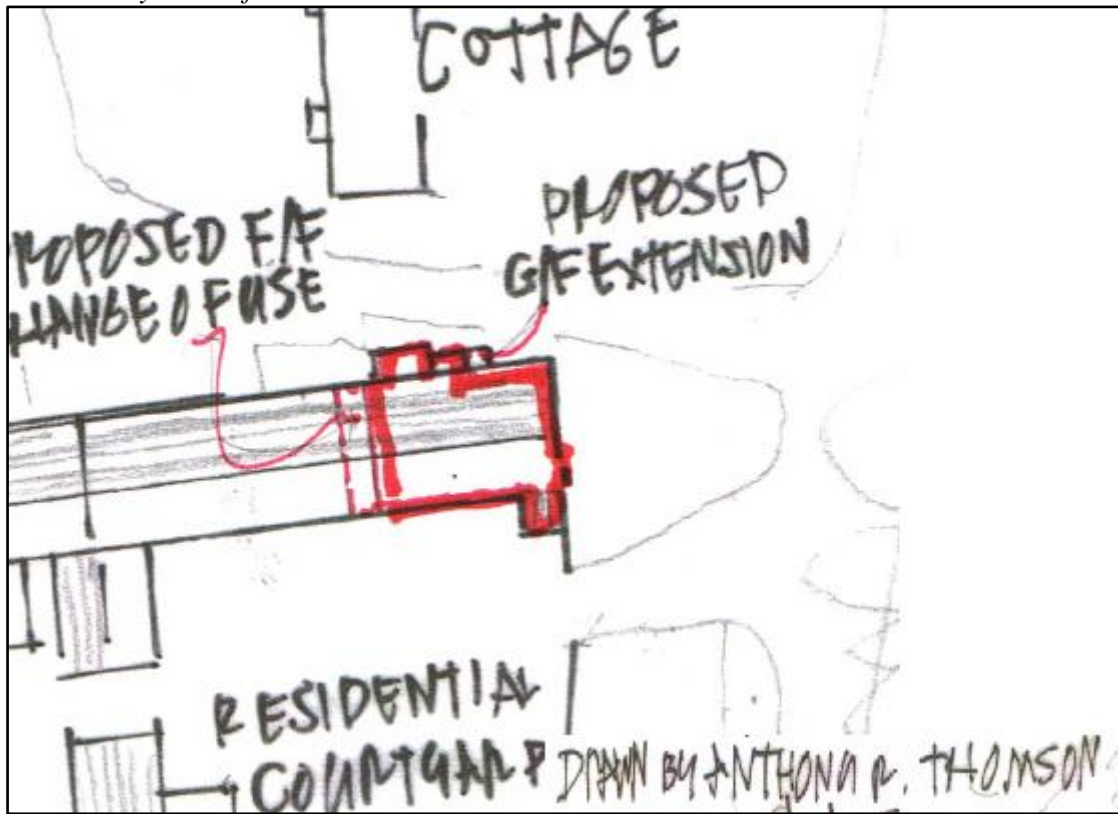
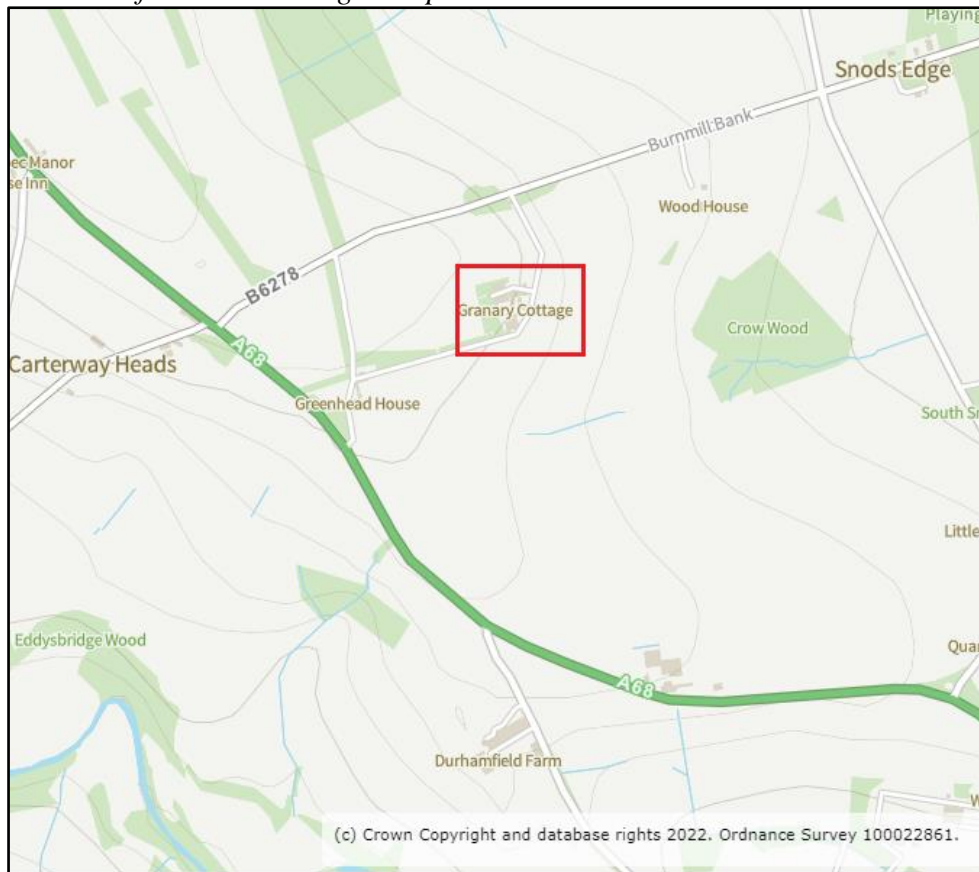


Figure 3. Location of site. From Magic Map



## **2. Relevant Policies and Legislation.**

Under Section 25 (1) of the Wildlife & Countryside Act (1981) local authorities have a duty to take such steps as they consider expedient to bring to the attention of the public the provisions of Part I of the Wildlife & Countryside Act, which includes measures to conserve protected species.

