

Bourne Court – Cottage Bat Survey Report

Prepared for Gemma and Richard Pearce

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Rev00

SURVEY AND REPORT VALIDITY

It is important that planning decisions are based on up-to-date ecological reports and survey data. However, it is difficult to set a specific timeframe over which reports or survey data should be considered valid, as this will vary in different circumstances. In some cases there will be specific guidance on this (such as for the age of data which may be used to support an EPS licence application) but in circumstances where such advice does not already exist, the Chartered Institute of Ecology and Environmental Management (CIEEM) has provided the general advice set out below.

<i>Age of Data / Survey / Report</i>	<i>Validity</i>
Less than 12 months	Likely to be valid in most cases.
12-18 months	<p>Likely to be valid in most cases with the following exceptions:</p> <ul style="list-style-type: none"> Where a site may offer existing or new features which could be utilised by a mobile species within a short timeframe; Where a mobile species is present on site or in the wider area, and can create new features of relevance to the assessment; Where country-specific or species-specific guidance dictates otherwise.
18 months to 3 years	<p>A professional ecologist will need to undertake a site visit and then review the validity of the report.</p> <p>Some or all of the other ecological surveys updated.</p>
Protected Species Licensing	Licence applications usually only possible using data less than 2 years old

The likelihood of surveys needing to be updated increases with time and is greater for mobile species or in circumstances where the habitat or its management has changed significantly since the surveys were undertaken. Factors to be considered include (but are not limited to):

Whether the site supports, or may support, a mobile species which could have moved on to site, or changed its distribution within a site;

Whether there have been significant changes to the habitats present (and/or the ecological conditions/functions/ecosystem functioning upon which they are dependent) since the surveys were undertaken, including through changes to site management;

Whether the local distribution of a species in the wider area around a site has changed (or knowledge of it increased), increasing the likelihood of its presence.

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1 INTRODUCTION

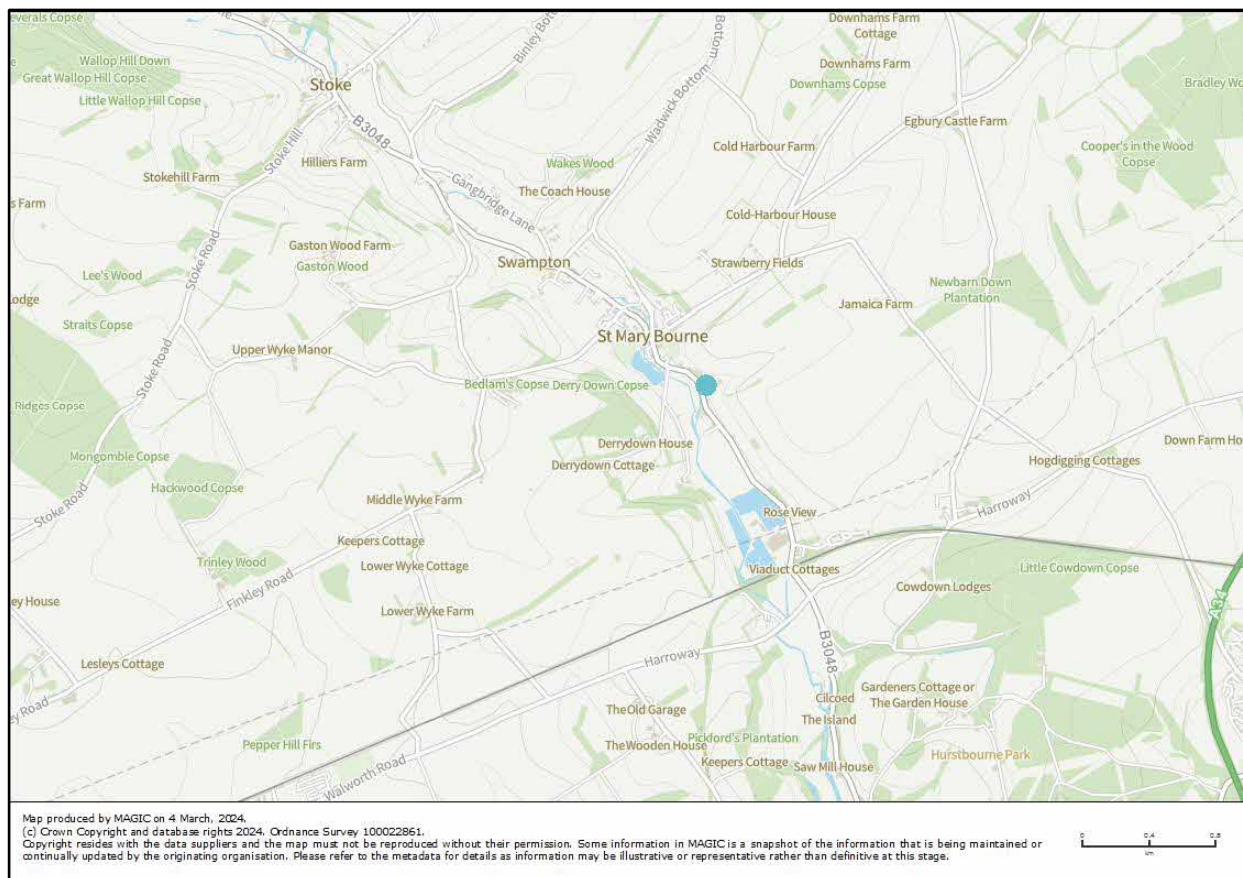
1.1 General

This report has been completed in relation to the proposed refurbishment and extension to the Cottage at Bourne Court, St Mary Bourne, Hampshire, SP11 6BT (*Figures 1 & 2* and OS Grid Reference SU 42545 50082).

