Allied Ecology

Preliminary Bat Roost Assessment (PRA)

and Barn Owl Presence / Absence Survey

-

The Barn at Willow Farm

Fenn Lanes

Fenny Drayton

CV13 6BJ

-

April 2023

Site Details	The Barn at Willow Farm, Fenn Lanes, Fenny Drayton, CV13 6BJ
Client	Chris Hunt
Date of Issue	19/04/2023
Report Reference	23121 – Bat and Barn Owl Survey Report

Contents

Section 1 - Introduction 1

Section 2 - Ecological Background and Legislation 2

Section 3 - Methodology - Preliminary Roost Assessment 3

Section 4 - Results 8

Section 5 - Recommended Precautionary Mitigation and Safeguarding Measures 10

Section 6 - Conclusions 12

Plans

Plan 23121-PRA1 – Preliminary Bat Roost Assessment and Barn Owl Presence / Absence Survey Results

Photographs:

Photographs 1 – 6

1 Introduction

1.1. Background

1.1.1. Allied Ecology has been appointed to undertake a Preliminary Bat Roost Assessment (PRA) and Barn Owl Presence / Absence Survey for The Barn at Willow Farm, Fenn Lane, Fenny Drayton, CV13 6BJ (grid reference SP 36689 97705).

1.1.2. The site is located to the east of Fenny Drayton, Warwickshire and comprises a single modern agricultural barn. The site is located within a rural setting, and is bound by agricultural land to the north and east, and further agricultural buildings to the south and west, and immediately surrounded by existing hardstanding and amenity grassland used as part of the ongoing agricultural activity at the site.

1.2. Summary of Proposals

1.2.1. It is understood that planning permission may be sought for proposals to create a new residential dwelling, with associated landscaping works.

1.3. Basis of Reporting

1.3.1. This report documents the findings of the Preliminary Roost Assessment undertaken at the site comprising an internal and external visual inspection of all relevant accessible features, in order to establish the likely presence / absence status of roosting bats. This report sets out the likely effects of the proposals in respect of roosting bats and, where necessary, any requirements for further Phase 2 survey work, in line with relevant best practice guidance. In addition, an assessment of the potential for Barn Owl *Tyto alba* to be present within the building was also undertaken.

1.3.2. Where appropriate, proportionate recommendations for mitigation and / or compensation measures are also provided, in order to ensure that individual bats, local bat populations, and Barn Owl remain fully safeguarded under the proposals.

1.4. Surveyor and Author's Experience

1.4.1. The lead surveyor and author is Jonathan Byrd. Jonathan is a Chartered Ecologist (CEcol) and Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM), with over 15 years' experience within a consultancy setting. Jonathan has held a Natural England survey licence (Class 2 or equivalent) for bats since 2008 and has been actively involved in managing and undertaking professional survey and mitigation work for UK bats from this date. As a Registered Consultant for Natural England's Bat Mitigation Class Licence, and having been the Named Ecologist on numerous standard Natural England mitigation licences, the lead surveyor and author is a suitably qualified ecologist and is competent to assess the potential impacts of the proposals with regard to roosting bats and Barn Owl.

2 Ecological Background and Legislation

2.1. Ecological Background

Bats

2.1.1. A total of 17 species of bat are known to be present and breeding in Britain, all of which remain at risk from development as a result of disturbance and damage to roosting features, and the loss of suitable foraging / commuting habitat.

2.1.2. Species form localised populations and are distributed unevenly across Britain according to their specific habitat and climatic requirements, with common species more widely distributed than the uncommon / rare species. Bats are known to roost in both natural and artificial structures, including trees and buildings, and readily use a range of habitats for foraging and commuting.

2.1.3. Bats are well adapted for flight mobility and will typically emerge from their roosts between dusk and dawn to forage for prey, which consists exclusively of insects. To capture their prey, bats will emit short, high frequency bursts of sound, the process of which is known as 'echolocation'. From this, they are able to formulate an image of their surrounding environment and the precise locations of objects within it.

