

Big Tree Farm, Dolly Lane, Buxworth,
Derbyshire

Daytime Bat Survey
2024



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Client Rachel Moore

Project Title Big Tree Farm, Dolly Lane, Buxworth

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Executive Summary

Development Details

The client is proposing the residential redevelopment of a barn at Big Tree Farm, Dolly Lane, Buxworth, hereafter referred to as the 'site'.

This report describes the ecological features of the site and its surroundings and assesses the potential impacts of the development on the ecological interest. Recommendations are provided so that the development is compliant with biodiversity policy and legislation.

Ecological Interest

No evidence of a bat roost was found and the barn was assessed using previous survey work, which returned a nil result. Evidence of nesting birds was found.

Outcomes

Works should be timed to avoid the nesting period (March to August) or a nesting bird survey should be undertaken no more than 48 hours prior to works.



1. Introduction

1.1 Project Brief

- 1.1.1 Rachel Hacking Ecology Limited was commissioned in 2024 by Rachel Moore to carry out a Daytime Bat survey of a barn at Big Tree Farm, Dolly Lane, Buxworth, hereafter referred to as the 'site'. The site is located at O.S. grid reference: SK 01647 83370 (see Figure 1).

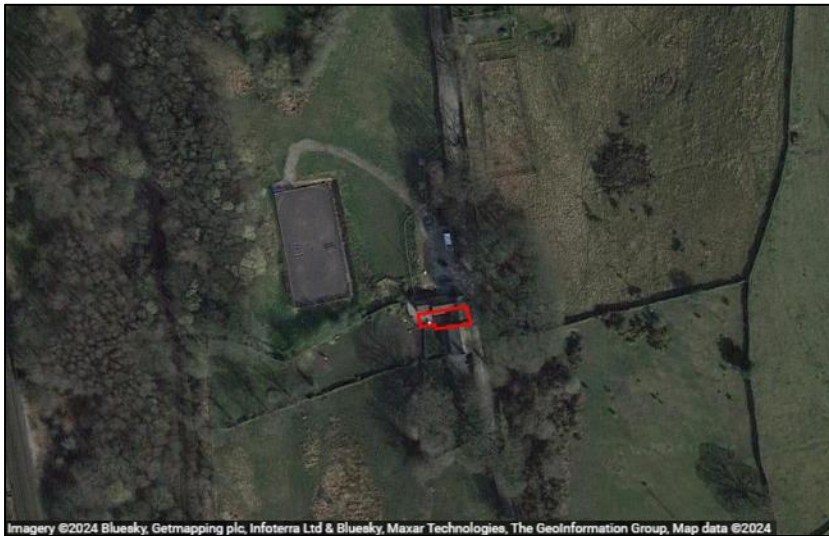


Figure 1. Map showing the location of the site

Description of Development

- 1.1.2 The site will be the subject of a planning application for the conversion of the barn into a dwellinghouse.

Relevant Planning History

- 1.1.3 A Daytime Bat Survey and Bat Emergence Surveys were carried out Rachel Hacking Ecology in 2021 as part of a previous planning application with High Peak Borough Council for the change of use of the barn from agricultural to residential (planning reference: DET/2021/0001). No bats were recorded emerging from the property during the surveys. The planning permission requires an extension of time and as such is currently the subject of a Prior Notification application (reference: DET/2024/0003). Given that the previous bat surveys are now considered out of date, an updated appraisal of the barn for bats is required.

1.2 Scope of Work

- 1.2.1 The Client commissioned Rachel Hacking Ecology to carry out an external and internal bat assessment of the building on the site.

1.3 Aims of the Survey

- 1.3.1 The aims of the survey were to assess the potential of the site to support roosting bats and identify the requirement for any further detailed surveys, taking into account previous survey results.