A Preliminary Roost Assessment (PRA) and walkover survey was conducted on 17th August 2022 and updated on the 26th February 2024 by Turnstone Ecology Ltd. Bat Activity Surveys were completed at the site by Turnstone Ecology Ltd throughout August and September 2022. Previous surveys on site included a PRA and activity surveys through 2021 of the Main House on site.

This report details survey and assessment methodology along with the results of a desk-based study and on-site surveys. It also provides an assessment of potential impacts and appropriate mitigation to offset any impacts associated with the proposal and to satisfy national and local planning policies.

Figure 1. Location of proposed development (Blue dot)

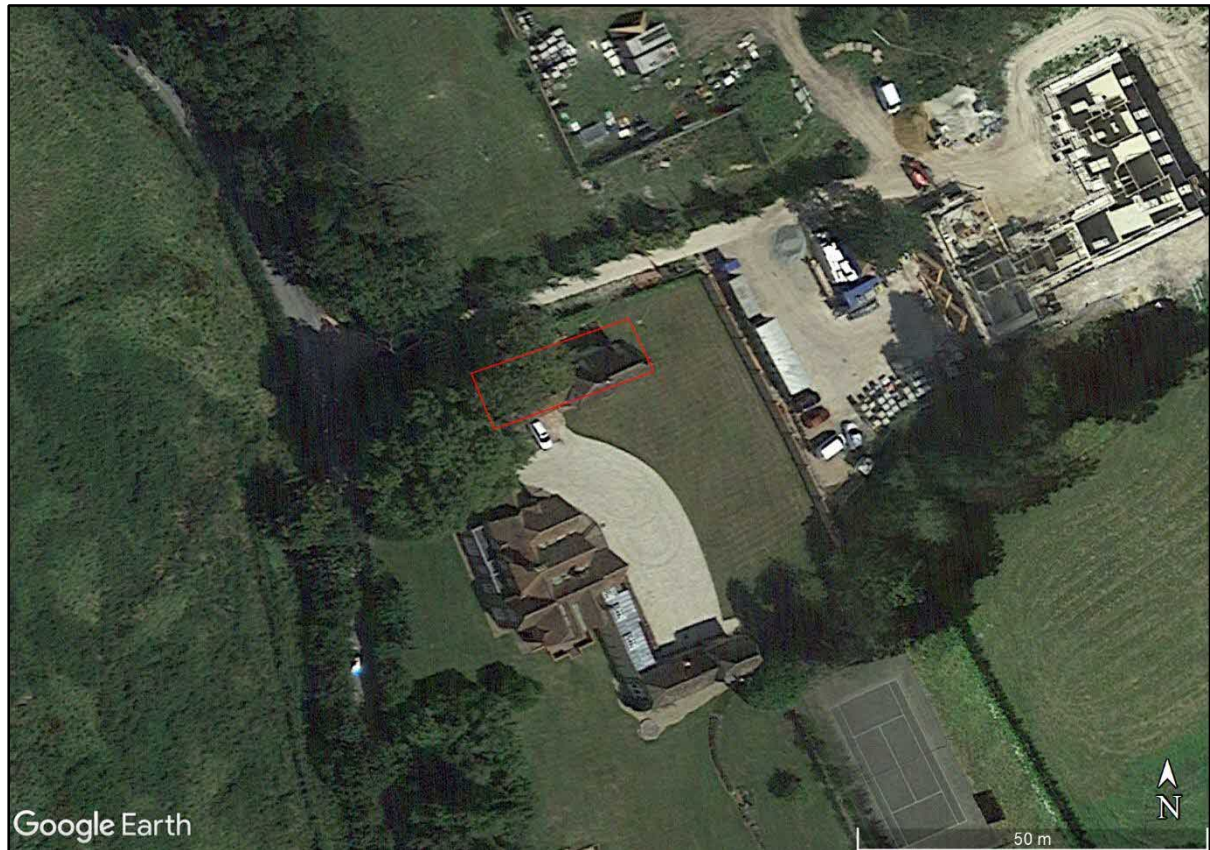


1.2 Ecological Context

The proposed development site is located at Bourne Court on the southern edge of St. Mary Bourne, Hampshire. The site currently consists of a residential dwelling with a separate cottage (subject of

current planning application), pool house and associated gardens and tennis court. The small village of St. Mary Bourne is to the north with agricultural land dominating the surroundings along with woodland and the Bourne Rivulet 100m west of the site.

