White Hill Farm Barn, Pitton

Preliminary Roost Assessment
Ms Nicola Johnson

June 2022



Document Control

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It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to works.

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Executive Summary

Executive Summary

- In June 2022 Daniel Ahern Ecology Ltd were commissioned of Ms Johnson to undertake a Preliminary Roost Assessment (PRA), also known as a bat inspection survey, of White Hill Farm Barn, Pitton
- No Special Areas of Conservation (SAC) relating to Annex II bat species within 7.5km of the site or European Protected Species Licences (EPSL) within 2km were recorded.
- The PRA determined that the building had **NEGLIGIBLE bat roost potential** based on the low number of potential roost features recorded. No evidence of bats was recorded externally or internally.
- Following the PRA, it is recommended that there is no need for further bat activity surveys.
- A barn owl box was recorded inside the building. This was unoccupied at the time of survey. Prior to any demolition work a suitably qualified ecologist should complete an inspection of the barn owl box to confirm whether it is in use.

Introduction

1.1. Introduction

In June 2022 Daniel Ahern Ecology Ltd were commissioned by Ms Johnson to undertake a Preliminary Roost Assessment (PRA), also known as a bat inspection survey, of a steel frame barn at White Hill Farm Barn, Pitton.

1.2. Site Location and Description

The Steel Farm Barn, hereafter referred to as 'the Site', is situated on the outskirts of Pitton (NGR SU 21364 30940). An aerial photo view of the site can be seen in Figure 1 below.

Figure 1. Red line boundary for the Site.



1.3. Development Proposals

The proposals are:

- To obtain Class Q planning permission to convert the current building into a residential building.

1.4. Survey Objectives

The objectives of the bat inspection survey comprise the following:

- Assess the buildings within the survey area for the potential for bats to use them to roost.

1.5. Quality Assurance

All ecological surveys are led by Ecologists who are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) at the appropriate level. By joining the CIEEM staff sign up to a professional code of conduct.

Methodology

2.1. Preliminary Roost Assessment

An internal and external bat inspection was undertaken on 7th June 2022 by Peter Allen and Paula Llewellyn. The inspection followed methods described in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (third edition) (Collins; 2016).

2.2. Desk Study

A desk study was carried out with the aim of supplementing the field survey results by collating and reviewing existing ecological information relevant to the site and the local area.

Bat European Protected Species Licences (EPSL) records from within 2km of the site were obtained from the MAGIC website, in addition details of designated sites, within 7.5 km of the site, relating to Annex II bat species were also obtained from the same website.

2.3. External Inspection

The exterior walls and roof of the building were viewed from ground level and features that provide potential bat access points or roosting places were noted and referred to as potential roost features (prf). Features that were looked for include:

- cracks/holes in mortar;
- gaps between ridge tiles and ridge and roof tiles;
- gaps in soffit boxes;
- gaps under wooden cladding; and
- gaps around the eaves.

Areas where bat droppings may accumulate, such as on the ground, ledges, window sills and walls, were also inspected.

Any features that may potentially be used by bats were identified and any evidence of bat activity, as listed below, were noted.

2.4. Internal Inspection

The internal inspection comprised a thorough search of the roof void within the building, see Figure 2 below for a floor plan, for evidence indicative of past or current use by roosting bats. Direct evidence of bat presence may include:

- live bats or bat corpses;
- droppings;
- bat sounds;
- scratch marks;
- urine stains; and
- clean, cob-web free gaps around potential entrance points.

Potential access points and roosting sites were also noted.

In any roof voids, a systematic search for evidence of bat presence was undertaken, concentrating on roof beams, ceiling joists and exposed surfaces.

Any evidence was recorded.

2.5. Bat Roost Assessment

The findings of the internal and external surveys inform an assessment of the structure, classifying the bat roost potential it has. The different classifications are set out in Table 1 below.

Table 1: Bat Roost Assessment Classifications

Classification	Description
NEGLIGIBLE	Negligible habitat features on site likely to be used by roosting bats
LOW	A structure with one or more potential roost sites which could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter or protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats, (ie unlikely to be suitable for hibernation or maternity).
MODERATE	A structure with one or more potential roost sites which could be used by bats due to their size, shelter, protection, conditions and suitable surrounding habitat but unlikely to support a roost of high conservation status.
HIGH	A structure 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 suitable surrounding habitat.
CONFIRMED	Evidence of bats roosting in the building or structure is recorded, bats, their droppings or feeding remains.

2.6. Equipment

The following equipment was available to use during the survey:

- close-focusing binoculars;
- P7 Lenser torch;
- camera;
- Eazyview endoscope.

2.7. Limitations

The data provided by the online resources were not exhaustive. It is possible that bat species not included in the data search occur within the vicinity of the proposed development site.

The internal and external inspection survey provides a snapshot of conditions at the time of survey. Bats are mobile creatures that will move into and out of areas.

The details within this report will remain valid for a period of 12 months; beyond that date it is advised that a review of ecological conditions is undertaken.

Results

3.1. Preliminary Roost Assessment

3.2. Desk Study

1.1.1. Statutory Conservation Sites

Records of Special Areas of Conservation relevant to Annex II bat species within 7.5km of the Site are presented in Table 2 below.

Table 2: Statutory Designated Sites.

Name	Area (ha)	Designation	Description	Distance & direction from the Site
Statutory sites				

Name	Area (ha)	Designation	Description	Distance & direction from the Site
None	N/A	N/A	N/A	N/A

Key
SAC – Special Area of Conservation

1.1.2. Bat Species

Records of bat EPSL within 2km of the Site are presented in Table 3 below recorded within the last 30 years.