The Natural Environment and Rural Communities Act (2006) places a Statutory Biodiversity Duty on public authorities to take such measures as they consider expedient for the purposes of conserving biodiversity, including restoring or enhancing a population or habitat.

The National Planning Policy Framework (NPPF) states “*When determining planning applications, local planning authorities should apply the following principles:*

*a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;”* (paragraph 175).

ODPM Circular 06/2005/Defra Circular 01/2005 states that the presence of a protected species is a material consideration when considering a development proposal that could harm the species or its habitat.

Appendix 1 details legislation relating to applicable species.

Section 41 of The Natural Environment and Rural Communities (NERC) Act (2006) requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is 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. This includes planning decisions.

### **2.1 Designated Sites**

Site of Special Scientific Interest (SSSI) citations are for special features of importance to nature conservation. Sites of Special Scientific Interest (SSSIs) are nationally important sites protected under laws including The Wildlife and Countryside Act 1981, Countryside and Rights of Way Act 2000. LPAs must consult Natural England on planning applications that might affect SSSIs. Operations that could damage special interests require consent by Natural England. It is an offence for any person to intentionally or recklessly damage or destroy any of the features of special interest of an SSSI, or to disturb wildlife for which the site was notified.

## **3. Methodology.**

### **3.1 Scope of the Assessment.**

The zone of influence of this development is defined as being the site itself and habitats to the immediate boundaries within 2km.

The assessment has included consideration of:

- designated sites
- habitats and species of principal importance for conservation of biodiversity
- protected species, namely bats.

### **3.2 Desktop Survey.**

Natural England's Magic on the Map website was accessed for details of any designated wildlife sites within 2km.

The Environmental Records Information Centre North East (ERIC) data search has been restricted to bats, as this is the major constraint to any destructive building works.

Natural England's Magic on the Map and OS Explorer 1:12500 maps were used to assess the distance to habitat features close to the site.

### **3.3 Site Survey**

The survey area covered the buildings only within the red line boundary as shown within Figure 2 and included searching for signs of any wildlife using the site with the key aspects listed below.

The survey included an assessment of habitats on site for use by bats following the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists, Good Practice Guidelines* (3rd edition, 2016) and Natural England's definitions except where indicated. The survey effort at the site has taken account of the recommendations of the BCT Good Practice Survey Guidelines, taking proportionality into account and the proposals.

#### **Field Survey for Bats and Birds**

##### **Visual Inspection**

A close inspection of the building was made in good light, and by torch where required. The exterior and loft of the building was examined as far as was feasible for signs of bats: droppings, urine streaks, clean cobweb-free areas on the ridge boards or crevices and potential roost exit holes. All external and internal crevices were checked using a torch and possible roosting sites were noted. Crevice loving bats can be difficult to find especially when bats are present between the roofing felt and slate/tiles. Emergence surveys were therefore used to check for the presence of bats missed during the visual inspections. Beneath ledges the ground was examined for feathers, pellets and birdlime that could indicate occupation by barn owls.

##### **Emergence Survey**

As dusk fell 2 surveyors, each using visual observations and bat detectors (Echo Meter Touch), and two-way radios, carried out the evening emergence surveys, covering all aspects of the buildings. Bat detectors demodulate bat echo-location signals into audible sounds, enabling the identification of some species, and aid the monitoring of the number of bats present. Two-way radios help to determine the emergence and flight paths of a bat seen by surveyors around the site and allow the bat activity of the whole site to be understood, whilst at the site.

Surveyors are on site for at least quarter of an hour before sunset and up to 1½ hours after sunset or until darkness falls as reduced visibility does not allow bats to be seen emerging from the building being surveyed. After this time any bats picked up by detector, cannot be guaranteed to have emerged from the building in question, but confirms if additional species are present in the area or not. If bats or a maternity colony is present the bats are counted until no bats have left the roost for 10 minutes for as long as it takes.

### Re-entry Survey

A dawn survey was also carried out. For a dawn survey surveyors are on site one and a half hours before sunrise until a quarter of an hour after sunrise.

### Timing and Weather Conditions

Survey	Date	Timings	Weather
Inspection	3 May 2022	Externally and internally (40 mins).	Fine and dry
Emergence	3 May 2022	8.30pm – 10.15pm (Sunset 8.48pm)	Fine, light cloud and still 10-9°C
Re-entry	12 June 2022	3.00 – 4.45am (Sunrise 4.28am)	Fine, cloudy and slight breeze 11°C

### Personnel

Ruth Hadden – Bat Consultant since 1996, Class Survey Licence CL20 2015-13665-CLS-CLS (Bat Survey Level 4). Licensed to handle bats and enter known roosts since 1986. Qualifications BSc Joint Honours Zoology & Plant Biology, Newcastle upon Tyne. MCIEEM

Ben Hadden – Class Survey Licence WML CL18 (Bat Survey Level 2). Registration number 201514223-CLS-CLS. 15 years of experience.

Fran Dearden.

## 3.4 Assessment.

The assessment has been conducted according to the *Guidelines for Ecological Impact Assessment in the UK and Ireland Terrestrial, Freshwater, Coastal and Marine*, CIEEM, September 2018. Impacts are considered for during construction and occupation.