Figure 2. Aerial photograph of the site



2 METHODS

2.1 Desk-based Study

Information relating to designated sites, sites where European Protected Species (EPS) Licences and Bat Mitigation Licenses have been granted between 2009 and May 2022 (only available in England) and historic records of protected species within 2 km of the proposed development site were obtained from Magic (www.magic.gov.uk) and other freely available information on the internet, such as planning portals.

Any species-specific historic records are detailed within the relevant species accounts in the *Results* section.

2.1.1 Bats

Preliminary Roost Assessment

The Preliminary Roost Assessment (PRA) was completed on the 17th August 2022 and 26th of February 2024 by Tristan Evans. Tristan Evans holds a Natural England Class Licence (2016-22374-CLS-CLS) for the disturbance of bats in all counties of England.

The buildings were assessed for potential to support bat roosts, and this involved a consideration of various factors including;

- Light levels;
- Temperature regime and protection from weather;
- Access to the interior of the building or to other suitable roost sites;
- Potential roost sites;
- Building construction;
- Tree structure; and
- Habitat context.

Based on these factors, an assessment was made of whether the building affected by the proposals might support bats and the type and number of roosts that might be present.

A detailed inspection was made of the exterior and interior of any buildings within the proposed development boundary for any evidence of bat use, such as live or dead bats, droppings, scratch marks, staining and prey remains, and in some cases the absence of cobwebs. Large quantities of cobwebs in roof voids or at access points tend to be suggestive of no bat use, although this evidence is not conclusive.

Features identified as possible bat access points or potential roosting locations were thoroughly searched where possible, using powerful torches and binoculars to facilitate the process. An endoscope and ladders were also used to enable more detailed inspection of cracks and crevices as far as access allowed.

The survey was undertaken in good light conditions and access to all areas of the building was possible. This type of survey can be completed at any time of year though the optimal time period for completion is at times when bats are most likely to be present in buildings (April-October). That said evidence of bats, if present in sheltered locations, is likely to persist well beyond this time period.

Buildings and trees are categorised according to their suitability for roosting bats as follows (taken from Bat Survey Guidelines, 3rd Edition):

Negligible – Negligible or no roosting features within the tree or building that could be used by roosting 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 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). Or a tree of sufficient size and age to contain potential roost features but with none seen from the ground, or features seen with only very limited roosting potential.

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 and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).

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 and surrounding habitat. They could be suitable for maternity roosts or hibernation sites.

Confirmed – Roosting bats confirmed as being present, either by the discovery of live or dead bats, droppings, prey remains, scratching or fur-staining.

Habitats were also assessed for their suitability for use by foraging or commuting bats. Areas of particular interest vary between species, but generally include sheltered areas and those habitats with good numbers of insects, such as woodland, scrub, hedges, watercourses, ponds, lakes and more species-rich or rough grassland.

Activity Surveys

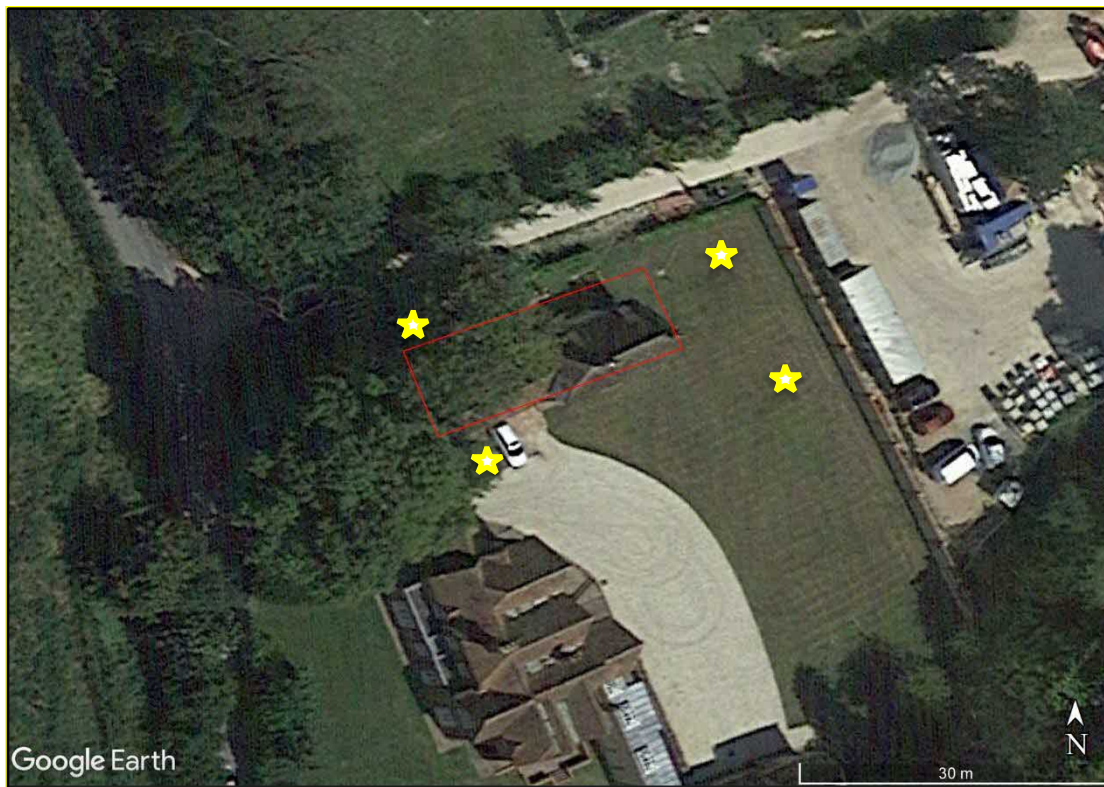
Evening emergence surveys are the primary methods for locating roosts in trees, buildings or built structures, as bats are not always found by internal and external inspection surveys (*e.g.*, if the bats roost in areas that cannot be searched and/or leave little or no visible trace). These surveys can also give a reasonable estimate of the number of bats present.

