

Update to Ecological Survey report

Cloughton Fields, Station Lane, Cloughton, Scarborough,
YO13 0AD



Report date: 13 March 2013



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Record of report and revisions

Date	Details	Compiled by	Checked by
17 January 2010	Original report	John Drewett	John Drewett
13 March 2013	Revised following re-visit	John Drewett	John Drewett

If we collected information about species of plants and animals at, over or near your property during this survey, basic details of these records will be forwarded to the most appropriate local biological recording centre after completion of the survey. As ecologists, we rely on these centres to supply information about the wildlife previously recorded in the vicinity of survey sites in order to assess the significance of survey results in the local context. We feel that it is important to ensure that the data held by these centres is as complete and up to date as possible, in order that we can continue to give the best advice to all of our clients. If you are not prepared to allow the data collected during our survey to be used in this way you must let us know.

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1 Executive Summary

A daytime inspection of the survey site was carried out on 27 February 2013 to update a previous ecological survey carried out in 2009.

The survey site comprises a range of stone barns set in agricultural countryside approximately 500m inland from the North Sea. There are grass fields and arable land nearby. The site includes a pond.

This survey comprised a daytime walkover survey carried out on 27 February 2013. Surveys were previously carried out on 10, 23 & 28 September 2009.

There have been no significant changes to the site since the 2009 surveys, other than that there is no recent evidence of Barn Owls using the site.

Mitigation proposed in 2009 remains appropriate.

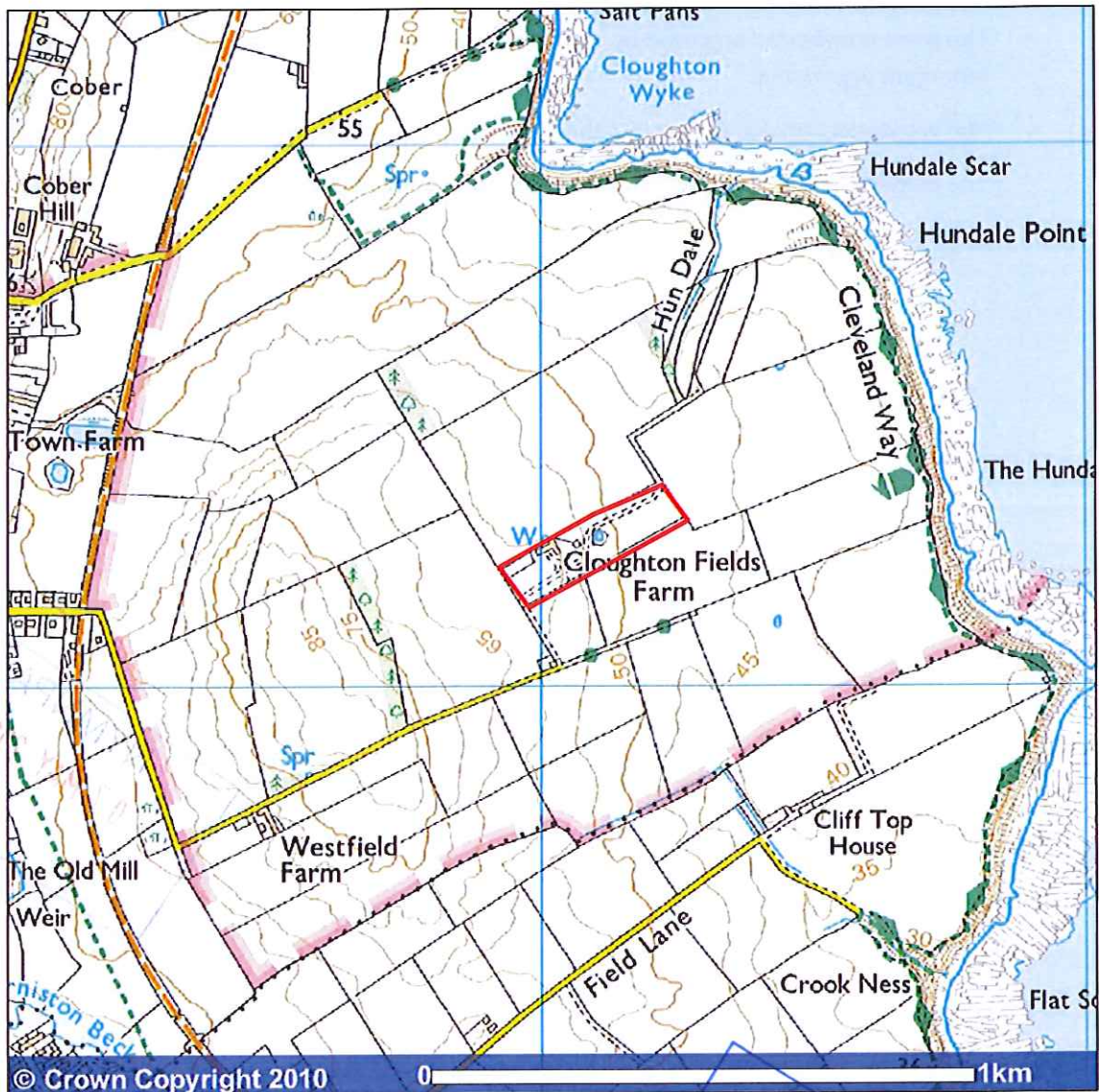
Although no significant changes have taken place at the site since the original survey it is advised that any planning consent should be conditional on a check for Barn Owls and a bat emergence survey being carried out prior to the start of any works. Should that survey identify the presence of any bat roosts then appropriate mitigation (including obtaining a licence, if necessary) advised by the ecologist, must be followed.