Preliminary Ecological Appraisal Reports (PEAR) which CIEEM guidelines<sup>1</sup> states can be used to support a planning application where it can be determined that the project would have no significant ecological effects, no mitigation is required, and no further surveys are necessary. PEARS though can also provide;

- the results of initial ecological surveys associated with a proposed development
- identify further ecological surveys necessary to inform an EcIA
- identify ecological constraints to a project
- make recommendations for design changes
- highlight opportunities for ecological enhancement.

---

<sup>1</sup> *Guidelines for Ecological Report Writing Second Edition* December 2017



## 4. Baseline Ecological Conditions

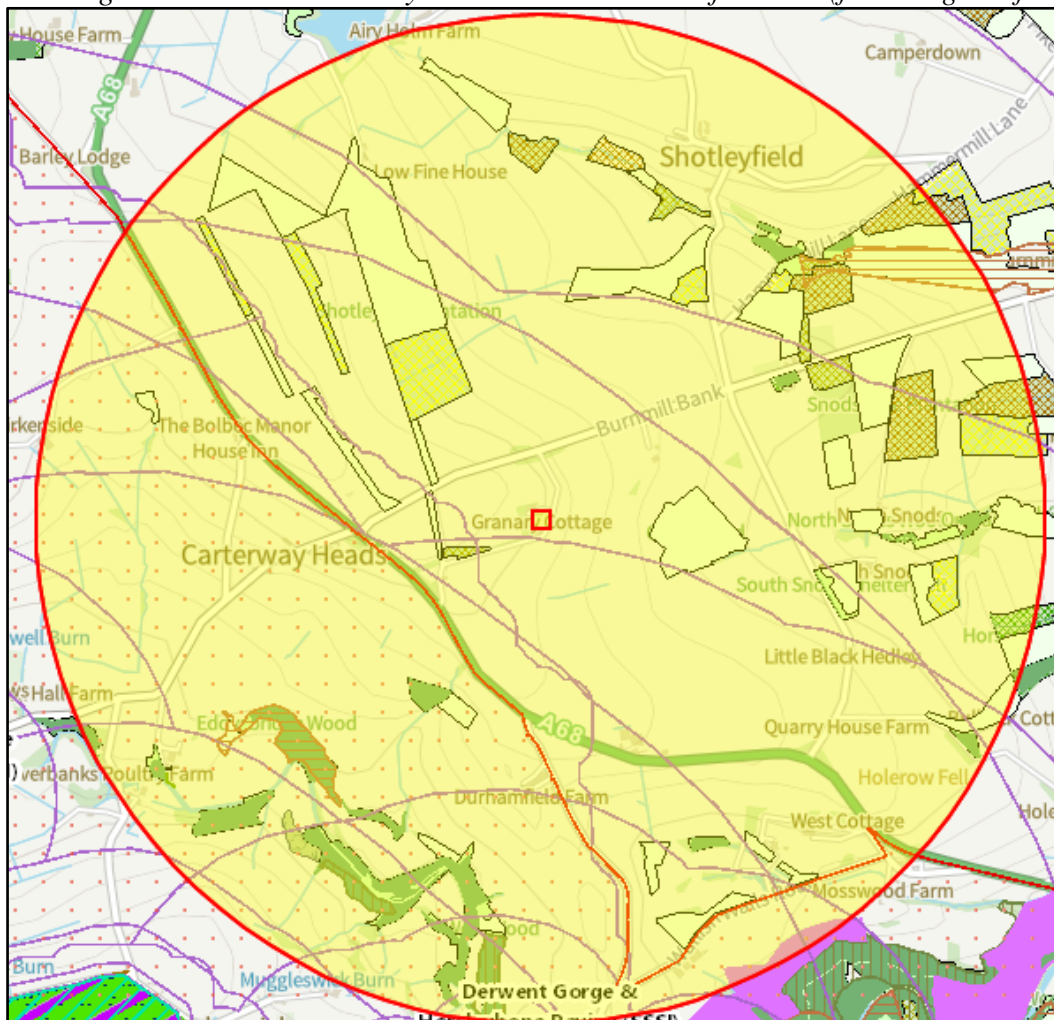
### 4.1 General

The buildings surveyed are located at NZ267806 as shown below

### 4.2 Designated Sites

The site is within the North Pennine Area of Natural Beauty (AONB) a statutory designated site, the development site also falls within the impact risk zones for the designated sites in the surrounding area.

Figure 4. Designated Sites and Priority Habitats within 2km of the site (from [magic.defra.gov.uk](http://magic.defra.gov.uk))



### 4.3 Habitats

Figure 4 shows BAP Priority Habitats, within 2km (listed under Section 41 of the Natural Environment and Rural Communities Act 2006). These habitats are mainly deciduous woodland, ancient and semi-natural woodland, wood pasture and parkland, good quality semi-natural grassland and traditional orchard.

## 4.4 Species and Species Groups

### 4.4.1 Desktop Search

Records from the Environmental Records Information Centre North East (ERIC) show results from within 2km of the site for bats. There is no granted European Protected Species licence for bats and none for great crested newts within 2km.

### 4.4.2 Habitat description

Granary Cottage is set within a steading surrounded by trees and shelterbelts. The yards to the south are mainly hardstanding as are the access roads to the north. Agricultural land consisting of improved grassland with boundaries of hedges and fences is present surrounding the site in all directions.

The area has good, sheltered feeding and protection immediately present. Bat roost potential will be present in the local residences and any suitable mature trees present in the area.

### 4.4.3 Bats

#### **Pre-existing information on the species at the site.**

There are no known pre-existing records for the site.

The closest record is for flight records of occasional Pipistrelle 45kHz and *Myotis sp.* bats within 400m to the north (2017) (ERIC North East).

