

# Protected Species Survey: Final report Bankside Farm, Goole Fields

September 2021

# Prepared by Principal Ecologist Helen Archer BSc (Hons) MCIEEM on behalf of:

Mike Glew

High street farm

High street

Barmby-on-the-marsh

Goole

**DN14 7HT** 





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Report Overview			
Client details	Mike Glew		
Works extent	Bankside Farm, Goole Fields, East Yorkshire, DN14 8AX		
Revision Version 1 (Final)			
Issued	08.09.2021		
Prepared by	Abbie Smith BSc (Hons) – Assistant Ecologist		
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#### 1.0 INTRODUCTION

# 1.1 Background

- 1.1.1 Archer Ecology Ltd was commissioned by Mike Glew to complete a protected species survey of a redundant barn located south-west of Swinefleet Road in Goole Fields, Goole. The property comprises a main barn (see Figure 1, labelled No. 1) and a series of smaller outbuildings (see Figure 1, labelled No. 2-6) in an L-shape configuration, surrounded by fields and other residential/farm dwellings. The survey was required ahead of proposed modifications to the property in preparation for residential occupancy.
- 1.1.2 The central extent of the site is Ordnance Survey Grid Reference (OSGR) SE 75384 21405; see Figure 1, below.



Figure 1: Barn off Swinefleet Road in Goole Fields

## 1.2 Purpose

1.2.1 The purpose of this report is to identify the potential for the property to support protected species and to predict any potential impacts arising from the works upon bats and their roost sites. This report also details the requirements for any further necessary bat survey and/or monitoring works and provides details of proportionate mitigation measures.



#### 2.0 LEGISLATION

# 2.1 UK Bat Species

- 2.1.1 Bats receive protection under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). It is an offence to:
  - Deliberately capture (or take), injure or kill a bat
  - Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection or obstruct access to any such place.
  - Damage or destroy the breeding or resting place (roost) of a bat, whether in use or not.
- 2.1.2 It is also an offence to obstruct access to any bat roost or to disturb bats occupying a roost.
- 2.1.3 The above offences carry penalties of up to £5,000 and/or 6 months imprisonment per offence.

# 2.2 Nesting Birds

- 2.2.1 All nesting birds and active nests are protected under the Wildlife and Countryside Act (1981, as amended). This makes it an offence to:
  - Intentionally kill, injure or take any wild bird;
  - Intentionally take, damage or destroy the nest of any wild bird whilst it is in use of being built; and
  - Intentionally take or destroy the egg of any wild bird.
- 2.2.2 It is also an offence to intentionally or recklessly disturb any wild bird listed under Schedule 1 of the Wildlife and Countryside Act (1981, as amended) while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.



#### 3.0 METHODOLOGY

# 3.1 Bat Roost Potential Survey

- 3.1.1 A daytime inspection of the main barn and six ancillary outbuildings, together with any other structure(s) with a potential to offer bat roosting features, was undertaken on 23<sup>rd</sup> August 2021 by Principal Ecologist Helen Archer BSc (Hons) and Assistant Ecologist Abbie Smith BSc (Hons) of Archer Ecology Ltd. The ecologists were equipped with a Clulite torch (1 million candle power) and telescopic ladders.
- 3.1.2 Helen is a bat specialist with over eleven years' experience working as a consultant ecologist and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Helen holds a level 2 Natural England bat survey licence since 2015 (Bat Class Licence WML-A34-Level 2, 2015-14111-CLS-CL).
- 3.1.3 In line with current industry standard bat survey guidelines issued by Bat Conservation Trust (BCT), the internal fabric of the buildings were searched for signs of roosting bats (i.e., live or dead bats, droppings, feeding remains, staining etc.), where accessible. All potential bat roosting locations within the loft void were recorded (Collins, 2016) together with potential access and egress points.

#### 3.2 Nesting Bird Survey

3.2.1 At the same time as the BRP survey, all evidence of former and/or current nesting bird activity was recorded, including active/redundant nests, calling chicks, feeding parents and nest construction activities.

# 3.3 Survey limitations

3.3.1 It was not possible to walk across the upstairs, first floor room of the barn due to the unpredictable condition of the floor which was considered potentially unsafe. However, the ecologists were still able to sufficiently inspect this floor, and all potential roosting features, from a stairway at the eastern elevation of the building and ladders from the within the central extent of the building.



#### 4.0 RESULTS

## 4.1 Bat Roost Potential Survey

#### Building 1 – Main barn

4.1.1 The main barn is a large, brick-built structure with a single-pitched, pantile roof (see Photograph 1, Appendix I). The barn comprises two storeys, with the first floor constructed of timber beams at a height of ~4m to the apex (ridge beam).