2.1.4. During the winter, bats will hibernate to reduce their metabolic activity / energy expenditure whilst prey is scarce. Suitable hibernation roosts will typically have high humidity levels, a stable low temperature and be free from predators. Bats are known to intermittently wake from hibernation, and sometimes even move between hibernation roosts, albeit will not typically do so fully until the beginning of the active season in April / May. Buildings and trees often provide suitable conditions to support hibernating bats.

2.1.5. During the summer, female bats will form maternity roosts within buildings and trees where they will rear their young. Females typically give birth to a single pup in any given year, which will be dependent upon the mother until they are able to take flight and forage for themselves. Once their young are independent, females will disperse to find a mate and to prepare for the upcoming hibernation season.

Barn Owl

2.1.6. Barn Owl remains at risk from development as a result of disturbance and damage to nesting features, and the loss of suitable foraging / commuting habitat.

2.1.7. Barn Owls are distributed throughout the majority of England, and largely rely on a diverse mix of high-quality grassland and arable land for hunting. Typically predating on a range of small mammal species, albeit are known to occasionally feed on birds and amphibians.

2.1.8. During the spring and summer, females can lay between 4-6 eggs in a clutch, with nesting locations ranging from suitably sized tree cavities, to agricultural buildings, dilapidated structures, and artificial nest boxes. On occasion, and dependent on a number of factors including availability of prey / nesting site suitability, more than one clutch may be laid in a single season (recognised as between March – August inclusive).

2.1.9. During the winter, Barn Owls will still need to successfully hunt in order to maintain their core temperature and fat reserves. As this typically coincides with a reduced prey availability, and harsher foraging conditions, Barn Owl mortality over winter is typically increased.

2.2. Legislation Summary

Bats

2.2.1. All British bats are protected under domestic (Wildlife and Countryside Act 1981, as amended) and international (Conservation of Habitats and Species Regulations 2017, as amended) legislation, and as such, they are classified as European Protected Species.

2.2.2. Under Regulation 39 of the Conservation of Habitats and Species Regulations 2017, as amended, it is a criminal offence to:

- Deliberately capture or kill a bat;
- Deliberately disturb a bat;
- Damage or destroy a breeding site or resting place of a bat; and
- Keep, transport, sell or exchange, or offer for sale or exchange a live or dead bat or any part of a bat.

2.2.3. Furthermore, under Schedule 5 the Wildlife and Countryside Act 1981, as amended, all bats are subject to the provisions of Section 9, which makes it an offence to:

- Intentionally kill, injure or take a bat;
- Possess or control any live or dead specimen or anything derived from a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat; and
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose.

2.2.4. In addition to the above legislation, a number of bats are classified as Section 41 Priority Species, and are therefore afforded a greater level of consideration within development under the Natural Environment and Rural Communities (NERC) Act 2006, representing a material consideration at planning.

Barn Owl (and other nesting birds)

2.2.5. In England all wild bird species, including their eggs and active nests receive legislative protection under the Wildlife and Countryside Act 1981, as amended.

2.2.6. Of relevance to development related activities, it is an offence to:

- intentionally kill, injure or take wild birds;
- intentionally take, damage or destroy a wild bird's nest while it's being used or built;
- intentionally take or destroy a wild bird's egg; and
- use prohibited methods to kill or take wild birds.

2.2.7. It is also an offence to:

- possess, control or transport live or dead wild birds, or parts of them, or their eggs;
- sell wild birds or put them on display for sale.

2.2.8. Furthermore, a number of bird species including Barn Owl, receive additional protection under Schedule 1, Part 1 the Wildlife and Countryside Act 1981, as amended, which also makes it an offence to intentionally or recklessly:

- disturb them while they're nesting, building a nest, in or near a nest that contains their young;
- disturb their dependent young.

3 Methodology

3.1. Desktop Study

3.1.1. A review of information published on the online Multi-Agency Geographic Information for the Countryside (MAGIC) was undertaken on 18th April 2023, to identify any Natural England bat or Barn Owl mitigation licences granted within 2km of the site.