Activity surveys were completed in August and September 2022 by four ecologists all of which were experienced at completing bat surveys. The surveyors used Echo Meter Touch Pro 2 Bat Detectors with

digital records and information on time, species and behaviour of any bats recorded were noted on to survey forms. Bat calls were continually recorded for the duration of the survey to ensure all bat activity was saved. Audio tracks were downloaded and assessed using the appropriate software to confirm the identity of bats noted during the survey. Along with the bat detectors Canon AX11 Professional Series IR camera, along with IR lamp, were used on both surveys.

A total of four surveyor positions were selected so that surveyors were able to record any emergence activity around the building (*Figure 3*). General activity around the site could also be recorded from the surveyor locations.

Figure 3. Surveyor Positions



The survey times and conditions are shown in *Table 1* below. The surveys were conducted during appropriate weather conditions and access was sufficient to successfully complete the surveys.

Table 1. Survey timings and conditions

	Dusk Survey 1 17/08/2022		Dusk Survey 2 31/08/2022		Dusk Survey 3 14/09/2022	
Time	Start	End	Start	End	Start	End
	20:09	21:54	19:39	21:24	19:07	20:52
Sunset/rise	20:24		19:54		19:22	
Temp (°C)	19	17.5	20	17.5	19	15
Wind (Beaufort)	1	1	0	0	1	1
Cloud (Octas)	3	7	2	2	1	0
Precipitation	None		None		None	

2.1.2 Constraints

Access was possible to all areas of the buildings during the PRA survey and all areas of the building could be seen from the selected surveyor positions.

2.2 Criteria for Assessment

The scientific value of habitats for nature conservation is assessed according to widely accepted criteria of which the most important are naturalness, extent, rarity, and diversity.

The assessment of impacts is based on the principles within Chartered Institute of Ecology and Environmental Management (CIEEM) Environmental Impact Assessment (EIA) Guidance (2022) which assesses the impacts of the proposal on ecological receptors taking into consideration extent, duration, reversibility, timing, frequency and certainty.

Mitigation and enhancement are designed to reduce the level of impact upon receptors and provide ecological enhancement in order to meet current legislation and planning policy. The information below has therefore been considered during assessment.

Criteria that have been developed to assist in the identification of statutory Sites of Special Scientific Interest (SSSIs) (JNCC 2013)

Habitats and species of Principal Importance included under Section 41 (England) and Section 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006

The legal status of habitats and species according to the EU 'Habitats' Directive 1992

CIEEM Guidelines (2022) for assessing the value of ecological receptors within a defined geographical context using the following categories: international (*i.e.*, Europe); UK and national (England); regional; county; Unitary Authority; local or parish; and zone of influence.

Receptors are identified as 'important' at these levels, or as 'not important'

Species protected by European directives

Species protected by the *Wildlife and Countryside Act 1981* (as amended)

Other species listed as scarce or notable in literature issued by conservation organisations or learned societies *e.g.*, vascular plant species listed in Stewart *et al.* (1994) and Red and Amber List Birds of Conservation Concern (Stanbury *et al.* 2021)

Local Wildlife Site selection criteria

National Policy Planning Framework (NPPF), 2023

BS42020:2013 – Biodiversity Code of practice for planning and development

Protected species handbooks and best practice guidelines

3 RESULTS

3.1 Desk Study

3.1.1 Designated Sites

The development site is located within an Area of Outstanding Natural Beauty, North Wessex Downs.

3.1.2 Protected Species Licence Sites (Bats)

Four Protected Species Licences for relevant species has been granted within 2 km of the proposed development site;

2019-44106-EPS-MIT was issued for the destruction of a Common Pipistrelle (*Pipistrellus pipistrellus*) resting place at a site located immediately south of the proposed development site.

EPSM2023-5542 was issued for the destruction of a resting place of Common Pipistrelle, Serotine (*Eptesicus serotinus*) and Brown Long-eared (*Plecotus auritus*) at a site located 900m northwest of the proposed development site.

