

Baseline Ecological Impact Assessment

with specific reference to

Bats & Barn Owls

**Buildings at
Lane Ends Farm, Glossop**

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Executive Summary

1. A series of ecological surveys were carried out in respect of bats, barn owls and breeding birds in general, regarding proposals to convert three buildings into a new dwelling (Gamekeeper's cottage). Two of the buildings, a shippon and garage, were found to have low-moderate potential for bat and barn owl roosting as well as potential for use by breeding birds in general. The barn however was found to have high potential for use by bats and breeding birds, including barn owls.
2. During the daytime survey, there was no conclusive evidence of roosting bats or barn owls but the nests of swallows and an unidentified species of songbird were found in all of the buildings inspected.
3. During the night-time surveys, there were no conclusive signs of bat roosting activity and very little other activity such as commuting and foraging, the latter probably due to the relatively exposed situation of the site and general lack of suitable habitat near to the buildings in question.
4. It can therefore be concluded that, assuming adequate precautions as recommended within the report are implemented, there will be no likely impact upon any protected or otherwise important species resulting from proposals to develop the site.

Contextual Statement

This report ***must be read in conjunction with the documentation and drawings prepared by Randfield Associates and submitted to the Local Planning Authority in respect of current development proposals (August 2012)***. The author of this report will accept no responsibility for any misunderstanding resulting from a failure to consult all relevant planning documentation or through any lack of information where responsibility for the provision of such is beyond the control of Cameron S Crook & Associates.

All survey works detailed within the methodology section below have either been carried out personally by the author or by appropriately qualified, licenced and/or experienced surveyors working under the supervision of the author. The author of this report takes full responsibility for the quality of all data collected and any subsequent interpretation. Raw survey data and names of individual surveyors may be provided for *bone fide* reasons, upon request, but only where this is strictly necessary and does not otherwise conflict with client, landowner or surveyor confidentiality and privacy.

This report may not be used for any purpose other than in support of the current planning application (as submitted by Randfield Associates, August 2012) without the prior written permission of Cameron S Crook & Associates.

Cameron S Crook BSc(Hons) MPhil CBiol MSB MIEEM
13th August 2012

Author CV

Cameron S Crook has a Bachelor of Science Degree with Honours in Applied Biology (BSc(Hons)), a Master of Philosophy Degree (MPhil) gained by research into the Ecology and Conservation of Ancient Woodland, is a full member of the Society of Biology entitled to employ the designation Chartered Biologist (CBiol MSB), and a full registered member of the Institute of Ecology and Environmental Management entitled to employ the designation MIEEM.