2 The survey site

2.1 Location

Site name and address	Cloughton Fields, Station Lane, Cloughton, Scarborough, YO13 0AD		
OS Grid Ref.	TA020942	Altitude	61m
Local Planning Authority	North York Moors National Park Authority		



Location map

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2.2 Habitats

The existing site comprises a large rectangular field bordered by hedges. The existing farm buildings are against the northern boundary of the field about 25% of the way from the west end. Approximately central in the field is a medium-sized pond. The site is in an exposed location and less than 500m from the sea.

The hedges are well established, but predominantly of Hawthorn, *Crataegus monogyna* and species poor. They are highly likely to support nesting birds, although the survey of the site was not carried out in the nesting season, so species using them cannot be confirmed.

The pond is unfenced and used by cattle for drinking, so is very badly poached with little emergent vegetation.

The vegetation among and around the buildings is typical of disturbed and cultivated land.

The field to the north, into which the new agricultural buildings would extend, is arable.



3 Proposed works

All existing buildings at Cloughton Fields would be retained and converted to form a new farmhouse and farm office. New agricultural buildings would be constructed to the west of the existing buildings and a new track, leaving Station Lane on the west side of Cloughton Fields Cottage, passing along the east side of the field to cut through the hedgerow and join the existing access to the south of the new farmyard.

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4 Survey methods

4.1 Desk study

- Consulted the Multi-Agency Geographic Information for the Countryside (MAGIC) website at <http://magic.defra.gov.uk> to check if there are any statutory nature conservation designations relating to the site or nearby.
- Asked North Yorkshire Bat Group for records of bats previously recorded within 2km of the survey site to gather any previous information about bats at the site and to put our findings in the context of existing information.
- Researched the features and habitats of the area through the use of maps and aerial photographs.

4.2 Field work

- Undertook a survey of habitats and landscape features on the site and within 300m
- Examined in daylight each building to record its main features especially those that may be suitable for roosting bats or other protected species.
- Took photographs of the site, its features and any evidence of bats to illustrate the findings in this report.
- Carried out a detailed check of the interior and exterior of buildings to look for bat droppings; feeding remains such as moth & butterfly wings; live bats; dead bats; stains and marks on surfaces indicating regular use by bats; urine marks; and areas devoid of cobwebs.

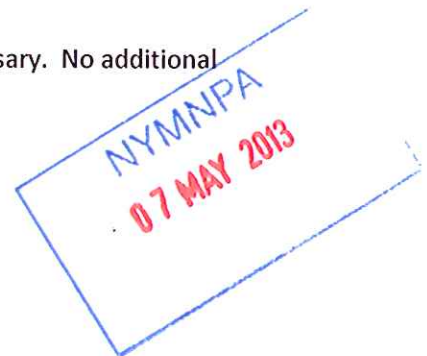
4.3 Surveyors working on the project

Name	Licence No.	Survey date(s)
John Drewett BSc (Hons), MIEEM	20122157	27 February 2013
Val Kirk	20121909	27 February 2013

The background research, analysis and report writing was carried out by John Drewett.