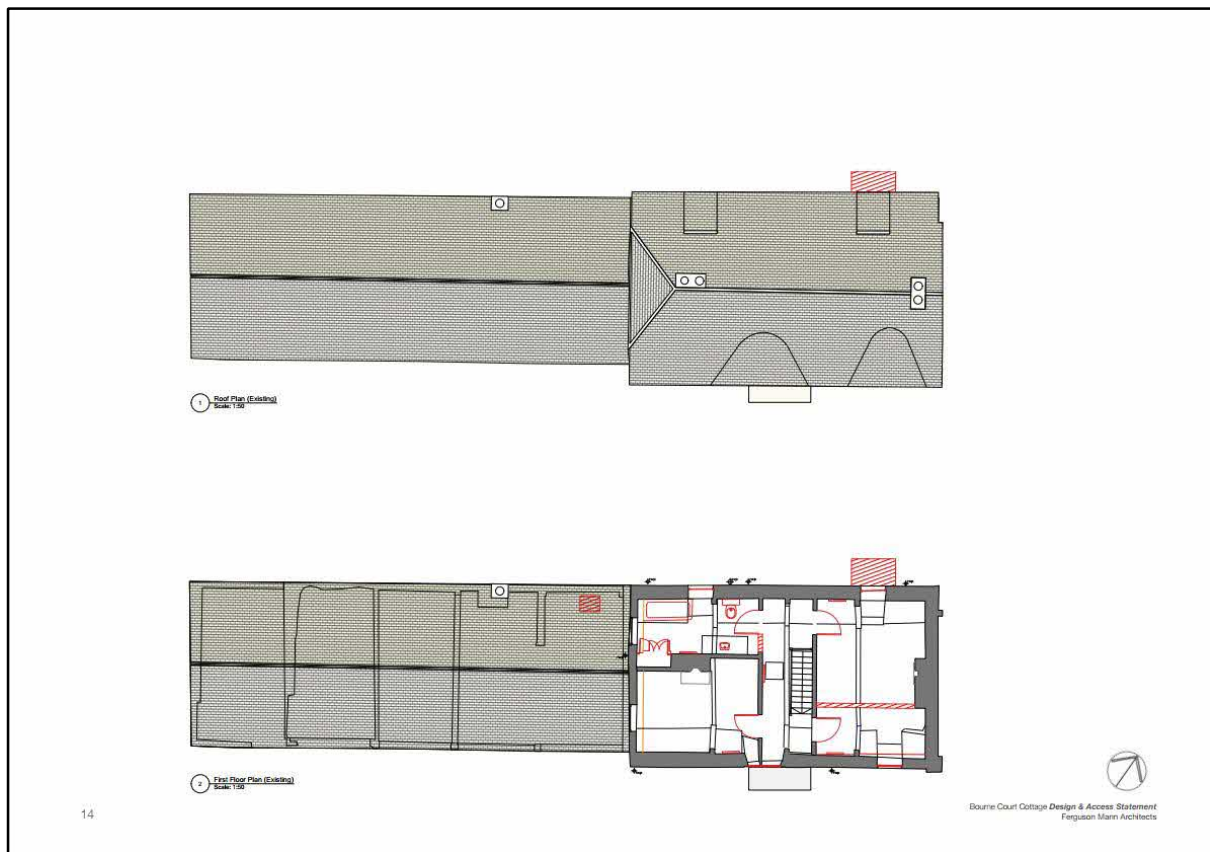
2020-48619-EPS-MIT was issued for the destruction of a breeding and resting site of Common Pipistrelle, Brown Long-eared and Whiskered bat (*Myotis mystacinus*) at a site located 1.6 km of the proposed development site.

2014-5320-EPS-MIT was issued for the destruction of a resting place of Common Pipistrelle, Serotine, Brown Long-eared and Natterers bat (*Myotis nattereri*) at a site located 1.8 km northwest of the proposed development site.

3.1.3 Preliminary Roost Assessment

The site comprises a disused cottage with attached to the western aspect (*Figure 4*).

Figure 4. Existing site plans



The cottage (*Plates 1-3*) is formed of red brick on a stone foundation with a pitched, clay tiled roof. Outbuildings are located attached to the western aspect of the cottage. These are of a similar roofing construction to the house however the walls mainly consist of overlapping wooden boards and large wooden doors with a small amount red brick wall to the northern aspect.

The majority of the cottage has a white painted exterior wall finish apart from the eastern gable end which has hanging tiles on the upper third of the building and wooden cladding to the lower thirds of building. Two chimneys are present on the cottage with a further chimney located within the extension. The windows are single glazing and similarly to the rest of the construction, are in a dilapidated state.

Internally there is a loft void (*Plate 4*) above the cottage and this provides potential roosting features. Access through open doorways is available to the majority of outbuilding and roosting potential is present here also.

Evidence and suitable features

The cottage has numerous suitable features for roosting bats including;

- Lifted/ missing roof tiles (*Plate 5*);
- Lifted ridge tiles;
- Missing mortar at the verge;
- Dilapidated dormer windows with hanging tiles;
- Lifted lead flashing and missing mortar/ cement flashing around the chimneys;

Dilapidated soffit boxes (*Plate 5*);
Gaps at barge boarding repaired with wooden boards; =
Hanging tiles and wood cladding on the eastern gable end (*Plates 2 and 3*); and
Roofing beams and joints

During the August PRA around 20 droppings characteristic of Pipistrelle species were recorded at the eastern gable wall associated with the hanging tiles and cladding. No evidence was noted elsewhere externally, within the loft void of the Cottage or within the outbuilding.