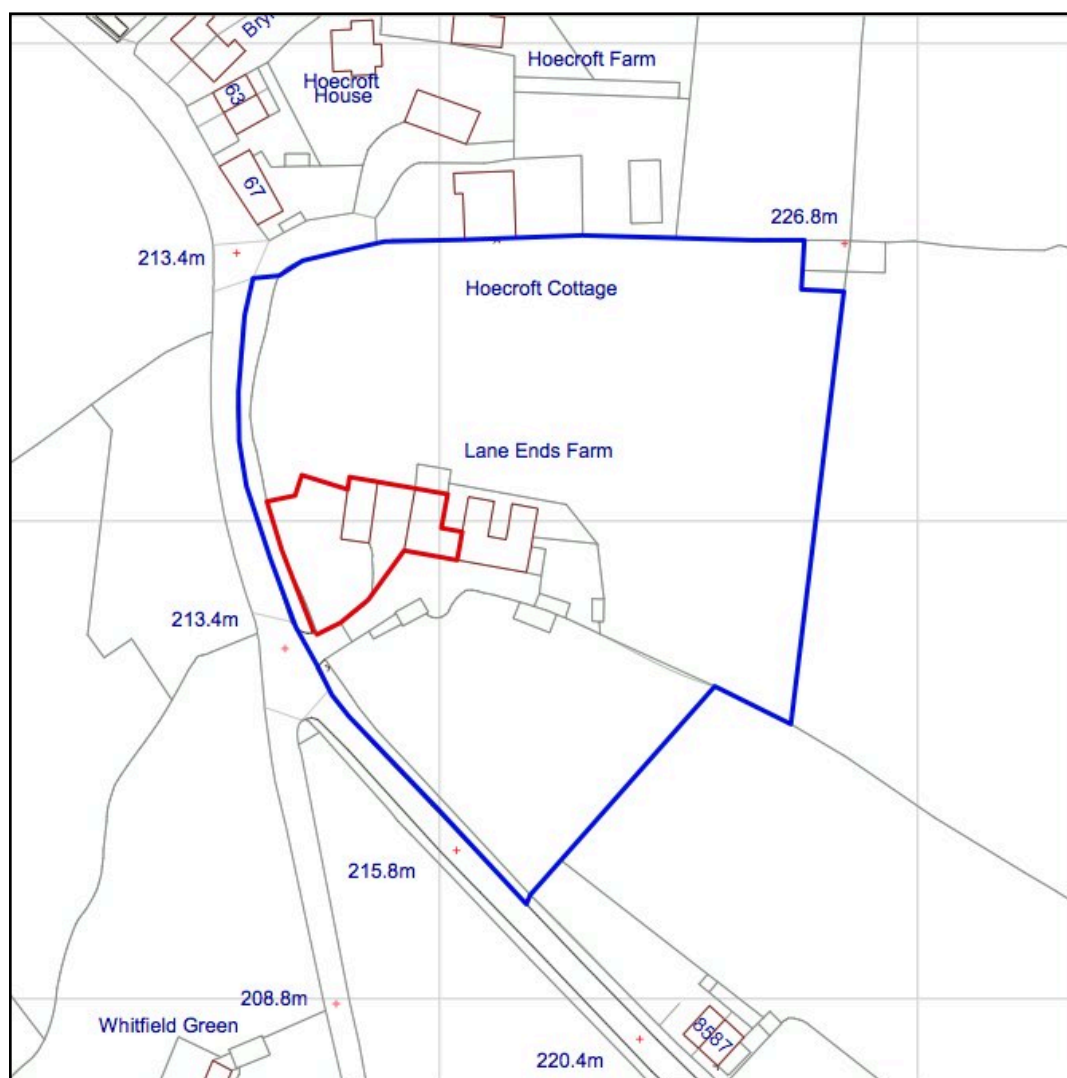
Working as an ecological consultant for over fifteen years, Cameron has been commissioned to undertake ecological surveys and assessments on behalf of public sector clients, voluntary organizations, local wildlife groups and private development organizations throughout the country. He has considerable experience in the ecological appraisal of development sites, assessing impact upon wild plants, animals and habitats, and the production of mitigation schemes. Cameron is an experienced field worker having carried out extensive survey work of habitats and species throughout the British Isles during a period of over twenty years and is fully conversant with regional, national and international environmental legislation.

Prior to working as a private consultant, Cameron was the National Coordinator for the Botanical Society of the British Isles (BSBI) and was formerly employed as Senior Nature Conservation Officer for Cheshire County Council and later for Macclesfield Borough Council where his role was to provide nature conservation and ecological advice to other council officers and departments and other organizations as well as providing assistance with preparation of local and county structure plans and planning policy.

1.0 Introduction

- 1.1 A baseline ecological survey and assessment with particular reference to bats and barn owls, along with a habitat suitability assessment for breeding birds in general, was carried out with respect to buildings at Lane Ends Farm, Hague Street, Glossop. The site location and the buildings in question are shown respectively in Figures 1 and 2 below.
- 1.2 The purpose of the survey and assessment was to determine any likely impact upon protected species that may result from proposals to convert the existing agricultural buildings to a dwelling. The results of an initial inspection indicated that only habitat suitable for bats, barn owls and other breeding birds was present on the part of the site that will be affected by development proposals so more detailed work was confined to a survey for these species only.

Figure 1. Site location (within site edged red)



- 1.3 Details of the methodology with respect to the current survey are provided below. Further details of proposed development works and site layout are provided within respective documentation submitted in support of the respective planning application and this report should be read in that context.

