**Stone Barn at Waddow View,**
**Waddington Road, Clitheroe BB7 2HX**

# UPDATED LICENSED BAT SURVEY AND ASSESSMENT

**March 2018**

**[ERAP (Consultant Ecologists) Ltd ref: 2018-046]**
**[Ribble Valley Borough Council ref: 3/2014/0597]**

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| Survey Type: | Surveyors[1] | Survey Date(s) |
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| **Revised and issued by** | Victoria Burrows | 5th March 2018 |
| **Report issued to** | David Wilson Homes | |
| **Copy Number** | 1 | |

[1] *Licence reference numbers*

**Bats**

- Victoria Burrows, Natural England Class Survey Licence (bats, Level 2) Registration Number 2015-10390-CLS-CLS

**Barn Owl**

- Victoria Burrows, Natural England Class Licence to survey for barn owl (*Tyto alba*) for the purposes of assessing the potential impacts of future development. Registration Number CL29/00061

## SUMMARY


### Introduction and Scope

i. ERAP (Consultant Ecologists) Ltd was commissioned to carry out an updated licensed bat survey and assessment of the dilapidated stone barn at the proposed residential development site off Waddington Road, Clitheroe in February 2018.

ii. The survey was necessary to satisfy condition 18 of the outline planning permission, provide appropriate guidance to the housebuilder and comply with current survey guidelines and best practice.

iii. The scope of survey applied comprised a daylight survey and assessment of the barn by an appropriately experienced, licensed and qualified surveyor, in accordance with standard, recognised survey guidelines.

### Results of Survey, Assessment and Recommendations

#### *Bat Species*

iv. No evidence of the current or previous use of the barn by roosting bats was found in February 2018 (or during previous surveys carried out in September 2012 and June 2014).

v. The presence of a significant roost such as a maternity roost and use by bats in the hibernation season is reasonably discounted owing to the absence of features and suitable opportunities.

vi. The stone barn is assessed to be of low suitability for use by single crevice roosting bats. The brick annex is of negligible suitability.

vii. Owing to the time since the last (2014) surveys, the condition of the habitats surrounding the barn and the 'low suitability' assessment of the stone section of the barn, in accordance with current survey guidelines to give confidence in a negative result (i.e. likely absence of a roost) the demolition works must be preceded by at least one emergence / dusk re-entry survey carried out between May and mid-September inclusive.

viii. If evidence of use of the barn by roosting bats is detected it is advised that appropriate mitigation, in accordance with Natural England guidance, is entirely feasible.

ix. **Section 5.1** of the report describes the best practice measures to be applied during the demolition.

#### *Bird Species*

x. No evidence of use of the barn by nesting or roosting barn owl is present.

xi. The barn is suitable for use by nesting feral pigeon and other passerine birds and the guidance at **Section 5.2** is applicable.

#### *Other Guidance*

xii. To ensure compliance with relevant wildlife legislation, the guidance at **Section 5.3** in relation to the enhancement of opportunities for biodiversity at the site developed site is applicable.

### Conclusion

xiii. A comprehensive daylight licensed bat survey, in accordance with standard survey guidelines, has not found evidence of the current or previous use of the barn by roosting bats.

xiv. A pre-demolition survey in the bat activity season is necessary to comply with current guidelines and inform the demolition.

xv. Measures to achieve a net gain for biodiversity in accordance with the development proposals are specified in **Section 5.3** and are entirely feasible to achieve compliance with the NPPF and best practice.

## 1.0 INTRODUCTION

### 1.1 Background

1.1.1 Outline planning permission for the construction of up to 275 new dwellings and access at the site off Waddington Road, Clitheroe was granted on 6th March 2015 (Ribble Valley Borough Council reference 3/2014/0597). As part of the development it is proposed to demolish a dilapidated stone barn in the north-eastern corner of the site. The Ordnance Survey (OS) grid reference at the barn is SD 74077 42242.

1.1.2 Condition 18 of the consent states:

"*Prior to the demolition or any renovation works on the barn in the north eastern corner of the site, appropriate surveys shall be carried out to determine whether the barn is used as a roost for bats and, if so, to provide detailed advice on mitigation and design requirements. The results of the survey and any proposed mitigation measures shall be submitted for the written approval of the Local Planning Authority; and any mitigation measures shall be carried out in accordance with the approved details".*

1.1.3 ERAP (Consultant Ecologists) Ltd was commissioned to carry out the relevant survey at the barn to facilitate the validation of the reserved matters application in February 2018.

