Julian Hall
Environmental Resource Management

HORSE GATE FARM, NORTH END, GOXHILL,

NORTH LINCOLNSHIRE

REPORT ON

ECOLOGICAL SURVEY

FOR

Mr L PEACH

Per:

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A. Introduction

Julian Hall Environmental have been instructed by Mr D Ettridge of Ettridge Architecture Ltd. on behalf of Mr L Peach, of Rowan Lodge, Station Road, North Kelsey Moor, Market Rasen LN7 6HD to carry out an environmental assessment relating to habitation by bat species in the disused farm buildings at Horse Gate Farm, North End, Goxhill, North Lincolnshire DN39 6RL. Verbal briefing was discussed with Mr Ettridge, and site plans supplied.

B. Summary

No direct evidence of habitation by any bat species was detected at the subject premises during a survey carried out on 6 April 2011 or from an emergence survey carried out on 17 May. No habitation by Barn Owls was found.

C. Issues

The buildings are to be subject to a planning application to the local planning authority, North Lincolnshire District Council, for proposals to develop the site as residential accommodation, which will comprise work to refurbish and convert the existing buildings.

Information received from the planning case officer at the local planning authority indicates that the principal issues arising from the proposal regarding species or habitats protected under the above legislation will relate to the presence of Bat species within the building, and the likely impact on their habitat by the proposed work. Nesting birds and the possibility that Barn Owls may be resident will also investigated.

Since bats of all species are protected under the terms of the Wildlife and Countryside Act 1981 (WCA81) as extended and amended by the Countryside and Rights of Way Act 2000, and the provisions of the Conservation (Natural Habitats etc.)Regulations 1994 as amended in August 2007, it is advised that during any demolition or major structural alteration of buildings, and since the indication of possible bat habitation has been pointed out, work should proceed with due caution and existing materials should be removed with care to avoid harming bats that may be hibernating there or using the structure as a roost. Under S.1 of WCA81 nesting birds are also protected, and Barn Owls are protected under Sch. 1 of the Act.

Full details of the method of survey and its findings should be submitted to the local planning authority, and any mitigation measures recommended by the report shall be carried out prior to the work proceeding.

D. Site Description and Proposed Works.

The buildings comprise a two-storey height barn, Building A, (Frontispiece), and two further ranges of single storey buildings, Buildings B&C, all formerly in agricultural use and built in solid 9in. brickwork and clay tiled roofs (Figs.1&2).

Fig.1 Western range. Building C. . Fig. 2 Northern range. Building B.

The property is located around an open yard on the edge of the village of Goxhill, North Lincolnshire, surrounded by domestic gardens, trees, hedges and farm land nearby at Grid Ref: TA105225 at a height of some 5m above sea level. The location within the property is shown as the buildings A, B & C in the site edged red on the site plan attached to this report.

E. Survey Method

A Desk survey will be carried out to record the Conservation Status of the site and the reports of any relevant species in the locality, provided by the Lincolnshire Wildlife Trust.

Since at the time of the initial inspection, bats will be near the end of the hibernation season, when bats will shortly leave the roost in which they have overwintered, there will not yet be any possibility of finding further reliable evidence of their presence as they emerge from any nursery roosting sites by sight or by recording the echolocation signals given by bats in flight while feeding.

Evidence of habitation by Bat species will be examined from evidence of droppings and insect remains, as well as a search for evidence of roosting sites within the roof spaces and masonry of the structures. Holes in the walls that are used by bats for access to the interior may be recognised by signs of grease marks from fur and urine and faecal stains around them. There may also be signs of insect remains dropped by bats under parts of the roof where they may perch to eat them and discard the indigestible wings.

Evidence of habitation by birds will be seen by the presence of nests occupied in previous nesting seasons, or by the presence of Barn Owl roosting places, shown by the presence of pellets regurgitated by the owl containing undigested remains of small mammals

Conclusions resulting from the findings of the survey will provide the basis of recommendations relating to the proposals, together with proposals for measures to mitigate any negative effects that are likely to be caused to the wildlife by the proposed operations involved.

F. Survey Result.

Records provided by the Lincolnshire Wildlife Trust (www.lincsbiodiversity.org.uk)

indicate that there are no Sites of Special Scientific Interest or Local or Lincolnshire Wildlife Trust Nature Reserves in the vicinity of 500m radius of the site. Three Local Wildlife Sites are recorded in the vicinity as follows:

1. Goxhill Pasture, 500m east of the subject site, noted for its value as Scrub and neutral grassland.
2. Goxhill Meadows, 500m north east of the subject site, noted for its value as scrub and neutral grassland.
3. Sykes Lane Meadows, 400m west of the subject site, and of similar interest.

