Protected Species Survey at 17 Greengate Lane, South Killingholme, North Lincolnshire DN40 3HB

June 2013

Andrew P. Chick MPhil
Ecological Consultant

The Old Farmhouse, Washdyke Lane, Fulbeck,
Grantham, Lincs NG32 3LB
Tel: 07880700313
E-mail: andrew@forktail.co.uk

Report Prepared by Rod Strawson

Protected Species Survey at 17 Greengate Lane, South Killingholme, North Lincolnshire DN40 3HB

CONTENTS

PHOTOGRAPHS

Protected Species Survey at 17 Greengate Lane, South Killingholme, North Lincolnshire DN40 3HB

1 INTRODUCTION

Independent Ecologist and Protected Species Consultant, Andrew Chick MPhil, was commissioned by Jim Mumby (JEM Management Services) to undertake a protected species survey at 17 Greengate Lane, South Killingholme, North Lincolnshire, DN40 3HB. The survey is required in connection with a planning application to North Lincolnshire Council.

This report details the methods used, describes the habitats and species found on the site, discusses the results and makes recommendations for further work. The common English names are used for all species referred to throughout the text. The Latin name is also given following the common name the first time the species is referred to.

2 SITE DESCRIPTION

2.1 Site communities and habitats

17 Greengate Lane, located at NGR: TA 148 163 within the village of South Killingholme, is surrounded by houses and gardens. The survey site contains a single dwelling and numerous outbuildings in various states of repair and a former garden/small holding area (now overgrown and supporting course grasses and perennial herbs) to the south of the dwelling. It is bordered by mature hedging and contains various native and ornamental fruit trees, shrubs and flowering plants.

A site location and plan is given in Appendix 1 as Figure 1.

Photograph 1: 17 Greengate Lane (left) and brick outbuildings (right).

2.2 Bungalow

The bungalow is constructed of solid bricks, supporting a timber framed roof covered with Rosemary tiles. There is a single small roof void which is insulated and contains under felt throughout. The roof structure is generally in a good condition with no missing tiles. The internal ceilings are all present. Ambient light and draught levels were low. At the time of the

survey the ridge beam was extensively covered in cobwebs. Any soffits were tight fitting and all mortar joints sound.

2.3 Garage

Constructed of solid bricks, the garage contains no wall cavity. A timber framed roof covered with Rosemary tiles is present. This is open to the apex with no internal ceilings and contains under felt throughout. All windows and doors are intact and tight fitting. The roof structure is generally in a good condition with no missing tiles. Ambient light levels are high but draught levels low. At the time of the survey the ridge beam was extensively covered in cobwebs. Again any soffits were tight fitting and all mortar joints sound.

Photograph 2: Garage – northern aspect.

2.4 Brick outbuildings

An 'L' shaped arrangement of semi-detached buildings constructed of both solid bricks and single skin timber supporting a variety of timber framed roofs, both pent and apex covered with both concrete tiles and pantiles. The buildings are subdivided by internal brick walls, (some full height) and single skin timber walls into various compartments. There is no roof void present. All compartments are open to the apex and contain polythene or felt underlay throughout. The roof structure is generally in a good condition with little in the way of missing tiles and all mortar joints appear sound. At the time of the survey the ridge beam was extensively covered in cobwebs.


Photograph 3: Log store (left) and Poultry building 1 (right)

2.5 Other outbuildings

An open fronted, pent roofed, single skin log store, constructed of corrugated iron sheets is located adjacent to the eastern boundary, central to site. In addition, two detached single skin tongue and groove former timber poultry sheds are located at the southern end of the site. One covered by a pent roof, the other a traditional apex. Neither contain a roof void. The roofs are covered with either single skin corrugated roofing sheets or roofing felt. Only the building marked as poultry shed 1, (Figure 1) is in sound condition with low draught levels, complete glazing and snug fitting doors. The remaining buildings are in poor overall condition. High ambient light levels are present in all buildings.