#### **Status of species in the local/regional area.**

Data search results within 2km of the site consist of a roost of Pipistrelle 55kHz (*Pipistrellus pygmaeus*) 1.7km to the southwest (2021 R Hadden) and roosts of Whiskered/Brandt's (*Myotis mystacinus/brandtii*) and Pipistrelle 45kHz (*Pipistrellus pipistrellus*) 1.7km to the southwest (2013/2015). Noctule (*Nyctalus noctula*) 450m to the northeast. Foraging Brown Long-eared (*Plecotus auritus*) have also been recorded to the southwest. (ERIC North East - A full data set can be made available upon request).

Locally and regionally, the Common Pipistrelle is the most common bat. Both Pipistrelle 45kHz and 55kHz bats are frequent in northern England, although Pipistrelle bats are the most abundant species, they are thought to have declined by 70% between 1978 and 1993 (National Bat Colony Survey). Since 1997 monitoring by the National Bat Monitoring Programme (NBMP) has shown that bat numbers seem to be steady with small fluctuations up or down depending on the species and survey type carried out. The Brown long-eared bat is occasional with colonies much smaller in numbers than the Pipistrelle. Daubenton's, Natterer's and Whiskered/Brandt's bats are also occasional but widespread in Northumberland with an average colony size being about 35 adult bats. The Nathusius' Pipistrelle is a rare bat, has migratory habits and has been proved to fly across the North Sea from Bristol to Holland and has occasionally been recorded in Northumberland throughout the season.

#### **Bats – Daytime Risk Assessment**

Inspection results of the exterior revealed that the two-storey building affected by the proposals had crevices within the stone masonry and had a concrete tile roof with a bitumen felt sarking. To the rear two small lean-to single storey extensions are present on the north aspect. One being stone with a corrugated asbestos roof and the other pebbledashed brick with no roof. To the south is a recently re-roofed lean-to extension. Inside the cottage,

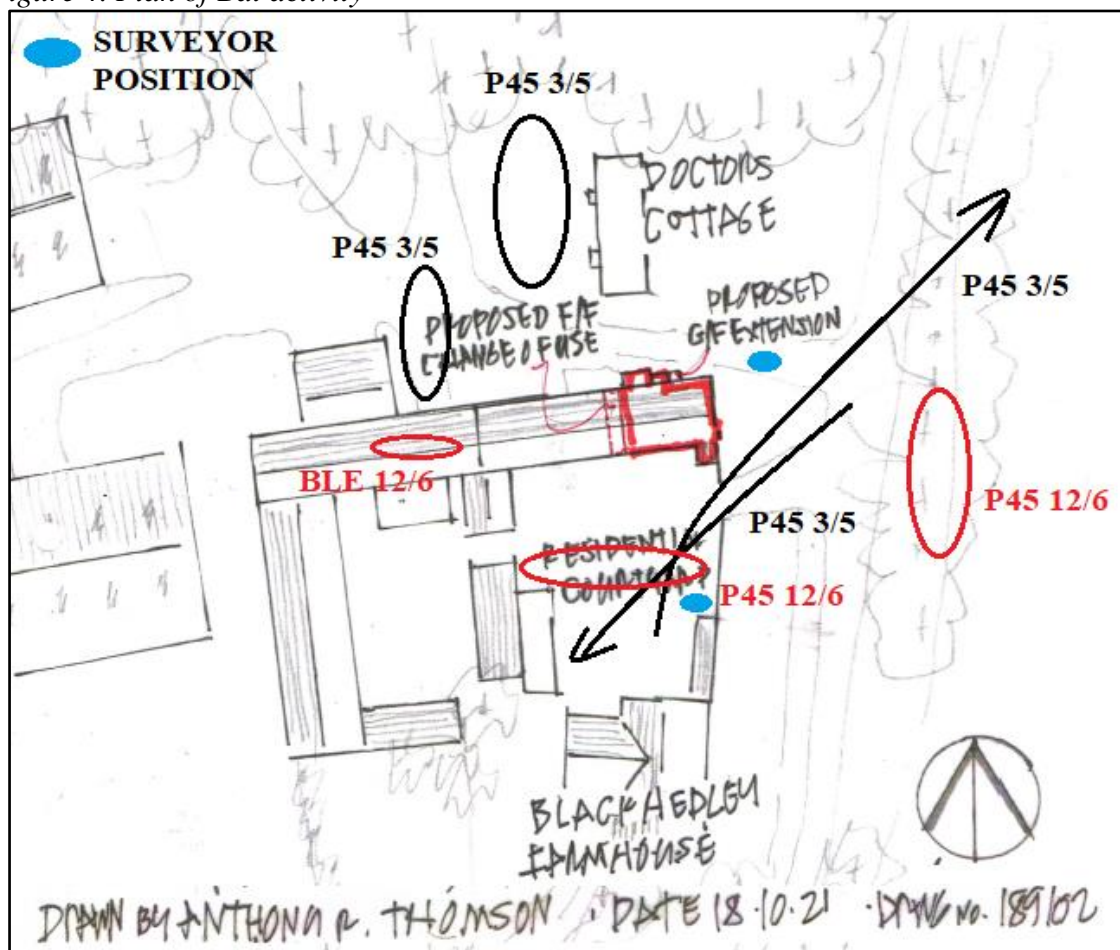
which had open access via open windows and through the kitchen, a few butterfly wings were present. There was no obvious evidence of bats present within the loft, which is accessed from the adjacent barn and through an enclosed section currently in daily use. Due to the roost potential giving a moderate risk two surveys were carried out.

No potential bat hibernation sites were identified in the building; however, bats may be present in any suitable crevice, deep in the walls.