2. Methods

2.1 Daytime Bat Survey

- 2.1.1 The exterior of the barn was surveyed from the ground using binoculars and a high-powered torch. Features offering potential access to roosting bats were recorded. Such features may include suitable gaps in roof coverings, gaps behind external cladding/facia and gaps in masonry.
- 2.1.2 Evidence indicating the presence of roosting bats was also searched for. This may include bat droppings on walls, windows or on the ground below roost entrances or staining from fur oil around roost entry points.
- 2.1.3 The interior of the site, including the roof void, was surveyed to identify any evidence indicating use by roosting bats. Such evidence may include bat droppings, feeding remains, urine splashes, live or dead bats and staining from fur oil on timbers.

2.2 Assessment Criteria

- 2.2.1 Interpretation of survey findings and assessment of roosting potential was undertaken using professional judgement and criteria described in published guidance^{1,2}.

2.3 Site Visit Information

Survey Details

- 2.3.1 The survey was undertaken by Megan Johnson (Junior Ecologist) and Samuel Adshead (Junior Ecologist) on 6th February 2024. Both surveyors have professional experience in undertaking daytime bats surveys.

Site Conditions

- 2.3.2 The weather at the time of the survey was overcast. The site conditions were appropriate for a full assessment to be undertaken.

¹ Collins, J. (Ed.) (2023) *Bat Surveys for Professional Ecologists-good practice guidelines*. 4th edn. The Bat Conservation Trust, London.

² Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield..

2.4 Mitigation Hierarchy

2.4.1 Mitigation measures should be embedded within the masterplan design and planning application process. This process from proposal to implementation needs to consider the 'mitigation hierarchy' of avoid, reduce, compensate, and enhance:

- Aim to avoid negative effects through the design process.
- Mitigate if negative effects cannot be avoided.
- Use compensation measures to offset residual impacts.
- Identify and implement opportunities to enhance biodiversity.



3. Results

3.1 Survey Constraints

- 3.1.1 Field survey results are valid for a limited duration and no investigation can provide a complete description and characterisation of a site. The composition of habitats and species can change depending on environmental variables and the mobility of species, so the results of a study become less reliable over time. In some cases, surveys that are 3 years old may be acceptable for a project assuming that habitats have not significantly changed in the intervening period, but for protected species it is likely that survey data will need to be no more than 18 months old.
- 3.1.2 The barn was fully accessible and no survey constraints exist.

3.2 Habitat Appraisal

- 3.2.1 The site comprises a barn which is partially in use as a stable and is attached to a two-storey dwelling to the south and an extension to the west. The surrounding landscape comprises agricultural land with belts of trees. Scattered agricultural buildings lie within the wider landscape. A railway track runs 140m west of the site and the River Goyt is located 350m west from the site. The surrounding habitats offer suitable bat foraging and commuting habitat.

3.3 External Survey

- 3.3.1 The barn is constructed of stonework with a pitched slate tiled roof (see Photographs 1 and 2).



Photograph 1 showing north facing elevation of the barn



Photograph 1 showing south facing elevation of the barn

- 3.3.2 The external stonework is intact and appears to be in generally good condition and door and window frames are well sealed to the stonework. There are several vents across the building. These provide potential access points for bats and birds (see Photograph 3).



Photograph 3 showing vents on the west facing elevation

- 3.3.3 The roof is pitched and intact with slate tiles which appear to be in generally good condition (see Photograph 4). A few slipped tiles are present. Gaps beneath tiles create potential roosting features for crevice dwelling bats (see Photograph 5).



Photograph 4 showing a section of the roof



Photograph 5 showing a section of the roof

3.4 Internal Survey

- 3.4.1 The interior of the barn is intact and comprises three sections, all of which are in use as a stable, storage room and kitchen. The kitchen comprises a well finished room with windows that allow natural light into the space (see Photograph 6). The upper level of the kitchen is included within the stable section of the barn.



Photograph 6 showing the kitchen

- 3.4.2 The section of the barn that is in use as a stable is open to the underside of the roof (see Photograph 7). The interior of the barn is heavily cobwebbed and dusty. The wall vents create a draught within the building and the interior is well-lit.



Photograph 7 showing the interior of the stable section of the barn

- 3.4.3 The roof is unlined exposing the underside of the slate tiles (see Photograph 8). Some gaps are present where daylight is visible between roof tiles (see Photograph 9).