### 1.2 Brief Description of the Site and Survey Area

1.2.1 The barn is located at the north eastern corner of the 9.2 hectare site. The wider site consists of large fields of improved and semi-improved grassland with boundary hedgerows, scattered trees, drainage ditches and marginal tall-herb vegetation. The barn is the only building within the site boundary.

1.2.2 Immediately north of the barn is existing residential development off Milton Avenue. Land to the east is an operational construction site. South and west of the barn is a field of improved grassland with hedgerows extending from the barn to the west and south, refer to **Figure 8.1**.

1.2.3 The existing bungalow is a brick built property with a pitched terracotta tile covered roof. There are flat roofed extensions on the rear and side elevations and a flat roofed garage attached to the north elevation.

**Insert 1:** West and south elevations of the stone barn

### 1.3 Scope and Objectives of Survey

1.3.1 The scope and objectives of the survey carried out in February 2018 were to:

a. Consult the reports of previous licensed bat surveys carried out at the barn;

b. Assess the suitability of the barn to support roosting bat species at any time of year;

c. Examine the exterior and interior (where possible) of the barn for evidence of the current and previous presence of roosting bat species;

d. Examine the barn for evidence of use by nesting birds (including barn owl);

e. Carry out appropriate survey and assessment to identify any other ecological considerations;

f. Provide guidance in accordance with wildlife legislation, the *National Planning Policy Framework* (Great Britain Department for Communities and Local Government, 2012), the *Bat Workers' Manual* (Mitchell-Jones & Mcleish, 2004), the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016) publication and best practice in relation to the proposed demolition; and

g. Detail the scope of any further actions, if necessary, that may be required prior to and during the demolition works.

## 2.0 METHOD OF SURVEY

### 2.1 Desktop Study and Previous Bat Survey Reports

2.1.1 Previous licensed bat survey reports prepared for the barn were consulted and comprised:

a. *Chews Farm Clitheroe, Waddow View Phase 2 Ecological Assessment* (Bowland Ecology, 2012) including a daylight inspection and dusk emergence survey carried out on 26th September 2012; and

b. *Waddow View, Land off Waddington Road, Clitheroe. Ecological Assessment* (Penny Anderson Associates, July 2014) consisting of a daylight external and internal inspection and dusk emergence survey on 10th June 2014 followed by a dawn re-entry survey for bat activity on 11th June 2014.

### 2.2 Updated Daylight Bat Survey and Assessment

**Survey Personnel, Survey Dates and Conditions**

2.2.1 The updated survey was carried out by Victoria Burrows and assistant on 22nd February 2018; the weather conditions were dry, overcast with sunny intervals, a light air (Beaufort Scale 1) and a temperature of 3°C. The conditions were suitable for the scope of works carried out.

2.2.2 Victoria holds a Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-10390-CLS-CLS. The surveyor's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

**Daylight Survey**

2.2.3 The survey of the barn was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016).

2.2.4 An inspection of the external surfaces, walls and roofs of the barn was carried out to find potential bat roosting habitat or accesses into internal areas where roosts may be present. Ladders were used to gain access to examine cracks and crevices in the external walls with torches and an endoscope. Searches for evidence of bat presence in the form of droppings, urine stains, feeding signs, grease marks and other evidence were carried out.

2.2.5 The interior of the barn was not accessible but the underside of the roof, the ground floor and the floor of the hayloft were viewed from the open window and doorway apertures. Ladders used to gain access to view the interior of the barn from the high window aperture on the north elevation.

2.2.6 A list of equipment used is detailed at **Table 2.1**, below:

**Table 2.1: Survey Equipment Used During Daylight Bat Survey**

| |
|---|
| Ladders |
| LED Lenser P14 torch |
| Clulite CB2 hand lamps |
| Canon Ixus digital camera |
| 8x20 binoculars |
| Ridgid Micro Inspection Camera Endoscope CA-300 |

2.2.7 The suitability of the barn has been assessed in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn),* (Collins, J. (ed), 2016), taking into account the suitability of gaps for access by bats, the presence (or absence) of features suitable for use by roosting bats within the barn (including crevice dwelling and species which can roost in the open in roof voids), and the suitability of the surrounding habitats for use by foraging and commuting bats.