Photograph 4: Poultry building 2 (left) and the Pear tree (right)

2.6 Proposed work

The proposed work entails the entire clearance of the site to facilitate redevelopment.

3 METHODS

The site was surveyed on 24 June 2013 by Rod Strawson (Natural England bat licence number 20122383 and great crested newt class licence number WML-CL08). All habitats and plant communities within and adjacent to the site were recorded and mapped. Representative photographs were taken.

During the initial appraisal of the site the protected species considered likely to occur on site were identified. These were:

- Bats
- Common species of birds

NOTE: the site was not surveyed for Barn Owl, as there were considered to be no opportunities for this species on site.

The methods used to survey for these species are detailed below.

3.1 Data search

The NBN (National Biodiversity Network) Gateway website was consulted in order to check for records of protected species from the area.

3.2 Bats

Aided where necessary by the use of a powerful torch ('Clulite CB2' 1,000,000 candlepower) and ladders, a visual search was made internally and externally of all cracks and fissures in the walls and the undersides of the roofs (where still present) of all structures on site for bats. Where accessible, all undisturbed surfaces were inspected for evidence of past and present occupation by bats in the form of: droppings, urine or fur staining, feeding remains, scratch marks and the bodily remains of bats.

Bat tree survey

Trees on the proposed development site were assessed for potential suitability for bat roosts during survey. All trees were inspected to assess their potential to hold bat roosts; the following signs were looked for:

- Holes, frost cracks, splits in branches/trunk
- Fissures, hollow sections of trunk, branches and roots
- Broken Limbs and loose bark
- Dense ivy
- Urine staining, droppings, fur rubbing and scratch marks
- Audible squeaking, strong smell of ammonia and flies around potential access points

The trees were inspected with the aid of close focusing binoculars (Swarovski EL 8x32 SV). Bat surveys of trees can be undertaken throughout the year.

A scoring system was applied to the trees using the following criteria.

Low probability of bat interest.
Trees with low bat interest are usually young trees without any deadwood or holes.

Medium probability of bat interest.
Trees in this category will have holes, cracks and crevices and loose bark suitable for roosting bats but no obvious roost signs such as staining and droppings at entrances.

High probability of bat interest.
Trees within this category will contain all the obvious roost features such as holes, cracks and crevices and loose bark and will also contain staining and droppings at the roost entrance or have been identified as a roost via a visual sighting of an exiting bat. (A licence is normally required for removal/development.)

Bat Activity survey

An evening activity survey was undertaken on the evening of 24 June 2012.

The aim of the survey was:

- To establish whether any enclosed places or niches within the buildings which could not be fully inspected during the daylight inspection were used by bats for roosting or as a place of shelter.
- To assess the value of the site for use by bats for foraging and feeding.

The survey was carried out in accordance with the Bat Surveys – Good Practice Guidelines (BCT, 2012) with the evening survey commencing at sunset and lasting for 2-3 hours.

Two experienced surveyors undertook the dusk survey. The surveyors' positions were chosen to get a clear view of both the building eaves and the ridge tile against a clear skyline.

One surveyor was equipped with a Pettersson D-240x time-expansion detector to electronically detect and identify bats and a sample of the bat calls from the Pettersson were recorded onto an Edirol R-09HR digital recorder. These calls were later analysed using BatSound computer software. The second surveyor utilised a Pettersson D-230x frequency division detector.

Levels of bat activity are strongly correlated with climatic conditions due to the influence these factors have on the abundance of insect prey. The climatic conditions throughout the survey were also recorded.

3.3 Common species of birds

All habitats were assessed for their potential to support nesting birds. All bird species seen or heard were noted. All disused and active nests were recorded.

3.4 Other statutorily protected species

As part of the extended walkover of the site and its environs, a search for signs of use by other statutorily protected species was also undertaken. Particular attention was focused on the habitats and plants and the presence of any ponds.