Table 3: Bat EPSL Records within 2km of the Site

EPSL Reference	Species named	Distance & direction from the Site
None	N/A	N/A

3.3. Bat Inspection Survey

The results of the building inspection are set out in Table 4, below.

Table 4: Bat inspection External & Internal Survey Results

Building	External description	Internal description
White Hill Farm barn	A structurally sound steel frame barn, with open stable area attached on the eastern side. The barn is primarily constructed of concrete blocks and corrugated steel sheets. The roof of the open hay store area was single pitch whilst the closed barn had a dual pitch roof. Both roofs were constructed of corrugated steel sheets with plastic skylights. In the main barn, a skylight was recoded as being missing, this was on the southern end of the roof. Gaps in the corrugated steel sheets gives access into the internal of the structure. No evidence of bats was recorded externally.	The internal space of the barn consisted of a single-story concrete floored room, which has been used for storage of machinery and hay bales. The structure measured approximately 28m x 10m and measured approximately 15m tall. There were large gaps in the apex of the gable ends of the barn, which let in a significant amount of light. The barn was also well lit via plastic skylights, some of which were missing or damaged. There was a barn owl box present in the south western corner of the building. No evidence of it being in use was recorded. No evidence of bats was recorded internally.

Results of the bat roost assessment are set out in Table 5 below.

Table 5: Bat Roost Potential for the Buildings Surveyed

Building	Bat Roost Potential	Reason	Recommendations
Building 1 - Pitton	**Negligible**	• No PRFS found internally or externally. • No evidence of bats recorded internally or externally.	No further Surveys needed

Legislation and Policy

4.1. Legislation

4.1.1. Bats

All species of bat found in the UK are listed under Schedule 5 of *The Wildlife and Countryside Act 1981* (as amended 2018) and are afforded protection under Section 9(1), Section 9(4)(b&c) and Section 9(5) of the Act. Under this legislation, a person is guilty of an offence if he intentionally or recklessly:

- Kills or injures any bat;
- Disturbs any bat while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructs access to any structure or place which any bat uses for shelter or protection.

Bats are afforded additional protection through their inclusion on Schedule 2 of *The Conservation of Species and Habitats Regulations 2017* (as amended). Under Part 3 of this legislation, a person is guilty of an offence if he:

- Deliberately captures, injures or kills a bat;
- Deliberately disturbs a bat; or
- Damages or destroys a bat breeding site or resting place.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young, migrate or hibernate. It also includes any disturbance likely to affect significantly the local distribution or abundance of the species. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as flight corridors and foraging areas.

4.1.2. Breeding Birds

Wild birds, their nests and eggs, are afforded protection under Section 1(1) of *The Wildlife and Countryside Act 1981* (as amended). Under this legislation, a person is guilty of an offence if he intentionally:

- Kills, injures or takes any wild bird;
- Takes, damages or destroys the nest of a wild bird included in Schedule ZA1;
- Takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- Takes or destroys an egg of any wild bird.

Discussion and Recommendations

5.1. Discussion

5.1.1. Desk based assessment results

The desk-based assessment returned no records for SAC relating to Annex II bats within 7.5km or records related to any EPSL within 2km of the site.

5.1.2. Survey results – Preliminary Roost Assessment

No evidence of bats was recorded internally or externally. The building had **NEGLIGIBLE** bat roost potential due to the absence of potential roost features.

Although the barn had gaps in the structure allowing access to the building, there were no PRF features which could be utilised internally for these bats. Furthermore, due to the nature and fabric of the construction, the barn would be thermodynamically unstable, therefore it will be unlikely to be used by bat species.

5.2. Recommendations

5.2.1. Survey recommendations

Based on the **NEGLIGIBLE** bat roost assessment of the building no further surveys are needed.

Prior to any demolition work a suitably qualified ecologist should complete an inspection of the barn owl box to confirm whether it is in use.

5.2.2. Further recommendations

Building Mitigation measures:

- If Demolition occurs, it should take place between late October and late February.

Habitat enhancement measures:

Recommendations for habitat enhancement should be added into project design, these include:

- Instillation of bat brick into future site development. This will allow access for crevice dwellers to use the structure.

An example of the bat brick can be seen in Figure 2 below.

Figure 2. Bat Brick



- A bee brick – installed on the southern side of the house as a height above 1.5m
- The barn owl box – state of use to be confirmed

The findings of this report are valid for 12 months from the issue.

References

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn.) The Bat Conservation Trust, London.

Photographs

Photo 1 – External view of barn including hay store



Photo 2 – Internal view facing north



Photo 3 – internal view facing south with gaps in gable end and skylight



Photo 4- Barn owl box in southwestern corner



Photo 5 – Southern end of barn missing skylight

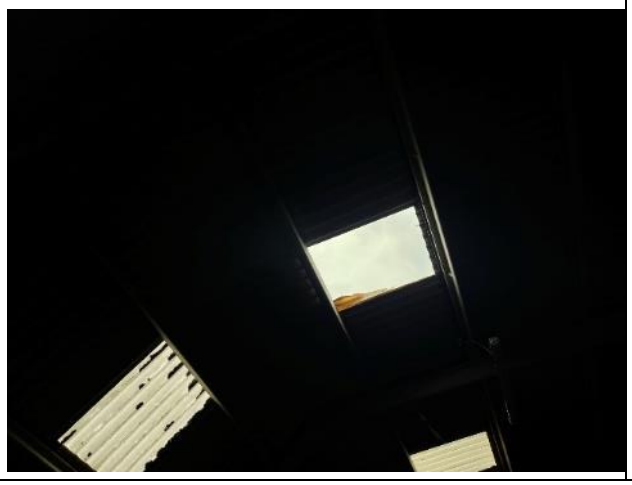


Photo 6 – External view of exposed stable area.