### Bats – Activity Surveys

The emergence survey confirmed no bat emergence from the property however Pipistrelle 45kHz bats were first seen from the direction of the house and foraged during the survey to the north. The dawn survey identified no re-entry into the building though a Brown long-eared was seen in the barn to the west. Please see Appendix 2 for further details.

Figure 4. Plan of Bat activity



#### 4.4.4 Bird Assessment

No evidence of birds was noted within the building. A barn owl was seen to the east following the tree line during the dusk survey.

#### 4.4.5 Amphibians & Reptiles

##### Status of species in the local/regional area.

There are no ponds within 500m without a commuting barrier. (Magic Site 2019).

##### Survey

No standing water is present on site.

#### 4.4.6 Other Species

No other wildlife was noted during the survey.

### 5. Photographs of the Site



**Granary Cottage from the southwest**

**From the south**



**Kitchen area with no roof**



**From the northwest**



**Interior showing raised ceiling**



**Inside the lean-to to the south, roof previously replaced**





**Loft area above the cottage**



**Roof from the south**

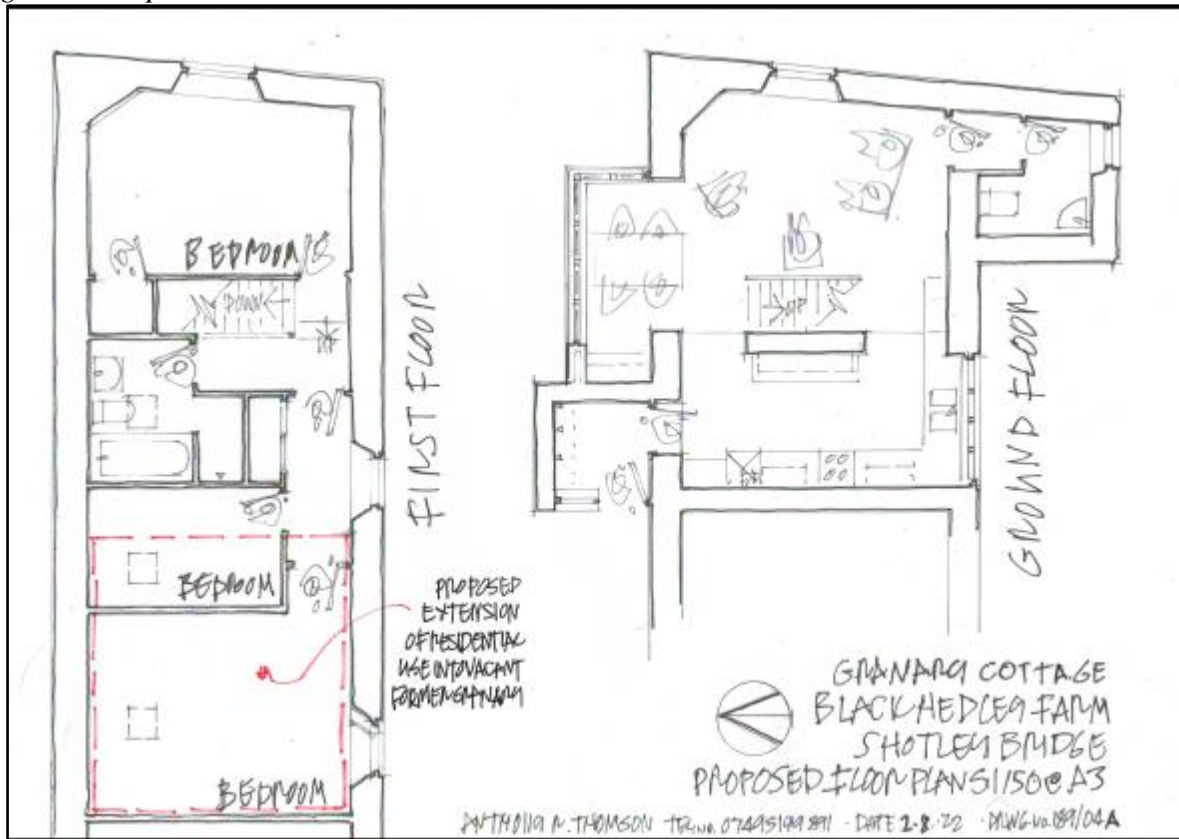


**Interior of the barn with plastered, open topped walls**

## **6. Description of Proposed Development.**

The proposals are to renovate the existing cottage and extensions and to convert a small area of the upper floor of the adjacent barn to allow space for a bathroom upstairs.

Figure 5. Proposed Works



## 7. Assessment of Impacts

### 7.1 Constraints

No constraints.

### 7.2 Site Based Impacts.

The building due to be extended has low conservation significance for bats as a roost site at present. This assessment takes into account the location of the building and the good feeding habitat and shelter within 300m, the results of the inspection and survey, the construction and condition of the building and the potential of the building as a maternity bat roost site.

Pre-activity impacts are negligible with no changes being made to the use of the buildings.

Mid-activity impacts will be high for bats if no precautions are undertaken. The works may cause disturbance, injury and death to bats or birds, if no mitigation is carried out in the eventuality of an animal being located during any destructive works. The proposed works though will not impact on the roosts identified. With mitigation and the retention of the roosts as at present any impacts would be negligible.

#### Site Assessment

The site is considered to have low conservation significance for bats.

### **7.3 Impacts on the SSSI.**

The development site does fall within the risk impact zones for the nearby designated sites in the area, however the works are unlikely to greatly impact these designated areas if pollution prevention is undertaken.