2.0 Methodology

2.1 Bats

- 2.1.1 The survey for bats was carried out in accordance with recommendations in NCC (1987), the *Bat Mitigation Guidelines* (English Nature, 2004) and the Bat Conservation Trust *Bat Surveys: Good Practice Guidelines* (BCT 2012). The survey comprised a single daytime visit carried out on the 25th July 2012 to evaluate the site proposed for development in general (as indicated on the site plan above) and inspect the buildings in relation to potential roosting sites and foraging areas. This was followed by two night-time surveys, one carried out on the morning of the 10th August 2012, the second on the morning of the 13th August 2012.
- 2.1.2 All parts of the buildings proposed for development were inspected during the daytime survey (within the limits of health & safety requirements) to check for signs of roosting bats such as droppings, staining and smells of urine, feeding remains (moth wings) and 'chattering' noises. External parts of the building, in particular the roof, gable ends, fascias, soffits, lintels and any window sills, were examined visually from ground level using high powered binoculars where appropriate. All parts of the building were accessible and no parts of the building where bats could feasibly have been missed remained uninspected.
- 2.1.3 The night-time surveys were carried out by two experienced surveyors using ultrasonic bat detectors (both heterodyne and frequency division) placed at strategic locations to afford good views of all sides of the buildings in question. The objective of the surveys was to check for roost return and record any bat activity around the site. Each survey commenced at one hour and fifteen minutes before sunrise and continued until ten minutes after sunrise. All bat echolocation calls were recorded digitally for later analysis using *BatScan* to confirm species identity.
- 2.1.4 Weather conditions during each of the night-time surveys were optimal: minimum temperatures of 14 & 18C respectively; wind-speed <5kmph on both occasions; relative humidity 85-90%; no rain.

2.3 Barn Owls and Breeding Birds in General

- 2.3.1 This was carried out concurrently with the daytime part of the bat survey, in accordance with the recommendations of Ramsden & Ramsden (1995) and involved an inspection of the buildings in question for signs of droppings, pellets, feathers and nest debris (mainly remains of egg-shells, down and droppings since barn owls do not construct actual nests). Signs of, or the potential, for other breeding birds were also sought and recorded during this part of the survey.

2.4 Legislative Considerations

Bats

- 2.4.1 All British bat species are listed and protected under Schedule 5 of the Wildlife and Countryside Act 1981 and Schedule 2 of the Habitat Regulations 1994 where it is an offence to:
- ◆ Intentionally or deliberately kill, injure or take (capture) bats;
 - ◆ Deliberately disturb bats (whether or not in a roost);
 - ◆ Damage, destroy or obstruct access to a bat roost;
 - ◆ Possess or transport a bat or any part of a bat unless acquired legally;
 - ◆ Sell, barter or exchange bats or parts of bats.
- 2.4.2 Where any bat roosts are affected by a proposed development, a licence from Natural England will be required before any development works can be implemented, irrespective of

whether or not planning consent has been given. However, where no roosts are likely to be affected, no licence from Natural England is required.

Breeding Birds

- 2.4.3 All nesting wild birds, with the exception of certain pest species, are protected under Part 1 of the Wildlife and Countryside Act 1981 and barn owls are specially protected under Schedule 1 of the act where it is an offence to:

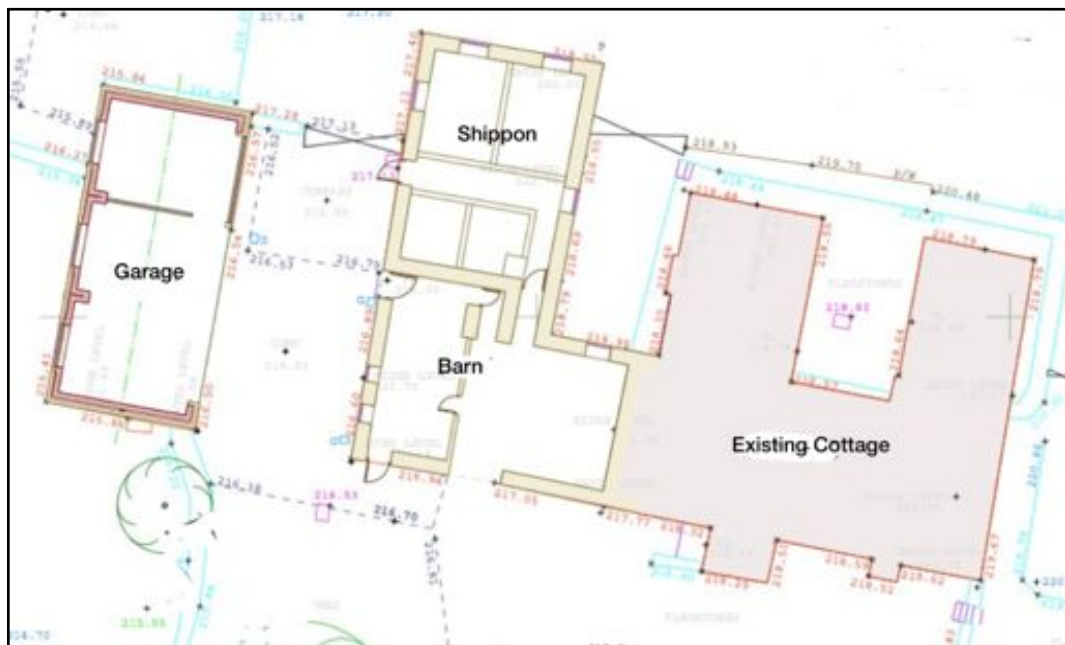
- ◆ kill, injure or take any wild barn owl
- ◆ take, damage or destroy any wild barn owl nest whilst in use or being established
- ◆ take or destroy a wild barn owl egg
- ◆ have in one's possession a wild barn owl or it's egg
- ◆ disturb any wild barn owl whilst establishing a nest or whilst in, on or near a nest containing eggs or young; or, disturb any dependent young of wild barn owls

3.0 Survey Results and Evaluation

3.1 Bats

- 3.1.1 Three buildings are proposed for development comprising a garage, an adjoining barn and a shippin (see Figure 2 below). The existing cottage will not be affected, the roofline and gable end being higher than that of the buildings under survey.

Figure 2. Layout of existing buildings



- 3.1.2 The *Garage* comprises a single-storey stone building with loft platform. There is a corrugated asbestos sheet roof with asbestos bargeboards. There are gaps behind the bargeboards, along the asbestos ridge tiles and at south-facing gable end-cap. The window frames are constructed of UPVC and timber with gaps notable on the west-facing elevation. There are also gaps in some of the stonework but most are too small for use by bats though one or two may be marginally suitable for access. The building has *low-moderate* bat roosting potential.

- 3.1.3 The *Barn* is a relatively large building with a loft that is partway open to the ridge. There is a pitched slate roof adjoining the shippon to the north that is connected by a valley lined with lead flashing. The building also abuts the cottage (which will not be affected by proposals) located to the east. There are multiple gaps and crevices within the ridge tiles, slates and stonework, both inside and outside the building. The roof is supported on old oak beams that have a number of splits and cracks. The roof is lined beneath with bitumen felt. The wooden windows and doors are deteriorating with several gaps notable around the edges. The building has *high potential* for bat roosting and could also be possibly used for hibernation due to the crevices within the walls.
- 3.1.4 The *Shippon* comprises a single-storey stone building with a hayloft. The roof is pitched and clad in corrugated asbestos sheeting with skylights. There is one broken window and one missing pane. The doors and windows are deteriorating with numerous gaps all round. The building has *moderate potential* for roosting bats.
- 3.1.5 There are no large mature trees on site suitable for roosting and the surrounding habitat is generally open and exposed rendering it of limited value for commuting or foraging, although there are a few trees adjacent to the house and within the orchard that are more suitable in that respect.
- 3.1.6 During the night-time surveys, despite ideal survey conditions, very few bats were recorded. There were occasional passes of common pipistrelle around the house and garden but this amounted to no more than five passes in total on each occasion. There were no signs of any bats attempting to enter any of the buildings and no other species of bat were recorded. Based on this and the results of the daytime survey, it is reasonable to assume that the building is not currently used for roosting purposes.