3.5 Survey Constraints

It should be noted that the absence of protected or rare species within the survey does not rule out them being present on site. There is always a risk of protected or rare species being over-looked, either owing to the timing of the survey or the scarcity of the species at the site.

4 RESULTS

4.1 Data search

The National Biodiversity Network (NBN) www.nbn.org.uk was searched for records of protected species within the 10km OS grid square TA 11.

4.2 Habitats and plant species

The habitat types and plant species recorded on the site are common and widespread in North Lincolnshire. There are no habitats or plants of local importance or significance. None of the plant species recorded on site appear on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). No nationally rare or scarce plants as defined by Wiggington (1999) and Stewart *et al* (1994) respectively were found.

4.3 Bats

No bat droppings were found in the roof void of the main bungalow or anywhere within the outbuildings.

The level of activity recorded does not suggest that the building is used as an established place of shelter for significant numbers of bats and there are no current indications that bats are breeding on site.

Bat tree survey

There was one tree within the survey site with the potential to support roosting bats. The following table gives a description and bat suitability for the tree inspected during the survey on 24 June 2013.

Tree No.	Species, Field notes and description	Located within site	Suitability to bats	Score
T1	Pear Tree *Pyrus communis* Mature single stem tree with limited features of bat roost potential.	Yes	Low roost potential	Low
T2	Silver birch *Betula pendula* Mature single stem tree with no suitable features	Yes	No	Low
T3	Fruit tree *Prunus sp* Multi stemmed tree with limited features of bat roost potential.	Yes	No	Low

Bat activity survey

During the emergence survey no bats were seen to emerge from any of the structures on site.

Emergence Survey 21:30 – 23:15hrs - 24 June 2013

Position 1 (at rear elevation of bungalow)

TIME	OBSERVATION
22.12hrs	1 brief passes of Common Pipistrelle.
22.13hrs	Single pass of Common Pipistrelle. Bat itself not seen
22.15hrs	Repeat passes of Common Pipistrelle. Feeding over site
22.25hrs	Repeat passes of Common Pipistrelle.
22.40hrs	Single pass of Common Pipistrelle.

Position 2 (at front elevation of bungalow and near outbuildings)

TIME	OBSERVATION
22.18hrs	1 brief passes of Common Pipistrelle.

Climatic Conditions:	
Start of Emergence Survey 21:30hrs Air Temperature: 14.2 ºC Light westerly winds Dry Cloud cover 5/10ths	**End of Emergence Survey** 23:15hrs Air Temperature: 11 ºC Light westerly winds Dry Cloud cover 5/10ths

During the activity survey very little bat activity was recorded around the buildings.

4.4 Birds

A typical assemblage of common British birds was recorded on the site and in the immediate environs of the site. A total of 15 species were noted; these are listed below:

English Name	**Latin Name**
Woodpigeon	*Columba palumbus*
Common Magpie	*Pica pica*
Jackdaw	*Corvus monedula*
Carrion Crow	*Corvus corone*
Blue Tit	*Parus caeruleus*
Barn Swallow	*Hirundo rustica*
House Martin	*Delichon urbicum*
Winter Wren	*Troglodytes troglodytes*
Blackbird	*Turdus merula*
Song Thrush	*Turdus philomelos*
Robin	*Erithacus rubecula*
House Sparrow	*Passer domesticus*
Chaffinch	*Fringilla coelebs*
Greenfinch	*Carduelis chloris*
Goldfinch	*Carduelis carduelis*

A number of traditional designed wooden bird nest boxes were found attached to both the outbuilding and bungalow. Mature hedgerows and rough grassland are found within and adjacent to the site, providing suitable nesting and foraging habitat for breeding birds.