## **8. Mitigation and Enhancement.**

The National Planning Policy Framework (NPPF) requires that the planning system minimizes impacts on biodiversity and provides net gains. The following recommendations will likely be translated into conditions placed on any planning consent. They are intended to reduce the risk of this development to protected species and habitats.

Natural England guidelines on mitigation states timing constraints and like-for-like replacement is a minimum requirement.

### **8.1 Pollution Prevention**

To protect any nearby waterways, measures to be made to ensure that there is no runoff (herbicides, wheel washing, cement washings etc.) either during construction to prevent pollution or sediment issues, or after development. (See Environment Agency's Pollution Prevention Guidelines (PPG5)) for guidance.

### **8.2 On Site Mitigation**

Mitigation will be in the form of the any existing crevices that may be present to be retained as at present in the renovated building (No re-pointing is planned) and the provision of a barn owl nesting box in a nearby tree. Please see plan below for location.

Wooden beams and timbers will be treated only with 'bat friendly' products, permethrin or cypermethrin as insecticides for example. Further information is available if the contractor requires it.

A traditional bitumen felt (F1) or wood sarking that would give bats some grip will be used in the region of any bat roost potential and not a more modern smooth or breathable roofing membrane (BRM) that may fray and entrap bats. No BRM (Breathable Roofing Membrane) to be used in any areas where bats could gain access to roof as a result of new roost provisions.

Any external lights will be set on a motion detector and short timer and be positioned in such a way that they do not shine on any of the bat access positions or the buildings, as this can deter bats. Please see references Bat Conservation Trust/Institute of Lighting Engineers' Guidance 2018.

### **8.3 Mitigation Summary**

To maintain bat and bird populations in the area the following will be carried out:-

- A Method Statement for bats will be followed for the extension of the building, please see Appendix 3.
- Any external lighting will be on a relatively short timer, directed away from bat roost access points and flight paths and motion-sensitive only to large objects.

- Any nesting bird species that may be present will be allowed access to the nest until the young have fledged between April and October.

Figure 6. Mitigation Locations

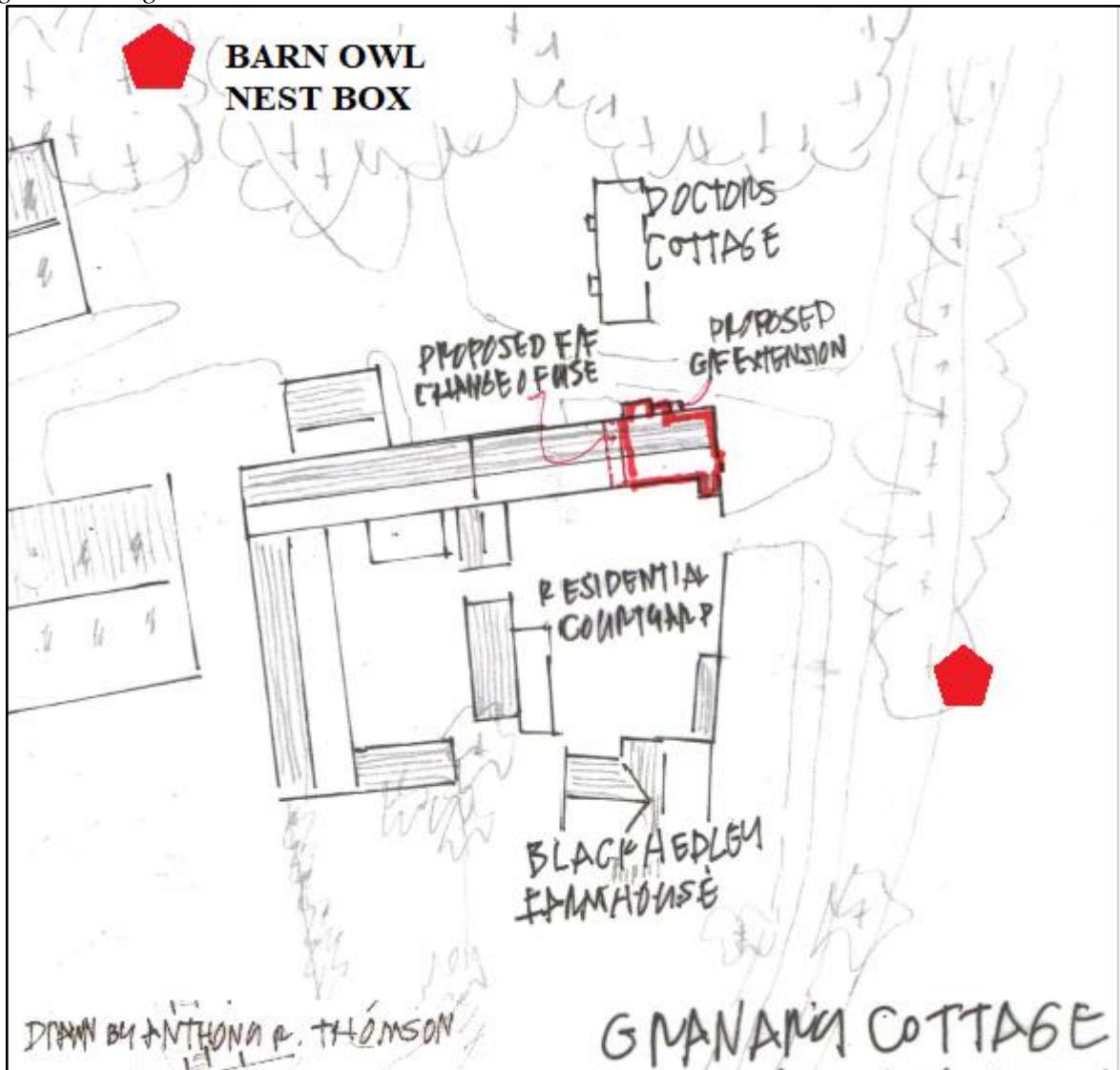


Table 1 Mitigation Summary

Location	Mitigation Type
Renovated building	Any crevices will be retained at the eaves wall tops as at present.
Tree to the east	Barn Owl nest box

#### 8.4 Enhancement

Not applicable.