Plate 1. Disused Cottage – Southeastern aspect



Plate 2. Disused Cottage – Northeastern aspect



Plate 3. Disused Cottage – Northwestern aspect



Plate 4. Cottage Roof Void



Plate 5. Missing roof tiles



Plate 6. Locations of gaps at roof tiles and lead flashing



3.1.4 Bat Activity Surveys

Following the results of the first Preliminary Roost Assessment, three Bat Activity Surveys were completed in August and September 2022 ecologists from Turnstone Ecology.

During the dusk survey on the 17th of August 2022;

at 20:42 a Common Pipistrelle emerged from the hanging tiles on the eastern aspect gable end (*Figure 5 – Line 1*);

at 20:45 a second Common Pipistrelle emerged from the wooden cladding on the eastern aspect gable end (*Figure 5 – Line 2*);

at 20:49 a third Common Pipistrelle emerged from the hanging tiles on the eastern aspect gable end (*Figure 5 – Line 3*).

Figure 5. 17/08/2022 emergences



During the survey on the 31st of August 2022;

at 20:10 a Common Pipistrelle emerged from the hanging tiles on the eastern aspect gable end (*Figure 6 – Line 1*)

at 20:23 a Common Pipistrelle emerged from the lead flashing around the chimney of the cottage (*Figure 6 – Line 2*)

at 20:49 a Common Pipistrelle emerged from the wooden cladding on the eastern aspect of the gable end (*Figure 6 – Line 3*).

Figure 6. 31/08/2022 emergences



During the survey on the 14th of September 2022;

at 19:19 a Common Pipistrelle emerged from the hanging tiles on the eastern aspect gable end (Figure 7 – Line 1);

at 19:42 a Common Pipistrelle emerged from the missing roof tiles on the extension to the western aspect (Figure 7 – Line 2).

Figure 7. 14/09/2022 emergences



Regular Common Pipistrelle (*Pipistrellus pipistrellus*), sporadic Brown Long-eared, Serotine (*Eptesicus serotinus*) and Myotis sp. were recorded foraging around the buildings and surrounding grassland throughout the surveys.

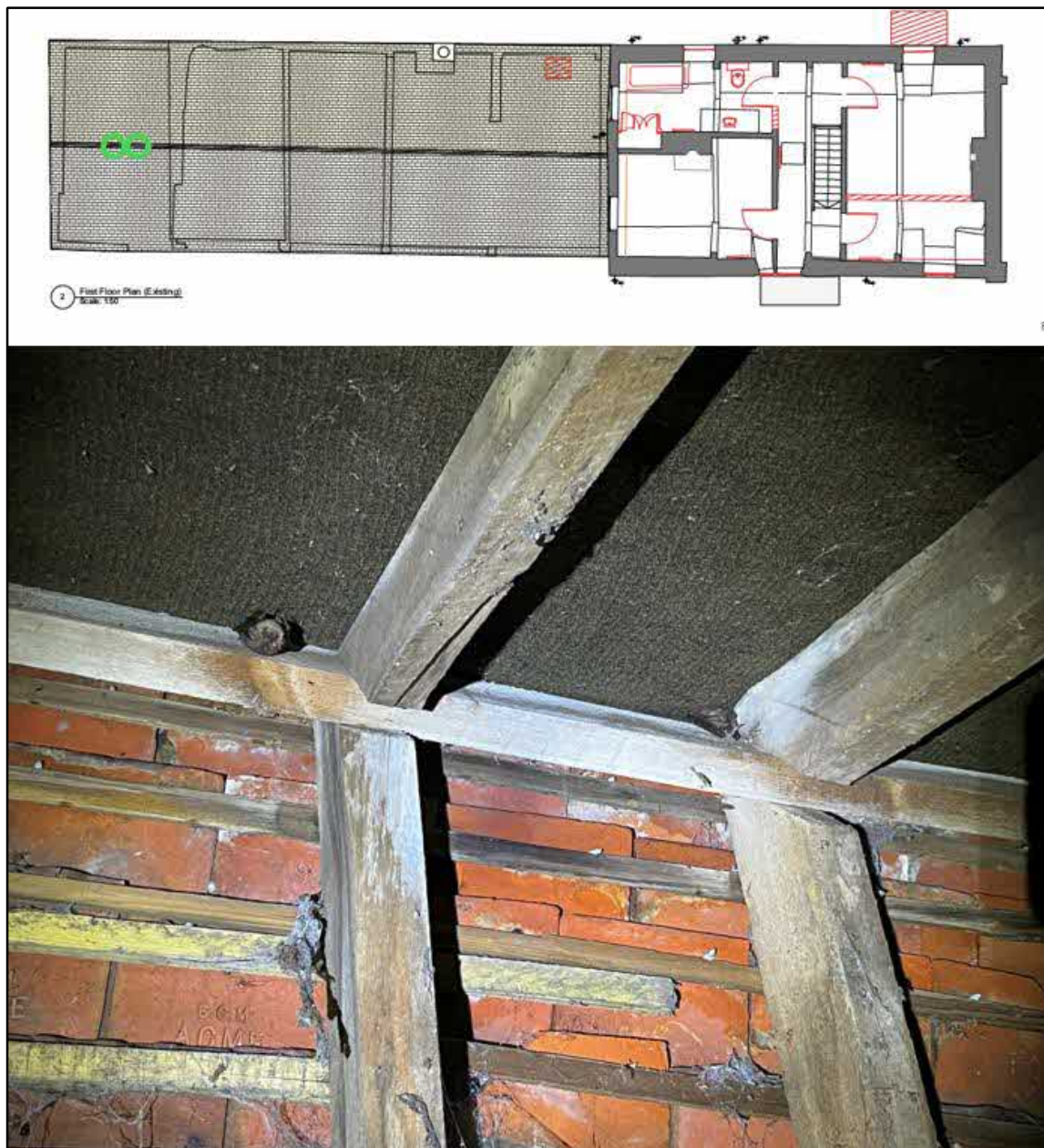
This activity ties in with historic surveys which noted low numbers of Common Pipistrelle (and unidentified Pipistrelle species) and Brown Long-eared bats roosting in the Main House.