4.5 Other statutorily protected species

No ponds were found in the immediate environs of the survey site. Overall the potential for other statutorily protected species likely to be affected by the development is considered to be very low and no further work is recommended.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Bats

Legal protection

In England, Scotland and Wales, all bats are strictly protected under the Wildlife and Countryside Act 1981 (and as amended); in England and Wales this legislation has been amended and strengthened by the Countryside and Rights of Way (CRoW) Act 2000.

Bats are also protected by European legislation; the EC Habitats Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 – often referred to as 'The Habitat Regs'. Taken together, all this legislation makes it an offence to:

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of the animals to survive, breed, or nurture their young or

likely to significantly affect the local distribution or abundance of the species whether in a roost or not

- Damage or destroy the breeding or resting place of a bat
- Possess a bat (alive or dead) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost
- Sell (or offer for sale) or exchange bats (alive or dead) or parts of bats

A roost is defined as being 'any structure or place that is used for shelter or protection', and since bats regularly move roost site throughout the year, a roost retains such designation whether or not bats are present at the time.

Recommendations

Given the presence of foraging bats within the survey site, it is anticipated that the Local Planning Authority concerned will require some mitigation as part of any future development.

No bat evidence was found inside the bungalow or any of the associated outbuildings during survey 24 June 2013.

The following best working practice should be followed;

- All contractors working on the buildings will be briefed on the legal protection afforded to bats and their places of shelter and on how to proceed if a bat is discovered during the course of the work. A procedure to follow in the event of discovering bats on site is provided as Appendix 2. A copy of this will be available on site during the development.

The following conservation measure is suggested for the new building design,

- Bat roosting units (Schwegler type 1FE with back plate) to be incorporated within the design of any new buildings. Example images of these can be found in Appendix 3.

5.2 Birds

Legal protection

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

Recommendations

Despite the building not being used for nesting by species of common birds, any future site clearance work should ideally avoid the active nesting season. If any removal of vegetation commences during the bird breeding season, a search for nests should be carried out before they begin, and active nests should be protected until the young fledge.

All nestboxes attached to buildings to be check prior to removal, and active nests should be protected until the young fledge.

To minimise any potential impact or disturbance to protected breeding birds, any tree clearance should be undertaken outside the bird breeding season, i.e. from late-August and be completed by late February.

If work is to be carried out in the breeding season then an ecologist should be consulted and it is likely that work will have to stop if breeding birds are found in the trees and garden scrubs present. It may be necessary to undertake further more detailed breeding bird surveys immediately prior to the work to search for nests.

Recommended conservation measures – Common garden birds

To mitigate for the loss of potential nesting areas, artificial nest places should be provided, within the new site/development, to include sparrow terrace boxes, traditional wooden boxes and open fronted nest boxes.

Details of nest boxes for house sparrows can be obtained from a variety of charitable organizations and online suppliers.

6 REFERENCES

Altringham, John. 2003. British Bats. Harper Collins New Naturalist.