3.2 Birds (including Barn Owl)

- 3.2.1 At the time of survey, there were no signs of current or recent usage by barn owl or any other specifically protected (Schedule 1) species. However there were signs of usage by other species, in particular swallow, with five current nests found including two in the garage and three in the shippon, plus two old nests in the barn, along with an unidentifiable songbird nest

4.0 Conclusion and Recommendations

4.1 Bats

- 4.1.1 Whilst the site is used to a small limited extent for foraging by common pipistrelle, there were no signs of any other species of bat using the site and whilst being suitable for roosting by both crevice-dwelling and void-flying species, the buildings were found *not to be currently used* for that purpose and there were conclusive signs of any recent or previous usage by bats.
- 4.2.2 Given that no signs of bat roosting were found during either the daytime or night time surveys, it is reasonable to assume that proposals to develop the building will have **no adverse impact upon roosting bats** and there will be no appreciable loss of feeding or commuting habitat.
- 4.2.3 However, as the barn is of high roosting potential, it is recommended that initial site works are undertaken during the periods October to November or March to April to avoid any possible impact upon breeding or hibernating bats. It is also recommended that, prior to any works taking place within either of those periods, that a repeat night-time survey is carried out and that, if signs of bats are found, an appropriate mitigation/method statement prepared and implemented.
- 4.2.4 In any event, to avoid any impact upon roosting or hibernating bats, all site works, especially those involving removal of roofing materials or blocking up holes (including the wall cavities) should be undertaken with care and should there be any suspicion that bats may be present, all works in those respective areas should cease and further ecological advice should be sought.
- 4.2.5 To ensure that adequate roosting potential remains following development, as many as possible of the following features should be allowed for in the building design:
- ◆ Roof void dimensions to be at least the 5m x 4m x 2m recommended minimum with access points at the gable ends of the building and beneath ridge tiles.
 - ◆ Roofing felt to comprise traditional bituminous or Hessian materials
 - ◆ To allow bat access to roof space, top slate or tile battens to be placed 20mm from ridge board
 - ◆ Slots of a minimum dimension 30 x 100mm to be cut in roof felt alongside roof boards at two metre intervals along ridge of roof above roosting voids
 - ◆ Gable ends adjacent to roof voids to be fitted with overhanging soffits
 - ◆ Roofing felt to be supported by slates at end of wall to ensure that any roost entrance point is not blocked
 - ◆ Alternatively or in addition to the above, proprietary bat bricks, bat tubes and/or bat tiles to be incorporated into the build

4.2 Barn Owls and Breeding Birds in General

- 4.2.1 The current survey indicates that the building has been recently used by breeding birds but this does not include barn owls or any other specifically protected (Schedule 1) species. Furthermore, barn owls do not appear to currently use the building for roosting purposes.
- 4.2.2 It should however be noted that all birds are protected during the breeding season. Consequently, should there be any delay to development works commencing on site and any birds are later be found to be nesting within the building, or if there is any suspicion that barn owls have commenced roosting in the interim, no dismantling or alteration of the building in question should take place during the bird breeding season (February to July inclusive) or at any time with respect to barn owl, until or unless these areas have first been checked by an ecologist. Should nesting birds or barn owls be later encountered, as a legal requirement, all site works should cease and further ecological advice should be sought.
- 4.2.3 So that there is no net loss of breeding potential and nesting sites for birds in general, a number of proprietary bird breeding boxes should be fitted to trees on the adjacent site (where possible) and swallow cups and sparrow terraces should be incorporated into the new buildings on completion of works.

5.0 References

BCT (2012). *Bat Surveys: Good Practice Guidelines*. 2nd Edition. Bat Conservation Trust, London.

British Government (1994). *Conservation (Natural Habitats, &c.) Regulations 1994*. Statutory Instrument 1994 No 2716 Wildlife, Countryside. HMSO

British Government (1981). *Wildlife and Countryside Act 1981 with Amendments*. HMSO

Mitchell Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature.

NCC (1987). *The Bat Workers' Manual*. Nature Conservancy Council.

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6.0 Photographs

Photo 1. The garage as viewed from the southeast



Photo 2. The garage as viewed from northeast



Photo 3. The shippon as viewed from the west



Photo 4. The shippon as viewed from the north



Photo 5. The barn and shippon as viewed from the northeast



Photo 6. The barn as viewed from the south



Photo 7. Detailed view of crevices within the barn	
Photo 8. Detailed view of crevices within the barn	
Photo 9. Detail of the interior wall and roof of the barn	

Photo 10. The interior of the barn showing the split loft



Photo 11. Detail of the roof beams and rafters within the barn