There is one report within the radius of enquiry of an unidentified species of bat in 2003.

Buildings Survey.

The property was visited during the day time of Wednesday 6 April 2011. Weather conditions were sunny, dry and calm, at a daytime temperature of around 11deg.C.

The Barn at Building A is a building of two storey height built in 9in. solid brickwork with a small lean-to extension, possibly former outside earth closet, at the south end. The walls have many holes and potential access points, through doorways and ventilation slots in the walls. Many of the ventilation slots had been blocked with plastic bags. The clay pantiled roof is in its original condition, with no plaster lath or other underlay to the tiles. There is minimal insulation within the roof area, giving poor insulation value for bats, which require a steady temperature for roosting or hibernation (Fig.3). The inside of the roof area is partly covered with undisturbed cobwebs, especially at the roof ridge, which would tend to indicate poor access or low activity by bats or birds within the roof void. The roof ridge is in good condition, with few external holes available for access by bats. The gable walls are built with verges projecting above the roof line, with tiles pointed up at the edge joint.

Fig.3 Roof of Barn A.

Fig.4 South gable and lean-to Building A.

Inspection of the outer surfaces of the walls and the inside of the building showed no evidence of bat droppings or other markings on any of the potential access holes in brickwork or under the roof eaves and gables. There was no evidence of habitation by bats or birds in the small lean-to building. No evidence of habitation by Barn Owls was found.

Building B comprises a range of five small loose boxes for livestock and storage, and a small open fronted garage adjoining Building A. The walls are built in 9in. brick, partly rendered in cement on the inside. The western gable wall is showing signs of collapse, with some potential access holes to the inner spaces of the wall. In some areas there are small holes in brickwork or around window frames that could allow

access for bats into voids behind. Inspection of many of these holes showed no signs of use by bats or birds. Many of the holes were well covered with recent cobwebs. No droppings or other signs of bat habitation were found on any of the surfaces of floor or window cills in this area, although several butterfly wings were found randomly over the floor of the main area of the building. Several Swallow's nests and quantities of bird droppings were seen in the roof and floor over parts of Building B, with potential access through various doors and widows.

The roof is covered with clay pantiles, more recently re-covered and under-drawn with bituminous felt. The inside of the roof area was generally free of cobwebs, including around the ridge area (Fig. 5).

Fig. 5 Interior of roof in Building B.

Fig.6. Interior of roof in Building C.

Building C comprises an open fronted storage shed in traditional construction but with a more modern roof, recently replacing the original structure with new timbers and under-drawn with felt (Fig.6). This building showed no evidence of habitation by bats or birds.

At the north end of the main part of this building a second and smaller set of store-houses is in original condition. No evidence of habitation by bats or birds was found on any of the surfaces or potential access holes in walls or roof.

Trees and hedges, and other old buildings are in the immediate vicinity around the site area, as well as the extensive gardens and paddock behind the house, and these would provide attractive areas for feeding on a plentiful supply of insects, as well as from the surrounding fields. No inspection was made of any of the trees in the immediate vicinity.

Emergence Survey.

An emergence survey was carried out on the evening of Tuesday 17 May. Weather conditions were dry and calm, with a light westerly breeze and 75% cloud cover. Temperature at sunset was 15deg.C. Sunset was at 2110 hrs. The survey commenced at 2045 hrs by two licensed surveyors, using Batbox Duet detectors in Heterodyne and frequency division format and MP3 recorders to record bat echo-location calls for future analysis.

The result of the survey showed that a maximum of two Common Pipistrelle bats *(Pipistrellus pipistrellus)* at 45kHz passed over the buildings at 2113hrs, foraging in the area of the lower level buildings and the paddock behind for a period of 10 minutes. At 2210 hrs the soft call of one Brown Long-eared bat (*Plecotus auritus*) was heard to pass but did not return before the end of the survey at 2215.

No bats were detected by either observer to emerge from any parts of the buildings during the period of the survey, which terminated at 2215hrs.

There were no signs of active habitation by Barn Owls or other bird species in any part of the buildings examined in the survey.

G. Discussion

In addition to the wide range of trees, hedgerows and domestic gardens around the site, the existence of the three notified Local Wildlife Sites in the vicinity will provide good foraging areas for both bats and birds.