3.1.2. In addition, the Hinckley and Bosworth Borough Council website was searched on 18th April 2023 to identify any current and recent planning applications within 500m of the site, which are likely to affect roosting bats or Barn Owl.

3.2. Visual Inspection Survey

Bats

3.2.1. In accordance with best practice guidance[1,2,3] and aided by the use of ladders, high-powered torches, and binoculars, all safely accessible external and internal areas of the building were subject to a detailed visual inspection survey on 14th April 2023, in order to search for evidence of roosting bats. Evidence may include but not be limited to bats themselves (including deceased), droppings / excreta, feeding / prey remains, possible fur staining, and the sound of bats within a roost.

3.2.2. External areas of building searched include, albeit were not limited to fascias / soffits, lead flashing, gaps around windows and doors, missing stonework and mortar, to search for features capable of supporting roosting bats, or features capable of facilitating bat access to internal areas of the structure. Internally, all accessible areas were searched (no roof void present).

3.2.3. Where bat droppings (or possible bat droppings) are identified, a sample is collected and submitted to a third-party laboratory for multi-variant polymerase DNA analysis. This approach enables the precise species of bat(s), if present, to be identified and ensures that relevant safeguarding, mitigation, and compensation strategies can be effectively prepared.

Barn Owl

3.2.4. Aided by the use of ladders, high-powered torches, and binoculars, all safely accessible external and internal areas of the building were subject to a detailed visual inspection survey on the 14th April 2023, in order to search for evidence of roosting and nesting Barn Owl. Evidence may include but not be limited to the presence of individual Barn Owls, faecal 'splashings', pellets, prey remains and feathers.

3.3. Assessment

Bats

3.3.1. Based on the findings of the visual inspection survey, the bat roosting potential category of a structure can be classified (see Table 3.1 below). In accordance with best practice guidance,

---

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

2 Surveys based on: English Nature (2004) '*Bat Mitigation Guidelines*' and Collins, J. (ed.) (2016) '*Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn).' Bat Conservation Trust

3 Stebbings, RE, Yalden DW and Herman, JS (2007). '*Which bat is it? A guide to bat identification in Great Britain and Ireland.*' The Mammal Society

further dusk emergence and / or dawn re-entry survey work may be required to determine the status of roosting bats within a structure.

Table 3.1. Summary of Bat Roosting Potential Categories and Further Survey Requirements.

Bat Roosting Potential Category	Typical Features / Evidence Present	Further Survey Requirements
Confirmed Roost	Evidence of roosting bats (as detailed above) is identified.	Roost Characterisation Survey – typically comprising a minimum of two - three (if required) dusk emergence / dawn re-entry surveys*.
High	One or more potential bat roost locations present, which could support a high conservation status roost, with suitable foraging / commuting habitats nearby.	Three dusk emergence / dawn re-entry surveys.
Moderate	One or more potential bat roost locations present, albeit unlikely to support a high conservation status roost, with suitable foraging / commuting habitats nearby.	Two dusk emergence / dawn re-entry surveys.
Low	One or more potential bat roost locations present, capable of supporting individual bats, albeit unlikely to be in regular use.	A single dusk emergence survey#.
Negligible	No features present that could support roosting bats.	No further survey work required.

*Dusk emergence and dawn re-entry survey work is undertaken during suitable weather conditions / temperatures, between May – August / September inclusive (for most bat roosting scenarios).
If sufficient areas of a structure have been inspected and no evidence found, then further surveys may not be appropriate.

Barn Owl

3.3.2. Based on the findings of the visual inspection survey, a structure can be classified according to the level of usage by Barn Owl (see Table 3.2 below).

Table 3.2. Summary of classification of structure according to Barn Owl usage.