#### Exterior

- 4.1.2 The external masonry of the main barn was observed to be in good condition generally with only minor spalling evident along the southern, rear elevation (see Photograph 2, Appendix I). However, this was considered to be of insufficient depth to provide potential bat roosting features.
- 4.1.3 The rafters and ridge beam of the roof are overlain with intact, impermeable membrane throughout which presents a physical barrier to bats either entering or departing the loft space. However, there is a potential for bats to inhabit openings located between the underside of the pantiles and the roof membrane, albeit this potential was limited by the consistently intact condition of the roof.
- 4.1.4 Considering the quality and abundance of potential roosting features, the roof of the main barn was appraised as having 'low' potential to support roosting bats in line with BCT categories. The remaining external fabric of the structure was considered to offer 'negligible' potential to support bat roosts.

## Interior

- 4.1.5 The interior of the main barn, including the loft space, was subjected to medium levels of ambient light which provides unsuitable conditions for bat inhabitancy (see Photograph 3, Appendix I).
- 4.1.6 The ground and first floor comprise single, open rooms with intact brickwork. Potential roosting features were limited to shallow brickwork cavities associated with c.20 ventilation holes within the brickwork (see Photograph 4, Appendix I). The apertures are located along the upper extents of the ground floor walls and have the potential to provide access/egress points for bats into the barn. Detailed, elevated inspections of each aperture, and associated wall cavities, yielded no evidence of current or historic roosting



- activity. Furthermore, dense accumulations of cobwebs and detritus were observed within the ventilation openings to indicate that bats have not historically or recently used these features.
- 4.1.7 Evidence of recent bat activity, including two scattered guano, were recorded on the ground floor of the main barn (see Photograph 5, Appendix I); however, given a lack of potential roosting features inside the barn, this indicated nothing more than night foraging and/or exploratory behaviour.
- 4.1.8 Considering the quality and abundance of potential roosting features, the interior of the main barn was, thus, assessed as having 'low' potential to support roosting bats in it's current condition. Given that all potential roosting features could be fully inspected at the time of the survey, and an absence of bat occupancy confirmed, the client was advised to conceal all potential access points imminently to discourage bats from entering the building (see Photographs 6, 7, 8 and 9, Appendix I). This is to avoid the potential for the proposed works to result in adverse impacts to bats and their roost sites should the barn become inhabited by bats in future. Given the loss of access/egress points the barn was thereafter assessed as having 'negligible' bat roosting potential.

#### Building 2 - Ancillary building

- 4.1.9 Outbuilding no. 2 comprises a single-story, brick constructed storage shed with a flat, corrugated panelled roof (see Photograph 10, Appendix I). The internal and external fabric of the building appeared to be intact throughout and no features with a potential to support roosting activity observed. Subsequently, the building was appraised as having 'negligible' potential to support roosting bats. Furthermore, no potential access/egress points, retaining connectivity to the building, were identified.
- 4.1.10 Considering a lack of potential roosting features, outbuilding 2 was appraised as having 'negligible' potential to support roosting bats in line with BCT categories.

#### Buildings 3, 4 and 5 - Ancillary buildings

4.1.11 Outbuildings 3, 4 and 5 comprise former stables and storage units that are brick-constructed and support old timber beam roofs at a height of ~4m to the apex. The rafters and ridge beams were overlain with intact, impermeable membrane throughout which is



expected to present a physical barrier to bats either entering or departing the rooms (see Photograph 11, Appendix I). However, there is a potential for bats to inhabit openings located between the underside of the pantiles and the roof membrane, albeit this potential was limited by the consistently intact condition of the roof.

4.1.12 Considering the quality and abundance of potential roosting features, the roof of the outbuildings 3, 4 and 5 were appraised as having 'low' potential to support roosting bats in line with BCT categories. The remaining, exterior of the buildings and the internal fabric was considered to offer 'negligible' potential to support bat roosts.

#### Building 6 - Dovecote

- 4.1.13 Outbuilding 6 comprises a redundant, two-storey dovecote which is brick constructed and supports a pitched, timber roof clad with pantiles (see Photograph 12, Appendix I). The building features open doorways and windows along the eastern and southern elevations which offer optimal access/egress points for bats (see Photographs 13 & 14, Appendix I). The interior of the building also presented numerous potential roosting features in the form of structural crevices, masonry defects and openings between the walls and the timber framework. A single bat dropping was observed on the door jambs and bottom sill of an open doorway leading to the upstairs void (see Photograph 15, Appendix I). The guano appeared to be relatively new and likely deposited this season (i.e., mid-2021). However, observations of all potential roosting features associated with the interior of the structure yielded no evidence of roosting activity although the potential for the structure to be inhabited by bats in future should not be discounted.
- 4.1.14 Considering the quality and abundance of potential roosting features the internal fabric of the dovecote was appraised as having 'moderate' potential to support crevice dwelling bats, including summer and transient roosts. The roof of the dovecote was further appraised as having 'low' potential to support roosting bats.