## 2.3 Habitat Assessment for Commuting / Foraging Bats

2.3.1 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn),* (Collins, J. (ed), 2016). Reference has been made using the following categories and descriptions / examples, presented at **Table 2.2**, below.

**Table 2.2: Consideration of Suitability of Foraging and Commuting Habitat for Bats**

| Suitability | Commuting Habitat | Foraging Habitat |
|---|---|---|
| Negligible | Negligible habitat features on site likely to be used by commuting or foraging bats. | |
| Low | Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat. | Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or patch of scrub. |
| Moderate | Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. | Habitat that is linked to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water. |
| High | Continuous, high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.<br>Habitats close to and connected to known roosts. | High-quality habitat that is well-connected to the wider landscape and is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.<br>Habitats close to and connected to known roosts. |

## 2.4 Barn Owl and Bird Species

2.4.1 For completeness, the presence of any sign of barn owl and nesting birds within the barn was searched for. This included the search for pellets, faecal splashes and feathers which may indicate use by roosting or nesting barn owl in accordance with guidance in *The Barn Owl Conservation Handbook* (Barn Owl Trust, 2012) and *Barn Owl Tyto alba Survey Methodology and Techniques for use in Ecological Assessment. Developing Best Practice in Survey and Reporting* (Shawyer, 2011).

## 2.5 Survey Limitations

2.5.1 The inability to access the interior the barn is a recognised survey limitation. The conclusions and recommendations made in **Sections 4.1** and **5.1** take into consideration this limitation and also consider the ability to view the interior of the building from the window apertures and the results of the previous bat surveys carried out in 2012 and 2014.

2.5.2 No other survey limitations were experienced.

## 3.0 SURVEY RESULTS AND ASSESSMENT

### 3.1 Desktop Study

3.1.1 No evidence of use of the barn by roosting bats or nesting / roosting barn owl was found in September 2012[1] or 2014[2].

3.1.2 Common pipistrelle bats were recorded flying around the barn on both survey occasions.

### 3.2 Daylight Survey

3.2.1 Please refer to **Figure 8.1**, appended. Photographs are presented at **Table 8.1,** appended.

3.2.2 The main barn has stone elevation walls that support a pitched stone tile covered roof. Attached to the southern gable end wall is a lower, single storey brick built section with a pitched corrugated sheeting covered roof.

3.2.3 The barn is in a dilapidated condition, holes are present in the roof and there is damage to the stonework around the doorway and window apertures. Internally the floor of a timber boarded hayloft is rotten and partially collapsed. Comparison of the current conditions with photographs taken in 2014 indicate that the condition of the barn has deteriorated in recent years.

3.2.4 Owing to the exposed and dilapidated condition the use of the barn by void roosting bats is reasonably discounted.

3.2.5 The visible internal sides of the stone walls are well-pointed and provide no opportunities for bat access. The brick wall sections are well-pointed; no opportunities for bat access were found, refer to **Photo 5**. No gaps, cracks, open mortise joints or other opportunities for bat access were observed at the timber roof truss inside the barn.

3.2.6 Features with potential for use by crevice roosting bats at the barn comprise:

a. Within cracks and holes at the stone elevation walls, particularly on the north facing gable end, refer to **Photos 1** and **2**;

b. Gaps in the underarch and around the timber frame above the window aperture on the north elevation wall and the doorway on the west elevation, refer to **Figure 8.1**;

c. Between the stone roof tiles (although this feature is of limited suitability owing to the absence of any underfelt); and

d. Beneath the stone roof tiles at the wall top on the north and south gable elevations of the main barn.

3.2.7 Careful examination of the underside of the roof coverings and also inspection of other accessible features from ladders and with an endoscope did not detect any bats or evidence of previous use by roosting bats.

3.2.8 The stone barn is assessed to be of low suitability for use by individual / low numbers of crevice roosting bats. The brick annex is of negligible suitability.

### 3.3 Commuting and Foraging Bats

3.3.1 The barn is positioned in the corner of a field of improved grassland with adjoining hedgerows and existing built land to the north and east. Owing to the absence of nearby woodland or open water the site / barn

[1] *Chews Farm Clitheroe, Waddow View Phase 2 Ecological Assessment* (Bowland Ecology, 2012)

[2] Waddow View, Land off Waddington Road, Clitheroe. Ecological Assessment (Penny Anderson Associates, July 2014)

area is unlikely to attract bat species more typically associated with woodland habitats such as brown long-eared bat or open water such as Daubenton's bat.