Level of Barn Owl Usage	Typical Features / Evidence Present
Potential Nest Site (PNS)	Potential Nest Sites comprise trees and built structures which possess a hole, cavity or chamber of a suitable size and structure to provide a suitable Barn Owl nest site. Typical features of PNS's include, albeit are not restricted to: - Agricultural / industrial buildings with suitable access to Barn Owl, with a loft, roof void, blocked chimney, bale stack, ducting or artificial nest box; - Disused / derelict cottages / industrial buildings which possess an open joist, broken ceiling panel, disused chimney or artificial nest box; - Mature trees containing an entrance hole >80mm, backed by a large, dark cavity, and do not offer access to ground level predators; - Outdoor artificial nest boxes erected on poles, trees and buildings; - Waterway, rail or road bridges containing suitable cavities; and - Churches, and chimneys of intermittently-used dwellings.

Active Roost Site (ARS)	An Active Roost Site comprises a place at which breeding does not occur, but where a Barn Owl is seen or heard regularly or its current presence (last 12 months) can be recognised by field signs, such as: - Thick, chalky-white, streaky droppings (commonly referred to as 'splashings'); - Regurgitated pellets; and - Moulted feathers. According to the age and quantity of the field signs observed, it is possible to determine whether an ARS is one which is *occasionally-used* or *regularly-used*, and whether it is a *winter, spring, autumn* or *summer* roost. The field signs will also give an indication of whether the ARS is *recent* (between 12 and 36 months), or *historical* (3 years ago, or more).
Temporary Rest Site (TRS)	A Temporary Rest Site comprises a tree or structure which is used as a temporary night-time stopping place by Barn Owl. Indicative field signs of a TRS include small spots of thick, chalky cream-coloured droppings, which can be accompanied by an occasional pellet or body feather.
Occupied Breeding Site (OBS)	An Occupied Breeding Site is a place where breeding is taking place or has done so in the recent past, and can be identified by the presence of the following field signs: - Adult Barn Owls; - Moulted feathers; - Pellets; - Eggs / egg shells; and - Chicks or down. Due to the nesting behaviour of Barn Owl, and lack of obvious field signs at ground level, the presence of an OBS can only confidently be verified by the obvious presence of a juvenile down (or body hair of a juvenile down), or by inspecting the contents of the cavity / feature for the field signs listed above.

3.4. Survey Constraints

3.4.1. The survey work was undertaken at a suitable time of year, under ideal conditions, as such no overriding constraints to the assessment were encountered.

4 Results

4.1. Pre-existing Records

4.1.1. A review of the MAGIC database on identified no Natural England bat or Barn Owl mitigation licences having been granted within 2km of the site.

4.1.2. Information obtained from Hinckley and Bosworth Borough Council's website did not identify the presence of any planning applications within 500m of the site, that are known to impact roosting bats or nesting Barn Owl.

4.2. Bats - Descriptions and Potential Roosting Features

4.2.1. A single building is present within the site, referred to as building B1 Plan 23121-PRA1, and as shown in photographs provided at the end of this report.

4.2.2. **Building B1**. A two-storey modern agricultural barn which is divided into three distinct sections, referred to as B1a-B1c on Plan 23121-PRA1. The central section, **B1a**, is largely steel frame and modern timber beam construction with corrugated metal walls and corrugated concrete (likely asbestos) roof, with skylights. B1a is in active use for storage and as a lambing shed and was found to be light and draughty with negligible roosting opportunities for bats. No enclosed roof void or basements are present.

4.2.3. The eastern section, **B1b**, is largely steel frame and modern timber beam construction with 'hit and miss' vertical wooden cladding and supports a corrugated concrete (likely asbestos) roof, with skylights. The barn is open sided on its eastern aspect and was found to be light and draughty with negligible roosting opportunities for bats. No enclosed roof void or basements are present.

4.2.4. The western section, **B1c**, is largely steel frame and modern timber beam construction with 'hit and miss' vertical wooden cladding and supports a corrugated concrete (likely asbestos) roof, with skylights. The barn is open sided on its northern aspect and was found to be light and draughty with negligible roosting opportunities for bats. No enclosed roof void or basements are present.