# 4.2 Nesting Bird Survey

- 4.2.1 A small number of redundant swallow's *Hirundo rustica* nests were recorded within the barns. These have been constructed close to the roof timbers along the interior of the ancillary buildings. However, no evidence of associated nesting activity was recorded which is unsurprising given that September falls outside of the main nesting season for this species.
- 4.2.2 There is also a potential for horizontal ledges and guttering associated with the buildings to be inhabited by nesting birds in future.



#### 5.0 CONCLUSION AND RECOMMENDATIONS

#### 5.1 Roosting Bats

# Buildings 1-5 - Main barn and ancillary

- 5.1.1 There are no further constraints with respect to modifications proposed to the interior of buildings 1-5 (i.e., the main barn and connecting outbuildings). However, should proposals incur modifications and/or disturbances to the roof structure of buildings 1, 2-5 it would be necessary for a single dusk emergence bat survey to be completed in advance to detect any roosting activity associated with the roofs.
- 5.1.2 The survey should be completed by suitably experienced ecologists and scheduled during the main bat activity period (i.e., May to August, inclusive) and during optimal weather conditions.

#### Building 6 - Dovecote

- 5.1.3 The interior of outbuilding 6 was appraised as having moderate potential to support crevice dwelling bats and offers suitable conditions to be inhabited during the summer months and/or on a transient basis. Should proposals incur modifications and/or disturbances to the internal fabric of the dovecote or result in the loss of potential access points presented by the open doorways and windows along the eastern and southern elevations, it would be necessary to carry out further survey works to the building in advance. In line with this roosting category, two nocturnal bat activity surveys would be required in ahead of the works to detect any roosting activity associated with the building.
- 5.1.4 The surveys would comprise a single dusk emergence and dawn re-entry survey to be completed during the main bat activity period (i.e., May to August, inclusive). The surveys should be completed by experienced ecologists and during optimal weather conditions.

#### 5.2 Nesting Birds

5.2.1 The building works should be planned outside of the main nesting bird season (thereby avoiding March to August, inclusive) to avoid interface with nesting birds. If this is not possible, it is advised that the buildings are subjected to a pre-works nesting bird survey by a suitably experienced ecologist in advance.



# APPENDIX I - PHOTOGRAPHS



Photograph 1: Exterior view of the barn roof, showing intact pantiles



Photograph 2: Exterior view of the barn's masonry showing minor spalling





Photograph 3: General view of barn roof internally, showing intact membrane



Photograph 4: Interior view of barn, showing small ventilation holes





Photograph 5: Fresh dropping found in the barn

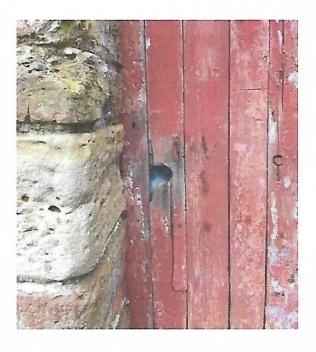


Photograph 6: Ventilation holes now covered with plastic sheeting to prevent access





Photograph 7: Top of door now tightly concealed with wood panel



Photograph 8: Gap in door now tightly concealed with plastic sheeting





Photograph 9: Bottom of door now concealed with plastic sheeting



Photograph 10: Ancillary building with corrugated roof



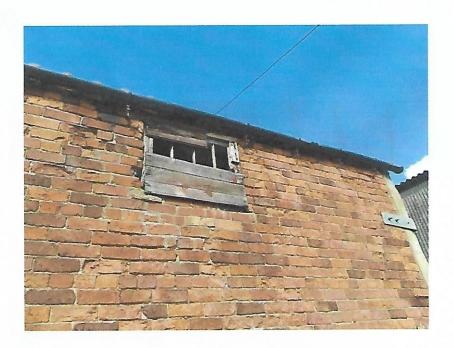


Photograph 11: Interior of main barn with lined, intact membrane



Photograph 12: Exterior view of the dovecote which shows intact pantiles





Photograph 13: Outbuilding 6 potential access point for bats at high elevation



Photograph 14: Outbuilding 6 with potential access points for bats at low elevation





Photograph 15: Fresh dropping on door sill in dovecote