3.3.2 As evidenced by the bat activity surveys carried out in 2012 and 2014 the site is assessed to be of low suitability for the attraction of foraging bats such as pipistrelle species.

### 3.4 Barn Owl and Bird Species

3.4.1 No evidence of use of the barn by barn owl was recorded.

3.4.2 A flock of 8 feral pigeon were flushed from the barn and piles of droppings over the ground floor and floor of the timber hayloft indicate use by roosting (and possibly nesting) feral pigeon, refer to **Photos 3** and **4**.

3.4.3 No other old (or active) bird nests were recorded at the barn.

3.4.4 A single hole approximately 3.5 metres from ground level on the north facing stone elevation wall of the barn was filled with bird droppings, indicating use by a roosting passerine bird.

## 4.0 EVALUATION AND ASSESSMENT

### 4.1 Bats

4.1.1 No evidence of the current or previous use of the barn by roosting bats was found during the comprehensive daylight and bat activity surveys carried out in February 2018. No evidence of use of the barn by roosting bats was found in September 2012 or June 2014.

4.1.2 Appropriate and proportionate survey effort, in accordance with standard survey guidelines (*Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016)) has been applied to reasonably discount the presence of a significant roost such as a maternity roost owing to the absence of features and suitable roosting opportunities. Use of the barn by bats in the hibernation season is reasonably discounted owing to the dilapidated and exposed condition of the barn that contribute to the likely absence of suitable and / or thermally stable conditions required by bats in the winter months.

4.1.3 Owing to the time since the last (2014) surveys, the condition of the habitats surrounding the barn and the 'low suitability' assessment of the stone section of the barn and in accordance with Table 7.3 of the *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016) the completion of a bat emergence / dusk re-entry survey is recommended.

4.1.4 The recommended number of survey visits to give confidence in a negative result (i.e. likely absence of a roost) for buildings of low suitability is one survey. Further information is provided in **Section 5.1**.

### 4.2 Birds

4.2.1 No evidence of use of the barn by nesting or roosting barn owl was found.

4.2.2 The barn is suitable for use by nesting feral pigeon and possibly crevice nesting passerine birds such as blue tit; the guidance at **Section 5.2** is applicable.

## 5.0 MANDATORY ACTIONS, RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

### 5.1 Bats

**Pre-demolition Bat Emergence / Re-entry Survey**

5.1.1 To comply with the current guidelines, demolition works at the barn must be preceded by a bat emergence / re-entry survey. The survey can be carried out during suitable weather conditions between May and

mid-September inclusive and will involve the use of two surveyors to ensure observations of all identified roost opportunities are achievable.

5.1.2 If evidence of use of the barn by roosting bats is detected it is advised that appropriate mitigation, in accordance with Natural England guidance, is feasible.

**Actions to be Carried Out During the Works**

5.1.3 Subject to the absence of roosting bats (to be determined by the bat activity survey described above) and nesting birds, refer to **Section 5.2,** there is no timing constraint on the commencement of works in relation to bats.

5.1.4 As a precaution, during demolition works, it is recommended that the roof tiles, ridge copings and timber window frames are removed carefully by hand. All contractors must wear gloves, tiles should be lifted (rather than slid) and care must be taken to check the underside of each tile for bats prior to stacking / discarding.

***Discovery of a Bat***

5.1.5 If at any time during the works a bat is discovered, or suspected, all contractors must withdraw from the area and ERAP (Consultant Ecologists) Ltd or Natural England must be contacted for further advice.

## 5.2 Birds

**Protection**

5.2.1 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are nesting. It is advised that demolition works are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-work nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive. This guidance is also the subject of Condition 20 of the outline planning permission which states:

*"No development shall take place until a check for nesting birds has been undertaken if vegetation removal is to take place between 1st March to 31st August, inclusive. The nesting bird check shall be undertaken by a suitably qualified ecologist".*

5.2.2 If nesting birds are detected, the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

## 5.3 Enhancement of Opportunities for Foraging and Roosting Bats

**Foraging and Commuting Bats**

5.3.1 Measures to retain and enhance opportunities for foraging bats have been accommodated in the site design by the retention of the boundary hedgerows and trees and the drainage channels / water course.

5.3.2 As detailed in the information submitted to satisfy condition 21 of the outline planning permission these features will be enhanced by appropriate landscape planting to improved their invertebrate assemblage and provide additional opportunities for foraging bats (and birds).