Photograph 8 showing the underside of the roof of the barn



Photograph 9 showing a gap in the tiles

- 3.4.4 Occasional gaps are present in masonry around windows, however these gaps are heavily cobwebbed (see Photograph 10).



Photograph 10 showing a gap in the lintel

- 3.4.5 Deep cracks where mortar is missing between stonework and cavities exist within the stonework throughout the interior of the building and cracks are present within the original timbers such as gaps in mortice joints. These features are heavily cobwebbed (see Photographs 11 and 12).



Photograph 11 showing gaps in the timber



Photograph 12 showing a gap in the wall

- 3.4.6 The section of the barn used for storage appears to be well sealed and also includes a toilet. There is no connectivity between the stable section of the barn and the storage section (see Photographs 13 and 14). The storage space is open to the underside of the roof which is lined and appears to be in good condition with no gapping or tears within the membrane lining. The timber beams appear to be in good condition with no gaps or cavities for bats to exploit.



Photograph 13 showing an interior room



Photograph 14 showing the underside of the roof in the storage section of the barn

- 3.4.7 No evidence of bat activity was found within any section of the barn during the survey. Old disused bird nests were found within the stable section of the barn.

4. Assessment

4.1 Interpretation of Results

- 4.1.1 The barn remains in the same condition as in 2021. No evidence of bat activity was found, which is the same result as in 2021. Whilst the barn does support gaps in stonework and timbers, these are heavily cobwebbed. The interior is well-lit with mostly unlined roofs and no voids. Whilst the barn is located in a rural area, given the previous survey effort recorded no bats within the barn (both a daytime inspection and a dusk emergence survey), and the barn remains in the same condition, it is considered reasonably unlikely that a bat roost currently exists within the barn. Further survey effort is considered to be disproportionate. However, mitigation is recommended (see Section 5) and this follows the same mitigation that was imposed as a planning condition during the previous planning application.
- 4.1.2 The site is likely to be used by various species of bird for nesting. In the absence of mitigation (see Section 5), nesting birds could be impacted upon should they be present when work starts.



5. Recommendations

5.1 Further Surveys

- 5.1.1 Impacts to nesting birds can be avoided by timing construction to avoid the nesting season (March to August inclusive). If this is not possible a survey for nesting birds should be undertaken by a suitably qualified ecologist no more than 48 hours in advance of works. Any active nests would need to be protected by a suitable buffer until nesting is complete.

5.2 Mitigation Measures

- 5.2.1 If a bat or evidence of a bat roost (e.g. droppings) are found at any time during the development, work must stop and a suitably experienced and licensed ecologist should be contacted for advice. Work may need to halt until further survey work has been undertaken and/or and a bat mitigation licence has been granted, prior to the commencement of works.
- 5.2.2 Bat roosting features should be included within the development, such as Woodcrete Bat Boxes erected onto south or west facing walls or mature trees.
- 5.2.3 Bird nesting features should be included within the development to maintain nesting opportunities for species such as Swallow. These should be situated in sheltered areas on north-east to north-west elevations.

General Precautions

- 5.2.4 This report is considered to be valid for two years. After this, a suitably qualified ecologist should be consulted to assess its validity. An assessment update may be required.



Appendix 1: Planning Policy & Legislation

National Policy

The National Planning Policy Framework (NPPF 2023) describes the Government's planning policy for England and how it should be applied. Within this framework, the requirements in relation to biodiversity are included within several policies. The two most relevant to individual planning decisions are Paragraphs 180 and 180, shown below:

- 180. Planning policies and decisions should contribute to and enhance the natural and local environment by:
 - a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- 186. 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;
 - b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments),



should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Legislation

All bat species are protected under the Conservation of Habitats and Species Regulations 2019 (Amendment) (EU Exit), which make it an offence to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place of a bat.

The Wildlife & Countryside Act 1981 (as amended) contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

Proposed development works that are likely to disturb or destroy bats or their roosts will need to obtain a licence from the relevant Statutory Nature Conservation Organisation (e.g., Natural England) prior to work commencing.

