



# **West Winch Housing Access Road**

# **Environmental Statement Chapter 8: Annex 8.6: Barn Owl Survey Report**

Author: WSP

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## Contents

1	Introduction .....	3
1.1	Methodology .....	3
1.2	Results .....	6
1.3	References .....	10

## Tables

Table 1-1	– Trees field surveys summary results .....	7
Table 1-2	– Buildings stage 2 field survey summary results.....	8



# 1 Introduction

## 1.1 Methodology

### Approach and Study Areas

1.1.1 The overall approach of the survey was developed with regard for best practice guidance set out in Shawyer (2012), comprising a desk study and field survey. The field Survey Area comprised a zone extending 500m from the (previous) Scheme Boundary.

### Field Survey

#### Overview Of Approach

1.1.2 The field surveys took the following approach:

- Stage 1 – desk scoping to record habitat features which may support Barn Owl.
- Stage 2 – an investigation of the features identified during Stage 1 to record Potential Nest Sites, Active Roost Sites, and Temporary Rest Sites, with follow-up nest verification surveys to identify breeding activity.

#### Stage 1 – Desk Scoping

1.1.3 This stage used a combination of aerial photography, Ordnance Survey maps and Phase 1 Habitat Survey data were examined to identify suitable Barn Owl foraging habitat (primarily rough unmanaged grassland, but also arable fields with large grass margins, meadows, and habitat corridors), and trees or buildings which could be used for roosting and nesting Barn Owls.

1.1.4 Potential nesting and roosting features include mature trees and buildings such as barns, farm buildings, structures sheltering bale stacks and old churches. Where knowledge was available about mature trees with cavities that could be used by Barn Owls these were identified and catalogued, as such trees are used by nesting and roosting Barn Owls. Known Barn Owl nest box locations were also identified and recorded.



- 1.1.5 Stage 1 of this assessment resulted in mapped areas of potential nest or roost locations, which were later surveyed during Stage 2.

### **Stage 2 - Field Survey**

- 1.1.6 The field surveys covered potential nesting features identified during Stage 1 desk scoping. The surveys were undertaken in August 2021 by experienced WSP ecologists and led by a licenced Barn Owl ecologist. Field surveys identified Potential Nest Sites, Active Roost Sites, and Temporary Rest Sites, the locations of which were mapped and their descriptions recorded.
- 1.1.7 Mature trees in open fields, hedgerows and woodland edges, that might support Barn Owls were inspected externally from the ground. Trees of sufficient age and girth to contain a cavity, along with trees that showed signs of damage or decay from wind or lightning strike were recorded. During the survey trees with holes of a sufficient size to allow access to a Barn Owl (minimum 70 millimetres diameter hole), were identified and recorded. Agricultural buildings, bale stacks and other structures suitable for Barn Owl roosting or nesting were recorded.
- 1.1.8 Buildings and trees were inspected closely from the ground to assess if there were suitable cavities to enable a Barn Owl to enter, and the ground was searched for evidence of Barn Owl, in particular for Barn Owl pellets or droppings. The locations of the buildings and structures with cavities large enough for Barn Owls to enter were recorded.
- 1.1.9 Where access permitted and was safe to do so, trees and buildings with potential to support nesting Barn Owl were internally inspected to confirm if structures were used for breeding (Observed Breeding Sites), had characteristics that could potentially support breeding (Potential Nest Site) or were instead used for resting/roosting (Temporary Rest Site/Active Roost Site). Structures were first inspected closely from the ground to identify and record all evidence of Barn Owl. Elevated internal inspections of structures were then undertaken using a ladder.



1.1.10 Cavities within trees and suitable structures (such as ledges) within buildings were accessed using a ladder and inspected for evidence of Barn Owls with the aid of a torch, mirror and endoscope. This inspection enabled the surveyor to determine whether the cavity was large enough to accommodate an adult Barn Owl to search for Barn Owl field signs indicating current or past use as a nest or roost site.

1.1.11 Field signs include splashing (droppings), pellets, and moulted feathers. Searches were made for evidence of breeding including the presence of Barn Owl eggs, egg shells, chicks, chick down and nest material (which for Barn Owls comprises a layer of shredded pellets).

#### Assumptions And Limitations

1.1.12 Cavities within some mature trees could not be fully inspected due to safety or lack of sufficient access to the cavity. Potential Nest Sites which could not be fully inspected due to safety or access remained recorded as Potential Nest Sites as presence/absence of Barn Owl nesting could not be confirmed. Thorough inspections for fresh field signs and a consideration of connectivity were undertaken in these instances to reduce the potentially significant impact of this limitation.

1.1.13 Densely wooded areas are not considered suitable breeding habitats for Barn Owl (Barn Owl Trust, 2012), and therefore woodland within the Field Survey Area was scoped out of this assessment once visually confirmed to be unsuitable habitat for Barn Owl. Individual trees in dense woodland were not inspected.

1.1.14 Due to land access restrictions, it was not possible to survey and internally inspect some buildings identified as potentially suitable for Barn Owl nesting. In these cases, these buildings have been classified as Potential Nest Sites.

1.1.15 Access restrictions resulted in sections of the Field Survey Area being inaccessible, and as a result there may be suitable Barn Owl nest/roost sites that have not been identified from surveys undertaken.