5.3.3 To further conserve opportunities for foraging bats at the site the use of native plant species and species known to be of value for the attraction of wildlife in the landscaping scheme is proposed. Appropriate plants comprise night-scented flowers. A list of suggestions is presented below.

**Table 5.1: Recommended plants for use in gardens to attract bats (extracted from the BCT publication 'Encouraging bats, A guide for bat-friendly gardening and living').**

| Flowers for Borders | | Herbs |
|---|---|---|
| Aubretia (spring to early summer) | Mexican aster (summer to autumn) | Angelica |
| Candytuft (summer to autumn) | Michaelmas daisy | Bergamot (summer to early autumn) |
| Cherry pie (summer to autumn) | Night-scented stock (summer) | Borage (spring to early autumn) |
| Corncockle | Ox-eye daisy (summer) | Coriander (summer) |
| Cornflower | Phacelia (summer to autumn) | English marigolds |
| Corn marigold | Poached egg plant (summer) | Fennel (summer to early autumn) |
| Corn poppy | Primrose (spring) | Feverfew (summer to autumn) |
| Echinacea | Red campion (spring) | Hyssop (summer to early autumn) |
| English Bluebell (spring) | Red valerian | Lavenders |
| Evening primrose | Scabious (summer) | Lemon balm |
| Field poppies (summer) | St John's wort (spring) | Marjoram (summer) |
| Honesty (spring) | Sweet William (summer) | Rosemary (spring) |
| Ice plant 'Pink lady' (early autumn) | Tobacco plant | Sweet Cicely |
| Knapweed (summer to autumn) | Verbena (summer to autumn) | Thyme (summer) |
| Mallow (summer to autumn) | Wallflowers | |

### Roosting Bats

5.3.4 As habitats suitable for the attraction of foraging bats will be retained and enhanced at the site it is recommended that the development incorporates the installation of at least 10[3] commercially available bat access panels at the new buildings.

5.3.5 The bat access panels should be sited at least four metres above ground level, ideally facing or close to areas of landscape planting or existing linear features (i.e. the drain). The access panels should not be positioned over windows or doorways where bat droppings may become a nuisance. Once the development layout has been finalised, an ecologist will advise on appropriate positions for the bat access panels. Suitable bat access panels are available from NHBS Ecology (www.nhbs.com) or Wild Care Shop (www.wildcareshop.com) and are presented at **Insert 1**, below:

**Insert 1:** Example of commercially available bat access panels
(Left and centre left: IBStock products and Right and centre right: Habibat products)

## 6.0 CONCLUSION

6.1 A comprehensive updated daylight licensed bat survey, in accordance with standard survey guidelines, has not found evidence of the current or previous use of the barn by roosting bats.

6.2 The stone portion of the barn is assessed to have low suitability for use by crevice roosting bats. To comply with current survey guidelines, demolition of the barn must be preceded by at least one updated

[3] The number of bat access panels recommended is based on the proposed site layout, the house type specification and the alignment of properties to habitats suitable for use by bats. The specified number also takes into account the fact that a number of bats (and more than one species) will use the same roosting feature. This recommendation is concluded to be appropriate and proportionate to the proposals.

bat emergence / re-entry survey for bat activity between May and mid-September inclusive. If roosting bats are present it is concluded that appropriate and proportionate mitigation in accordance with Natural England guidance is entirely feasible.

6.3 Mandatory measures for the protection of nesting birds and precautionary best practice measures for the protection of bats are described in **Section 5.0**.

6.4 Measures to achieve a net gain for biodiversity in accordance with the redevelopment proposals are specified in this report and other documents submitted with the reserved matters application and are entirely feasible to achieve compliance with the NPPF and best practice.

## 7.0 REFERENCES


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## 8.0 APPENDIX 1: TABLES AND FIGURES

**Table 8.1: Photographs**

**Photo 1:** North elevation of stone barn showing gaps in the stonework and beneath the window lintel

**Photo 2:** Gaps in the stone work

**Photo 3:** Interior of stone section showing dilapidated timber hayloft

**Photo 4:** Interior of stone barn showing mortared / pointed internal walls and feral pigeon droppings

**Photo 5:** Interior of brick annex; no opportunities for roosting bats

**Photo 6:** Hedgerow to east of barn and adjacent construction site (facing north)

**Figure 8.1: Plan to Show Barn and Features**