The lack of evidence of bats using the subject buildings during either of the survey periods appears to indicate that they are not being used as a breeding colony site, for which the evidence would be shown by the soiling around emergence holes used by bats from the roof space by any of the numerous exit points in the roof and walls. Larger concentrations of droppings would also be seen around exit holes or within the interior spaces of the roof. There was also a lack of insect remains in any significant quantity, such as the wings of moths and butterflies, as left-overs from feeding, especially by Brown Long-eared bats. The discarded wings that were found in Building B could be assigned to birds that bring larger insects inside buildings to eat whilst perched, whereas wings discarded by Brown Long-eared bats tend to be found below the roof ridge only, associated with droppings, and not spread at random.

It is considered that the lack of any evidence of individual droppings indicates that even though bats may be coming to the area around the buildings to forage for insects, there is no current evidence of habitation in the subject building as a nursery or feeding roost by any species.

H. Conclusion and Recommendation

The existence of the three Local Wildlife Sites in the vicinity of the site is not likely to be compromised by the proposed development.

During the survey no specific evidence was found to indicate bats were currently using the buildings for roosting, but the apparent absence of bat roosts or hibernation sites within the structure of the buildings cannot rule out the possibility of the use later in the year of deep crevices by individuals for hibernation, nor the use of the spaces by means of any remaining access points into the roof space for nursing colonies in the spring. The buildings may at any time provide sheltered space for bats to hunt for insects that have gathered there, such as cluster flies, but this is not an indication that bats are roosting there.

It is recommended that should bats be found during future demolition or building operations, work should immediately stop, and the Conservation Officer of Natural England be notified via ourselves, and application made to them for written consent from them to proceed.

In addition, it is advised that during any demolition or major structural alteration of buildings, work should proceed with due caution and existing outer materials, for example roof tiles, felt membranes and timbers, door and window frames, should be removed with care to avoid harming bats that may be using the structure as a roost.

Birds' nests are protected under WCA81 whilst in use, along with adult breeding birds and chicks, so that it is illegal to destroy them or the occupants. Any demolition work should in this case be timed to avoid the bird nesting season, i.e. between April and September. Should alterations be planned for commencement during this period an inspection should be made by a competent observer to ensure no birds are nesting within the buildings. Access by birds into buildings may be prevented by sealing off doorways and windows prior to the start of the nesting season.

Subject to the observations that result from our survey, it is our opinion that there is no major risk that might arise from any proposed development works that represent unacceptable risk of harm to any of the protected species or habitats described, that cannot be adequately mitigated as suggested above.

The above recommendations are made as the basis for a proposal to obtain the release of any conditions imposed in the grant of Planning Consent given for the overall development of the site by the applicant. They form part of the report resulting from the survey carried out on behalf of Mr L Peach, whose sole property the report is.

Signed_____ J J Hall TD BSc Dated_____

Natural England bat Licence No. 2011 1728

Reference:

The Wildlife and Countryside Act 1981	HMSO
Countryside and Rights of Way Act 2000	HMSO
Conservation (Natural Habitats etc.) Regulations 1994 as amended 2007	HMSO
Bat Surveys – Good practice Guidelines 2007	Bat Conservation Trust

BATS AND THE LAW
APPENDIX I

All bats and their roosts are fully protected by the Wildlife and Countryside Act 1981 and the Conservation (National Habitats, etc.) Regulations 1994.

You must not intentionally:

* Kill, injure, catch or keep bats

* Damage, destroy or obstruct bat roosts

* Disturb bats for example by entering known roosts or hibernation sites

* Sell, barter or exchange bats, alive or dead

You must:

* Consult Natural England before you do anything that might affect bats in their roosts. This might include:

* Blocking, filling or installing grills over mines or tunnels

* Building alteration or maintenance work

* Getting rid of unwanted bat colonies

* Removal of hollow trees

* Re-roofing

* Remedial; timber treatment

* Re-wiring or plumbing in roofs

* Treatment of wasps, bees or cluster flies

Remember that because bats return to the same places year after year, a bat roost is protected even if there are no bats there at the time.
The law allows you to tend disabled bats, kill seriously injured ones and disturb bats in the living area of a house.
Other activities, such as catching, ringing or photographing bats or disturbing them while roosting, can be licensed by Natural England provided they are for scientific, educational or conservation reasons.
This explanation should be regarded only as a guide to the law. For further details reference should be made to Sections 9-11, 16-27, and 69 of the Wildlife and Countryside Act 1981.

Information as to the provision of Bat boxes and other aids to habitation by bats can be obtained by contacting a local Bat Group (01482 844800) or by contacting the Bat Conservation Trust (www.bats.org)

Appendix 2.
Site Plan (not to scale)