#### 8.5 Monitoring

Due to low impact on bat activity on site, by the proposals, no monitoring after the development is completed will be required to assess the success of mitigation. (Bat Mitigation Guidelines 2004, Section 7.2). Ruth Hadden available to liaise with the owners as required regarding the mitigation.



## 8.6 Conclusions

- Without any mitigation the proposed works will result in minimal impact on any bat population that may be present.
- The provision of mitigation in the form of timing and care will reduce the impact to negligible.
- The provision of mitigation in the form of retention of any roosting opportunities for bats that may be present at the eaves and the provision of a barn owl nest box will give a small net biodiversity gain over the existing building.

## 9. References

- Barn Owl Trust (2002), Barn Owls on Site. English Nature
- Chartered Institute and Ecology and Environmental Management (CIEEM) (2017). Guidelines for Ecological Report Writing 2<sup>nd</sup> Ed.
- Collins J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn). Bat Conservation Trust, London.
- Corbet and Harris (1991). The Handbook of British Mammals. Blackwell.
- Durkin J L (2016) Amphibian Atlas of North East England.
- English Nature (2004) Bat Mitigation Guidelines. EN
- Environment Agency's (2007) Pollution Prevention Guidelines: Works and maintenance in or near water: PPG5 <https://www.sepa.org.uk/media/100531/ppg-5-works-and-maintenance-in-or-near-water.pdf>
- Institution of Lighting Professionals/Bat Conservation Trust (2018) Bats and artificial lighting in the UK, Guidance Note 08/18.
- Joint Nature Conservancy Council (2004) The Bat Workers Manual. JNCC.
- Bat boxes:** <https://www.nhbs.com/low-profile-woodstone-bat-box>
- Build-in WoodStone Bat Box** <https://www.nhbs.com/build-in-woodstone-bat-box>
- Barn Owl Box :** <http://www.barnowltrust.org.uk/infopage.html?Id=41>
- Sparrow Terrace:** [www.nhbs.com/lsp-schwegler-sparrow-terrace](http://www.nhbs.com/lsp-schwegler-sparrow-terrace)
- Swift boxes:** <https://www.nhbs.com/vivara-pro-cambridge-swift-nest-box>
- Bird box :** <https://www.nhbs.com/1b-schwegler-nest-box>

## APPENDIX 1. LEGISLATION RELATING TO PROTECTED SPECIES

### Bats

All bats are protected under the Wildlife and Countryside Act (Schedule 5). They are also included in Schedule 2 of the Conservation Regulations 2017. The Act and Regulations make it illegal to:

Intentionally or deliberately kill, injure or capture (take) bats

Deliberately disturb bats (whether in a roost or not)

Damage, destroy or obstruct access to bat roosts

The Countryside and Rights of Way Act 2000 extended the protection given to bats to cover *reckless* damage or disturbance.

A bat roost is interpreted as 'any structure or place which is used for shelter or protection', whether or not bats are present at the time.

### Barn Owls

Similarly, the Barn Owl is protected under Part 1 of the Countryside Act 1981 and is listed on Schedule 1, which gives them special protection. It is an offence, with certain exceptions to:

- Intentionally or deliberately kill, injure or capture (take) any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'.
- Intentionally take or destroy a wild barn owl egg.
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing young.
- Intentionally or recklessly disturb any dependant young or wild barn owls.

### Hedgehog

The hedgehog is protected under the Wildlife and Countryside Act (Schedule 6) and is a priority species in the UK BAP and Northumberland BAP.

The Act and Regulations make it illegal to:

- Intentionally or deliberately kill, injure or capture (take) using certain methods.
- Hedgehogs are closely linked with urban and in particular garden areas and can be commonly found hibernating beneath garden litter.

### Biodiversity

The National Planning Policy Framework (NPPF) 2012 requires Local Planning Authorities (LPA's) to seek to deliver biodiversity enhancement through the planning system, see paragraphs 9, 109 and 118. In particular Paragraph 109 includes a statement:

The planning system should contribute to and enhance the natural and local environment by:

- 'minimising impacts on biodiversity and providing net gains in biodiversity.'

## APPENDIX 2. SURVEY DATA

**Table 2 Emergence survey results.**

Date	Bat Activity
3 May 2022 8.49pm 8.59pm 9.05pm 9.09pm 9.12-9.25pm 9.14pm 9.15pm 9.25-10.00pm 10.15pm	Sunset. Barn owl seen flying to the east of the site. Pipistrelle 45kHz bat heard not seen 2 Pipistrelle 45kHz bats flew across the yard to the northeast. 3 Pipistrelle 45kHz bats foraged to the north Pipistrelle 45kHz bat flew across the yard to the southwest No bats inside the building loft area Pipistrelle 45kHz bat foraged briefly in the yard Survey concluded
12 June 2022 3.48-4.05am 3.51-4.00am 3.55-4.11am 4.28am 4.45am	Pipistrelle 45kHz bat foraged over the track to the east of the site. Brown long-eared bat foraged in the west end of the adjacent building. Pipistrelle 45kHz bat foraged in the courtyard south of the building. Sunrise Survey concluded

### **APPENDIX 3. BAT METHOD STATEMENT FOR CONTRACTORS**

This statement should be copied to the site owner, architect, clerk of works and to those contractors whose work may affect bat roosts including those involved in conversion, stone treatment, roofing and building works.