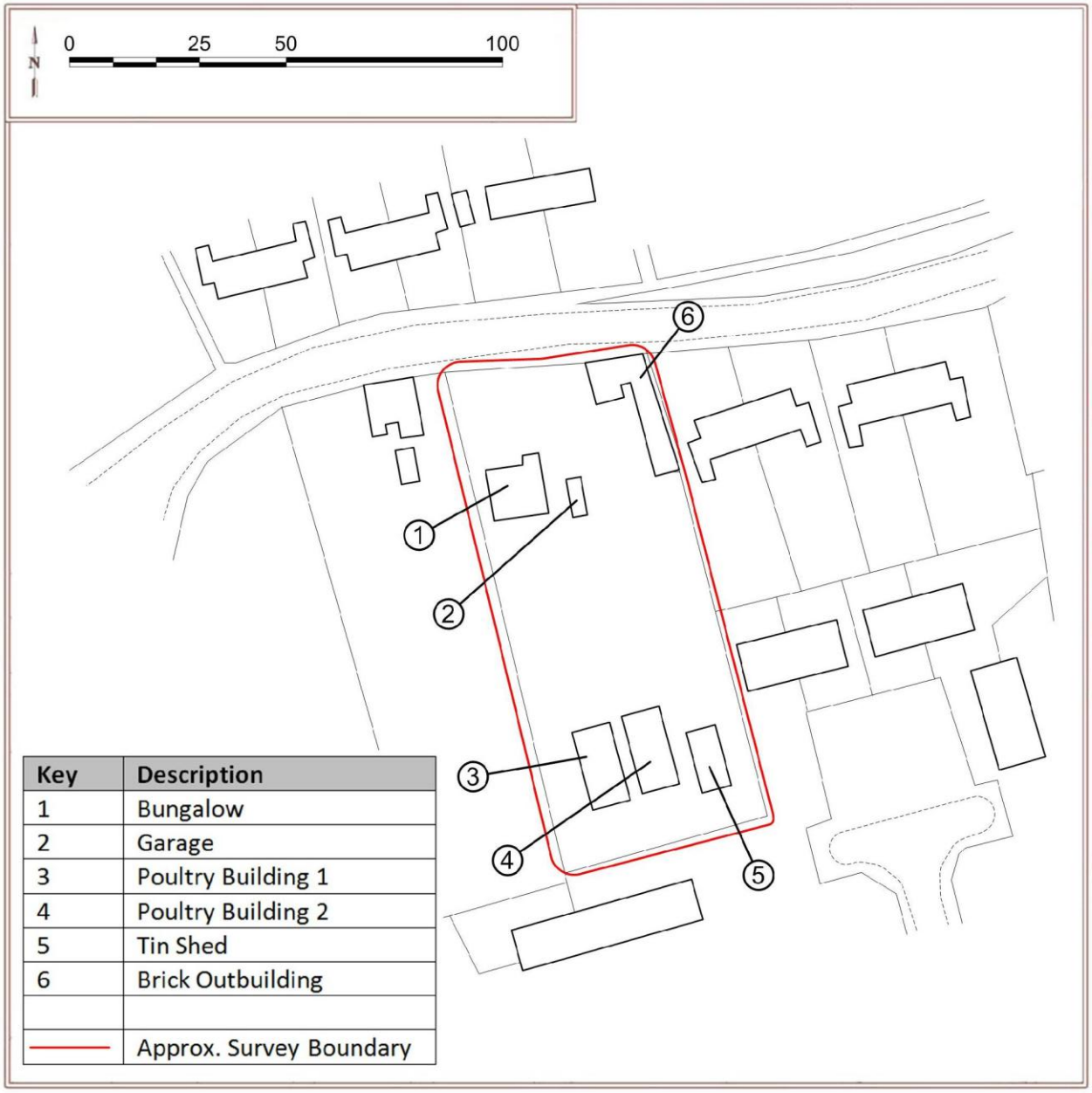
Bat Conservation Trust 2012 ‘Good Practice Guidelines’

Eaton M A et al 2009. *Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man*. British Birds 102, pp296–341.

Mitchell-Jones, A.J. & McLeish, A.P. (2004). The Bat Workers' Manual. JNCC.

APPENDIX 1

FIGURE 1 Site habitat and location map at 17 Greengate Lane



Key	Description
1	Bungalow
2	Garage
3	Poultry Building 1
4	Poultry Building 2
5	Tin Shed
6	Brick Outbuilding
	Approx. Survey Boundary