4.2.5. **No evidence of historic or current roosting bat activity was recorded associated with the building.**

4.2.6. No evidence of nesting birds was recorded during the survey, albeit it would be possible for species such as Feral Pigeon *Columba livia domesticus* to access.

4.3. Barn Owl - Descriptions and Potential Nesting Features

4.3.1. Access to the building, largely sections B1b and B1c for Barn Owl is readily available, due to their open sided aspects. While perching / roosting opportunities are present, given the construction of the building no suitable nesting opportunities are present. **No evidence of historic or current nesting Barn Owl activity, or Barn Owl perching / roosting, was recorded during the survey work undertaken.**

4.4. Summary and Evaluation

Bats

4.4.1. No suitable potential bat roosting features were identified associated with the building, with no evidence of roosting bats identified during the survey. Given the building's construction type, condition, and high levels of ongoing disturbance, it is assessed to be unsuitable to support an active bat roost and as such, the building is assessed to provide **negligible potential to support roosting bats**. Under relevant best practice guidance, no further survey work or assessment is considered necessary or proportionate to inform the planning application and / or future works.

4.4.2. Nonetheless, where proposed development is unlikely to result in an offence to European Protected Species (EPS), and where licensing is not required, reasonable precautionary measures should be implemented to minimise the risk to such species in the unlikely event they should be present during the course of development activities. Accordingly, and in line with the guidance set out by Natural England[4], a number of highly precautionary mitigation measures to fully safeguard bats are set out below in Section 5.

Barn Owl

4.4.3. No suitable Barn Owl nesting habitats are present within the site, with Barn Owl assessed to also be likely absent from perching / roosting and nesting. Recommendations are set out below at Section 5 in order to ensure Barn Owl remain fully safeguarded during future works.

[4] Natural England (2013) *'European Protected Species: Mitigation Licensing - How to get a licence (WML-G12)'*

5 Recommended Precautionary Mitigation, Safeguarding, and Enhancement Measures

5.1 Based on the results of the specific survey work undertaken at the site, it is recommended that the following measures are implemented. In accordance with best practice guidance (BS 42020:2013), where required, detailed mitigation / safeguarding strategies and / or method statements can be secured through appropriately worded planning conditions.

5.2 **Bats – Update Survey.** Should a considerable amount of time elapse (>2 years) between the survey work detailed in this report and the proposed works commencing, it is recommended that a further visual inspection survey of the building be undertaken prior to commencement. Such survey work would aim to establish the current status of bats at the site, and to identify any change in the potential for the building to support roosting bats.

5.3 **Bats – Unexpected Discovery of Bats during Works.** In the highly unlikely event that bats are discovered or encountered during the works, all works will cease immediately and Allied Ecology will be contacted for further advice. The necessary course of action would likely require Allied Ecology to visit the site and assess the need to obtain a relevant Natural England mitigation licence, in order for the remaining works to proceed lawfully. Works will only recommence once a Natural England mitigation licence is in place, or confirmation is received that no bats / active bat roosts would be impacted by continuing.

5.4 **Bat – Artificial Roost Boxes**. It is recommended that new bat roosting opportunities be incorporated within any future development proposals. While the detail of such measures, including location and number of features can be secured via a suitably worded planning condition, it is recommended that a single artificial bat box (such as Schwegler 1FF / 2FN, or similar) be installed on a suitable tree within proximity of the site, within the landowner's control, or an integrated roost feature could be incorporated into the fabric of the proposals.

5.5 **Barn Owl – Update Survey**. Should a considerable amount of time elapse (>2 years) between the survey work detailed in this report and the proposed works re-commencing, it is recommended that a further visual inspection survey of the building be undertaken prior to the commencement. Such survey work would aim to establish the current status of Barn Owl at the site, and to identify any change in the potential for the building to support nesting Barn Owl.

5.6 **Barn Owl – Unexpected Discovery of Barn Owl during Works.** In the highly unlikely event that Barn Owl are discovered or encountered during the works, all works will cease immediately and Allied Ecology will be contacted for further advice, regardless of the time of year. Works will only recommence once confirmation is received that no active Barn Owl nests are present or likely to be impacted by continuing.