3.1.5 Updated PRA / Hibernation check

During the walkover survey on the 26th of February 2024, two Brown Long-eared bats (one certainly hibernating) were found roosting within the extension to the western aspect of the cottage. Both were located at the ridge at the western end of the extension (*Figure 8*).

Around five droppings characteristic of pipistrelle bats were noted at the eastern gable wall of the Cottage.

Figure 8. 26/02/2024 Roosting Brown Long-eared bat locations

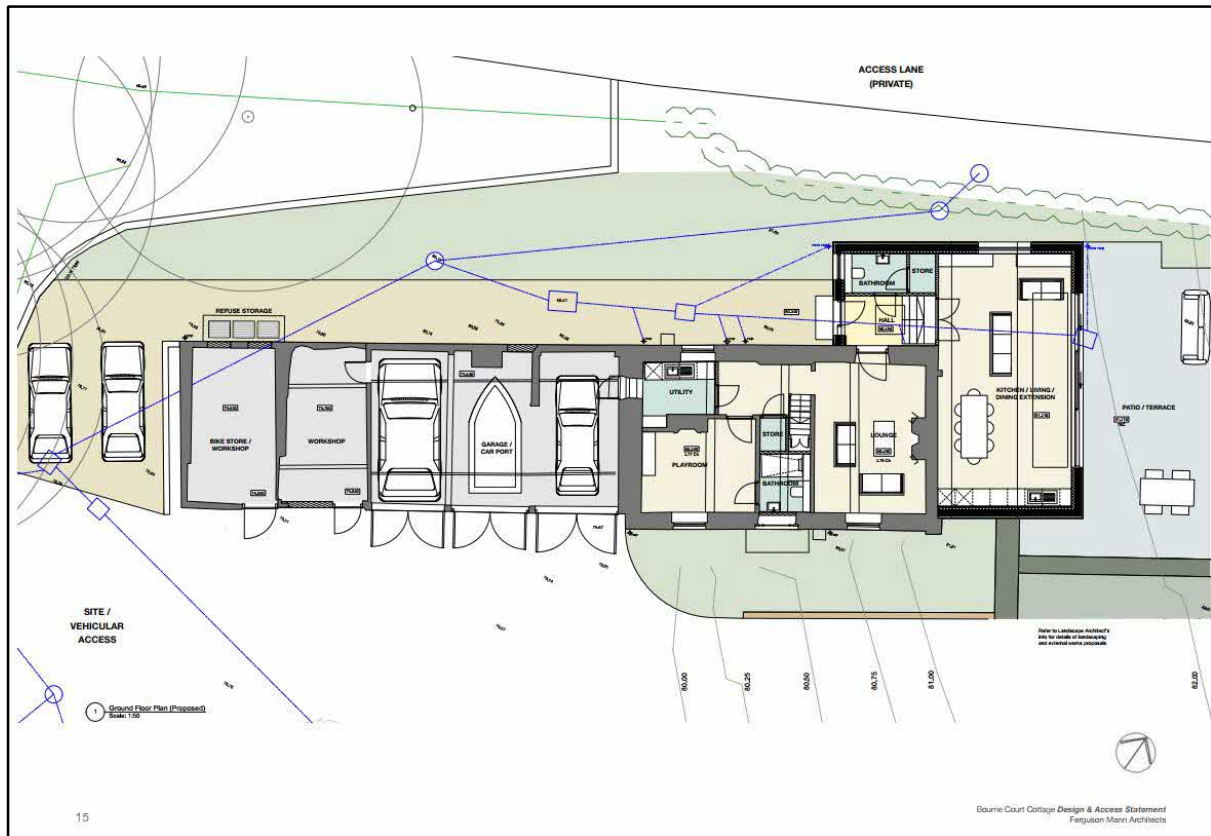


4 EVALUATION

4.1 Summary of Impacts

The proposals (*Figure 9*) are to construct an extension to the eastern aspect of the building wrapping around the eastern aspect and some of the northern aspect. The proposals include development of the extension into a garage and installation of solar panels on the southern aspect of the garages roof.

Figure 9. Proposed development plans



4.1.1 Designated Sites

The proposed development site is located within the North Wessex Downs Area of Outstanding Natural Beauty.