Bats are fully protected by law. To avoid breaking the law by damaging or disturbing bat roosts, resulting in possible imprisonment, fines or confiscation of equipment, certain procedures have to be followed.

#### **Legislation**

All bats are protected under the Wildlife and Countryside Act (Schedule 5). They are also included in Schedule 2 of the Conservation Regulations 2017. The Act and Regulations make it illegal to:

Intentionally or deliberately kill, injure or capture (take) bats

Deliberately disturb bats (whether in a roost or not)

Damage, destroy or obstruct access to bat roosts

The Countryside and Rights of Way Act 2000 extended the protection given to bats to cover *reckless* damage or disturbance.

A bat roost is interpreted as 'any structure or place which is used for shelter or protection', whether or not bats are present at the time.

Similarly the Barn Owl is protected under Part 1 of the Countryside Act 1981 and is listed on Schedule 1, which gives them special protection. It is an offence, with certain exceptions to:

- Intentionally or deliberately kill, injure or capture (take) any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'.
- Intentionally take or destroy a wild barn owl egg.
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing young.
- Intentionally or recklessly disturb any dependant young or wild barn owls.

#### **Identifying roosts**

Pipistrelle the most common bat, favours small crevices and spaces between brickwork, stone and roofing felt. Bats are small mammals and when at rest the bodies are only 4-6 cm long, their fur colour can range from brown to pale and dark grey. When disturbed the bat is likely to be torpid and unable to fly effectively for some minutes, because of this they are vulnerable to injury as they are not fast moving and may fall to the ground, breaking bones or be accidentally crushed. Basically, when material from the roof and tops of the walls is removed any crevices underneath should be checked to ensure that no bat has been disturbed.

Other traces that can indicate a past presence of bats are their droppings. These resemble mouse droppings but unlike mouse droppings can be crumbled to dust between finger and thumb. Droppings may be found on wall tops and beneath slates and tiles on top of any sarking.



**Photo showing disintegrated bat droppings beneath coping stones. If examined carefully, in the black dust exoskeletons of insects can be seen shining.**

### **Timing**

Any development work involving the removal of the existing roof materials or stonework will be carried out avoiding the hibernation period (November to March inclusive). Periods of cold weather (below 5°C including night temperatures) will also be avoided if possible as any bats present will be in hibernation torpor and be extremely vulnerable. If torpid bats are encountered and disturbance is unavoidable the bat will be taken into care and fed until suitable conditions for release at the site is possible.

### **Contractors**

All contractors will be aware that bats may be present in the area and could be present within the loft space and may be found torpid in crevices if any. Table 1 below highlights where bats may be found and the recommendations. Any bats found during operations will have the cavity re-covered for its safety and any work in the vicinity will cease. Ruth Hadden to be informed for advice immediately (01661 886562). As only licensed bat handlers can move bats and the contractors are not permitted to handle bats, the bat will be allowed to disperse of its own accord overnight.

**Table 1 General Methodology for Extension Works**

<b>STRUCTURE</b>	<b>METHOD</b>	<b>INSPECT</b>
Roofs	Remove any ridge tiles, tiles/slates or roof coverings including loose felt by hand, lifting vertically to prevent any bats from being crushed. Removal of any timbers/beams.	Check any crevices underneath the roofing materials including the underside, as it is removed. Check any crevices around the beams as work proceeds.
Walls/Eaves	Expose the wall tops. Remove any gutters. Dismantle any walls required, by hand.	Examine for bat droppings and any wall cavities for bats.
Walls - Pointing	Only point crevices where the full depth can be seen otherwise leave as at present.	Check deep crevices for the presence of bats using a torch.
Windows/doors	Remove windows, doors and frames by hand, where gaps exist around the frames.	Examine any wall cavities exposed. Avoid blocking any external pre-existing gaps.

If a barn owl is found unexpectedly during operations the cavity will be re-covered or protected and work will cease in that area. Ruth Hadden to be informed (01661 886562) immediately for assistance. Any nesting bird species will be allowed access to the nest until the young have fledged between April and October.

## Mitigation Summary

As no re-pointing is planned all crevices to be retained as at present at the eaves and within the masonry.

Wooden beams and timbers will be treated only with 'bat friendly' products, permethrin or cypermethrin as insecticides for example. Further information is available if the contractor requires it.

A traditional bitumen felt (F1) or wood sarking that would give bats some grip will be used in the region of any bat roost potential and not a more modern smooth or breathable roofing membrane (BRM) that may fray and entrap bats. No BRM (Breathable Roofing Membrane) to be used in any areas where bats could gain access to roof as a result of new roost provisions.

Any external lights will be set on a motion detector and short timer and be positioned in such a way that they do not shine on any of the bat access positions or the buildings, as this can deter bats. Please see references Bat Conservation Trust/Institute of Lighting Engineers' Guidance 2018.

## Barn Owl Mitigation

A barn owl nesting box will be erected on a tree to the southeast of the building, facing northeast out of the prevailing wind, at least 30 days before work is to commence and disturbance kept to a minimum. This is to prevent the owls from being overly disturbed and moving on by providing an alternative roosting area. This nesting box will be maintained 5 years after development work has ceased.

Other precautions are as follows

- Barn owls can be tolerant of noise etc when they move in.
- Position static noisy machinery away from any building occupied by owls.
- Contractors will not disturb the barn owl box or any known nesting site.
- No steep-sided container or water will be left uncovered on site – to avoid the risk of owls drowning.
- The landscape around the buildings will be maintained and made good after development to provide rough grassland around the periphery of the site as hunting areas for the owls.

## Location of Mitigation