5.7 **Barn Owl – Artificial Nest Box**. It is recommended that a single Barn Owl nest box be incorporated within any future development proposals. While the detail of such a measure, including location and specification of the feature can be secured via a suitably worded planning condition, it is recommended that one Barn Owl nest box be installed on a suitable tree or agricultural building within proximity of the site, within the landowner's control.

5.8 **Nesting Birds (including Barn Owl) – General Safeguards.** Habitats capable of supporting nesting birds, including the building, should not be subject to damaging / disturbing works

during the recognised nesting bird season (March – August inclusive). Where this is not practicable, any habitats capable of supporting nesting birds, including the building, should only be subject to works following a Nesting Bird Survey. This would aim to establish whether any active bird nests are present and, where appropriate, instate an appropriate buffer to the proposed works. Such a buffer should remain in place until the chicks have fledged and the nest becomes inactive. Such surveys must be carried out within three days of clearance works commencing.

5.9 **Other Bird Boxes**. It is recommended that new bird nesting opportunities be incorporated within any future development proposals. While the detail of such measures, including location and number of features can be secured via a suitably worded planning condition, it is recommended that a single artificial bird box (such as Schwegler 1B / 2M, or similar) be installed on a suitable tree in proximity of the site, within the landowner's control, or an integrated nest feature could be incorporated into the fabric of the proposals.

6 Conclusions

6.1 Allied Ecology has undertaken a Preliminary Bat Roost Assessment (PRA) and Barn Owl Presence / Absence Survey, comprising an internal and external visual inspection of the on-site agricultural barn, in order to establish its suitability for these species / groups and to inform future proposals.

6.2 No evidence of roosting bats was recorded within any spaces / features of the on-site building, which is assessed to provide **negligible potential to support a bat roost(s)**.

6.3 No nesting or potential Barn Owl nest sites, or perching / roosting behaviour, was identified during the survey work undertaken.

6.4 Proportionate measures are detailed within this report, in order to safeguard bats and Barn Owls in the highly unlikely event that they are discovered during the works. As such, subject to implementing the recommended safeguards, including those for nesting birds, it is anticipated that the proposals will not result in any adverse impacts on bats, Barn Owl, or other protected faunal species.

Plan 23121-PRA1

Preliminary Roost Assessment and

Barn Owl Presence / Absence Survey Results

Key:

Survey Area

Building with 'Negligible' Bat Roosting Potential

* No evidence of bats was recorded within the building, with all minor accessible features able to be inspected by torchlight and / or endoscopic inspection.

No evidence of Barn Owl activity, or Barn Owl perching / roosting, was recorded within the building, with all internal and external areas able to be inspected.

The Barn at Willow Farm, Fenn Lanes, Fenny Drayton, CV13 6BJ

Preliminary Bat Roost Assessment and Barn Owl Presence / Absence Survey Results

23121-PRA1

April 2023

Allied Ecology

Allied Ecology Limited
T: 07341 396984
E: info@alliedecology.co.uk
W: www.alliedecology.co.uk

C:\Users\Sophie\Documents\PROJECTS\23121 - Willow Farm, Fenn Lanes, Fenny Drayton, CV13 6BJ\Graphics\23121 AE.qgz

Based upon the Ordnance Survey map with permission of the Controller of Her Majesty's Stationery Office, © Crown Copyright.

Photographs

Photo 1. Section B1b – external, eastern elevation.

Photo 2. Section B1a – external, northern elevation.

Photo 3. Section B1c – northern elevation.

Photo 4. Section B1a – internal, machinery storage.

Photo 5. Section B1b – internal.

Photo 6. Section B1a – internal, lambing area.

Allied Ecology

Allied Ecology Ltd
52 Church Street
Market Deeping
Lincolnshire
PE6 8AL

T: 07341 396948

E: info@alliedecology.co.uk

W: www.alliedecology.co.uk