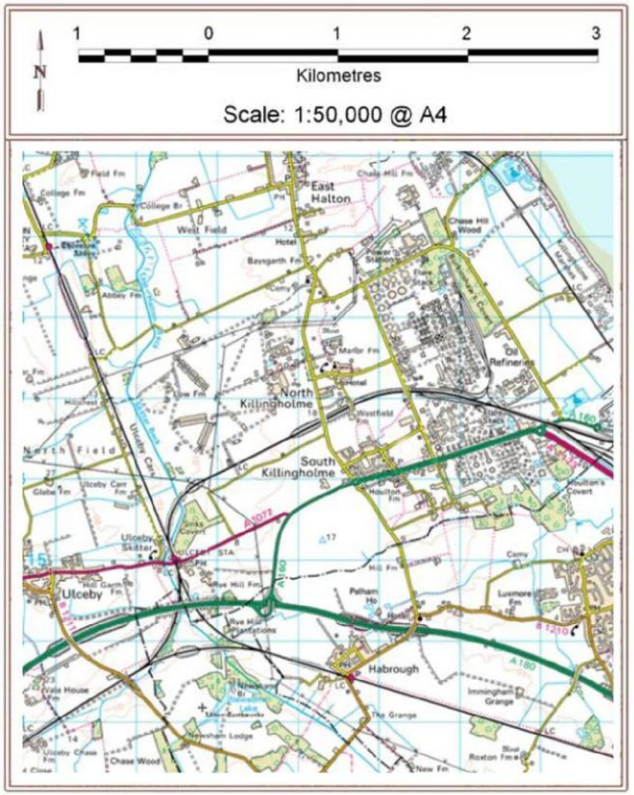


Figure 1. Building layout at 17 Greengate Lane, South Killingholme, North Lincolnshire DN40 3HB

Andrew P. Chick MPhil Ecology
Independent Ecologist and Protected Species Consultant
The Old Farmhouse, Washdyke Lane
Fulbeck, Grantham, Lincs NG32 3LB

APPENDIX 2

Procedure to follow if bats are discovered during works

- If at any point during the works, bats are discovered then contractors must immediately stop work in the relevant area concerned and telephone Andrew Chick 0788 0700313.

- An appropriately licensed bat worker will liaise directly with Natural England. Actions will then be taken following advice given. This may include removal of bats, but only where direct written or verbal permission is gained from Natural England.

- Only when Natural England is satisfied that there is no further risk to bats will works recommence.

- Should it transpire that the operation being carried out is of more risk to bats than was originally thought, then works will be stopped until they can be supervised by an appropriately licensed bat worker.

- If a bat is found under a tile or in any other aperture, works will stop immediately (as above). If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements, leaving a small gap for the bat to escape voluntarily. Any covering should be free from grease or other contaminants, and should not be a fibreglass-based material.

- Any injured bats should be gently placed in a secure ventilated box in a cool, quiet dark place (e.g. cardboard box with a sealed lid) by the contractor while wearing gloves for the bat's protection whilst awaiting the arrival of the licensed person.

APPENDIX 3
Examples of bat roost units and bat access bricks

IBSTOCK
innovators in clay
ideas into action
eco habitats for bats
Eco Habitats for Bats - Technical Data: A
Sizes
215mm x 215mm or 215mm x 296mm
Durability
F2 S2 - Fully Frost Resistant
Eco Habitats for Bats - Technical Data: B
Sizes
215mm x 215mm or 215mm x 296mm
Durability
F2 S2 - Fully Frost Resistant
Eco Habitats for Bats - Technical Data: C
Size
215mm x 65mm
Durability
F2 S2 - Fully Frost Resistant
A
B
C
ideas into action
eco habitats for bats
Features & Benefits
Enclosed bat box (A & B)
• Designed with the Pipistrelle Bat in mind
• Available in all brick types
• Attractive motif
• Discrete home for bats
• Various sizes
• Several roosting zones are created inside the box
• Bats are contained within the Bat Box itself
• Maintenance free as the entrance is at the bottom
• Ideal for new build & conservation work
Free Access Option (C)
• Discrete Single Bat brick
• Easy to install
• Allows bats to create a natural home habitat within the cavity of the building
www.ibstock.com
IBSTOCK
innovators in clay
contact numbers
sales office 0870 903 4010
design advice 0870 903 4018
technical services 0870 903 4017
literature and samples 0870 903 4030