## 1.2 Results

### Stage 1 – Desk Scoping

- 1.2.1 The Field Survey Area comprises large areas of arable land, as well as woodland and grassland. Stage 1 identified land containing potentially suitable Barn Owl foraging habitat and areas of trees and buildings potentially suitable for roosting and nesting. These areas were mapped and used to support the further Stage 2 surveys.

### Stage 2 - Field Surveys

#### **Identification of roosting or nesting sites**

- 1.2.2 The Stage 2 surveys confirmed the presence of Barn Owls within the Field Survey Area. Tables 1 and 2 provide a summary of the results of areas surveyed during Stage 2.
- 1.2.3 The results of the Barn Owl surveys are also shown in Figure 1, Appendix A (this has been updated with the latest Scheme Boundary (October 2023)).

**Table 1-1 – Trees field surveys summary results**

Tree Number	X	Y	Feature	Access?	Barn Owl Evidence?	Barn Owl Field Sign	Barn Owl Site
1	563561	315508	Tree Mature oak with cavity	Partial	No evidence, but not fully accessed.	None	Potential Nest Site
2	564055	316902	Tree Mature oak with lots of ivy	None Unsafe to climb	No evidence, but not accessed	None	Potential Nest Site
3	564186	564186	Tree Mature oak tree with cavities on edge of road	None	No	None	Potential Nest Site
3b	564209	317169	Tree Mature oak tree with cavities on edge of road	Full	No	None	None, unsuitable
4	563495	317799	Tree Mature oak with cavity	Partial	No evidence, but not fully accessed.	None	Potential Nest Site
5	563502	317811	Tree Mature field maple with cavity	Full	No evidence, unsuitable	None	None, unsuitable
6	564078	316900	Tree Mature tree with lots of ivy	None Unsafe to climb	No evidence, but not accessed	None	Potential Nest Site
7	563268	315861	Tree Semi-mature sycamore with large rot hole cavity	None Observed on adjacent land parcel	No evidence, but not accessed.	None	Potential Nest Site

**Table 1-2 – Buildings stage 2 field survey summary results**

Building Number	X	Y	Feature	Access?	Barn Owl Evidence?	Barn Owl Field Sign	Barn Owl Site
B1	563726	317666	Old barn	Partial Full access to building but not to internal Barn Owl box	Yes	9+ pellets of varying ages Barn Owl droppings (white splashing) beneath beams 2 Barn Owl eggshells beneath box	Observed Breeding Site / historic nest site
B2	563713	317661	Old barn	Partial Full access to building but not to internal Barn Owl box	Yes	1000's of decomposed pellets covering floor beneath Barn Owl box, creating layer of small mammal bones. Few fresh pellets. Barn Owl droppings (white splashing) beneath Barn Owl box	Active Roost Site & Potential Nest Site Historical nest/roost site
B2, connected to B3	563437	318258	Farm house building	Full	Yes	Splashing beneath beam & 8 pellets	Active Roost Site
B3	563448	318251	Stable/ workshop	Partial	No	No evidence	None, unsuitable
B4	563467	318264	Tin roofed shed, attached to northeast side of larger building	Full	No	No evidence Raised ledge in southwest corner potentially suitable nest site location. Suitable entry access for Barn Owl.	None
B5	563454	318231	Large metal warehouse building	None, external assessment	No, but not internally accessed	No evidence Fully sealed modern structure with no access/entry points for Barn Owl. Likely high level of disturbance due to level of use. Unsuitable.	None, unsuitable



Building Number	X	Y	Feature	Access?	Barn Owl Evidence?	Barn Owl Field Sign	Barn Owl Site
B6	563458	318217	Large barn structure and adjacent connected small brick stable building to south	Partial – internal access only to southern joining small brick stable	Yes	Stable to south of main building: 5 pellets, some splashing. No suitable ledges for nesting.  Main building: Not accessed	Stable to south of main building: Temporary Rest Site  Main building: Not accessed, Potential Nest Site
B7 Hardwick farms	563476	318192	Old barn	Full	No	None  Barn fully inspected and no evidence found. Unsuitable for nest site due to lack of ledges/elevated platforms.	None
B9	563472	318279	Tin roofed shed/barn	Full	Yes	100+ pellets of varying ages beneath beams and lots of splashing.  Limited suitable ledges for nesting.	Active Roost Site Heavily used roost site.
B10	563315	315804	Group of agricultural buildings – including Zurich barn	None, external assessment	No, but not internally accessed	No evidence	Potential Nest Site Suitable for Barn Owl and therefore Potential Nest Site Further surveys required
B11	563979	315445	Old stables	Full	No	No evidence	None, unsuitable
B12	563979	315395	Open-sided barn	Full	No	No evidence	None, unsuitable
B13	563936	315383	Closed barn	Full	No	No evidence	None, unsuitable
B14	563889	315418	Workshop, in constant use	Full	No	No evidence	None, unsuitable



### **1.3 References**

- Barn Owl Trust, (2012). Barn Owl Conservation Handbook, Pelagic Publishing, Exeter.
- Shawyer, C. R. (2012). Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester.
- HMSO (Her Majesty's Stationary Office), (1981). Wildlife and Countryside Act (as amended by the Countryside and Rights of Way Act 2000). HMSO, London.