4.1.2 General

The proposals will affect all aforementioned confirmed bat roosts affecting three Common Pipistrelle individuals and two Brown Long-eared individuals.

The results of the PRA found two Brown Long-eared bats utilising the western extension as a hibernation roost. Bat Activity Surveys recorded individual Common Pipistrelle bats emerging from four roosting areas. Bat activity recorded around the site during these surveys included multiple species in small

numbers. As bats have been confirmed roosting within the buildings a protected species licence must be obtained from Natural England before any works to the building, that may impact bats, commence.

None of the existing habitats within the site are considered to be of conservation importance and their loss is not considered to be significant. Ground works will be restricted in areas adjacent to retained trees (dominated by amenity grassland with some ruderal vegetation) within the hedgerow and root protection zones as defined in BS5837:2012 will be adhered to.

4.2 Mitigation and Enhancement

4.2.1 Bats

The buildings were assessed as having confirmed bat roosts and as such activity surveys were recommended. Three surveys were completed in 2022 to update previous surveys undertaken by a different consultancy which confirmed that the buildings support at least three Common Pipistrelle (day roosts) and two Brown Long-eared bat (hibernation roost). During the updated PRA it was noted that the condition of the cottage had not changed and evidence of use of roosting bats tied in with the previous surveys ensuring that the survey effort is appropriate,

Reroofing the Cottage and outbuilding will destroy roosts at the roof tiles. Building against the eastern gable wall will remove roosting locations however the whole gable wall will not be covered by the extension and so roosting locations will be available following works in this location. Reroofing of the outbuilding will destroy the roosting location at the ridge.

The proposed demolition works can only be completed once a Bat Mitigation Licence has been issued by Natural England. The following works will be completed and will be detailed in the application for a Mitigation Licence:

Two general purpose crevice dwelling bat boxes (Schwegler 2F or similar) to be installed on mature trees around or near the site within the same land holding, as close to the buildings as possible. Along with the general purpose crevice dwelling bat boxes, a larger bat box, suitable for Brown Long-eared bats, such as the Almodovar Wooden Bat Box (or equivalent) will be added and will remain in perpetuity in order to provide roosting opportunities for Brown Long-eared bats.

A suitably qualified ecologist will deliver a toolbox talk to the on-site contractors which will detail the results of the bat surveys, outline the approach to the mitigation and what to do in the event of finding a bat.

On completion of the toolbox talk the ecologist will complete supervised hand strip of the features identified as supporting roosting bats. If a bat is found it will be caught, placed into a soft cloth bag and transported to one of the previously erected bat boxes. Once the ecologist has searched all of the features identified as supporting roosting bats the site-wide demolition will be completed without any further ecological supervision.

Should roosting features not be able to be accessed during the soft demolition features will be excluded by a suitably qualified ecologist.

In the unlikely event that a bat is found during unsupervised works, all works will stop, and an ecologist contacted to confirm how works are to proceed. Details of a local bat carer should be available on site so they can be contacted if a bat is injured during the works.

On completion of the final development enhancement features are to be incorporated into the new dwelling as below.

As part of the final development plans features suitable for roosting bats will be incorporated into the design of the new buildings. These features will include;

installation of bat boxes within the updated soffit boxes on the eastern gable end along with roosting locations remaining/reinstated at the gable end will ensure that bats can continue to roost in this location.

four lifted roof tiles will be in place on the southern roof elevation to allow bats access to the gap between tiles and the proposed 1F bitumen felt lining (BRM will not be used);

Three bat access location will be installed at the ridge of the outbuildings with access through the bitumen lining into retained open space. The void in the western outbuilding section will remain suitable for Brown Long-eared bat use throughout the year but importantly during hibernation.

4.2.2 Nesting Birds

No signs of nesting birds were noted during the surveys however to ensure no impacts to bird in the case of future nesting impacts to the building should take place outside of the active nesting bird period (March - August inclusive) or following checks by a suitably qualified ecologist.

In accordance with BS 42021 it is recommended a total of two integrated nest box be installed into the new buildings to provide opportunities for a range of declining urban bird species. Nesting boxes should have an entrance hole of 30mm x 60mm and will be installed on the northern elevation of the outbuildings so as to be adjacent to the nearest vegetation.

5 LEGAL PROTECTION

This section briefly describes the legal protection afforded to the protected species referred to in this report. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation but summarises the salient points.

5.1 Bats

All species of British bat are protected by *The Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst it occupies a bat roost.

Bats are also listed on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2017* under *Regulation 42*. This legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats in such a way as to be likely to (a) impair their ability to: (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or b), to affect significantly the local distribution or abundance of the species to which they belong; and
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present.

Where it is necessary to conduct an action that could result in an offence under the *Conservation of Habitats and Species Regulations 2017* it is possible to apply for a Protected Species Mitigation licence from Natural England (NE) or for the scheme to be registered on the Low Impact Class Licence.

5.2 Nesting Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the CRow Act.

The legislation makes it an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The protection was extended by the

CRoW Act. The legislation confers special penalties where the above-mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

disturb any such bird, whilst building its nest or it is in or near a nest containing dependant young; or

disturb the dependant young of such a bird.