4.4 Equipment used

All surveys utilize a digital camera, binoculars, torches and ladders as necessary. No additional equipment was used in conducting this survey.



5 Existing information

5.1 Designated statutory protected sites

The surveyed property is located within the North York Moors National Park and the Cleveland & North Yorkshire Heritage Coast.

Iron Scar and Hundale Point to Scalby Ness Site of Special Scientific Interest is located approximately 500m to the east.

5.2 Existing records of protected species

The following records of bats previously recorded within 2km of the site were supplied by North Yorkshire Bat Group. This information has largely been assembled as a result of responding to enquiries from the public about bats. Some recent records have also been supplied by consultants carrying out survey work in connection with proposed developments. It does not, therefore, represent a comprehensive assessment of the local bat fauna.

Species	Site	Grid ref.	Date	Comment
Unknown	5 The Limes, Burniston	TA005934	23 Jun 1999	Probably Pipistrelles
Unknown	Moorside, Cloughton	TA0094	05 Sep 2003	Bats disturbed by builders
Pipistrelle species	Low Farm, Burniston	TA010930	13 Mar 2006	Hibernating bat found by builder when old wall dismantled..
Natterer's Bat	Newlands Cottage, Cloughton	TA010959	17 May 2007	Roosting in shed
Common Pipistrelle	Newlands Cottage, Cloughton	TA010959	17 May 2007	Roost under SE corner of house roof
Common Pipistrelle	Newlands Cottage, Cloughton	TA010959	17 May 2007	Several commuting and foraging over site. Mostly arrived from SE
Brown Long-eared Bat	Newlands Cottage, Cloughton	TA010959	17 May 2007	Several feeding under trees in front garden. Arrived from south.
Unknown	Bracken Brae, Wood Lane, Cloughton, Scarborough	TA01219 95396	09 Sep 1987	Evidence found during timber survey work
Brown Long-eared Bat	Brackenbrae, Wood Lane	TA012953	15 Sep 1987	
Pipistrelle species	75 High Street, Burniston	TA013929	07 Jul 2003	Bat roost above bathroom, under floorboards in loft.



Species	Site	Grid ref.	Date	Comment
Noctule Bat	Beck Farm, Burniston	TA014930	24 May 2011	Two passes over site
Common Pipistrelle	Beck Farm, Burniston	TA014930	11 Jun 2008	Large number of bats feeding from sunset. No evidence of roost.
Common Pipistrelle	Beck Farm, Burniston	TA014930	18 Jun 2008	Large number of bats feeding from sunset. No evidence of roost.
Common Pipistrelle	Beck Farm, Burniston	TA014930	24 May 2011	Large number foraging
Soprano Pipistrelle	Beck Farm, Burniston	TA014930	24 May 2011	Single bat recorded
Whiskered / Brandt's Bat	Beck Farm, Burniston	TA014930	11 Jun 2008	Commuting
Whiskered / Brandt's Bat	Beck Farm, Burniston	TA014930	18 Jun 2008	Commuting
Natterer's Bat	Cloughton Fields Farm	TA020942	Oct 2009	Recorded on AnaBat inside main barn
Common Pipistrelle	Cloughton Fields Farm	TA020942	Oct 2009	Recorded on AnaBat inside main barn
Pipistrelle species	Cloughton Fields Farm	TA020942	10 Sep 2009	In main barn
Myotis bat sp.	Cloughton Fields Farm	TA020942	10 Sep 2009	Flying inside main barn. Possibly Natterer's.

5.3 Previous survey results

The 2009 survey found evidence of casual roosting by individual bats in the main barn.

There was only limited bat activity along existing hedgerows on this exposed site, although the site was considered likely to become more attractive to bats as a result of the proposed development.

A Barn Owl was resident in the main barn and there was the possibility of breeding.

Hedges on the site were considered likely to support nesting birds during the season.

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6 Changes since previous survey

6.1 Buildings

All buildings present at the time of the previous survey are still present and are in a similar condition. No works have been carried out to the buildings other than the digging of test pits in each building to assess the foundations.



Underside of roof of main barn, 27 February 2013





Example of test pit to check foundations



Aerial photograph of the buildings

Cloughton Fields Farm

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6.2 Bats

As with the previous survey, no bats, bat droppings, feeding remains or other evidence of bats was found in any of the buildings. All of the buildings contain some crevices in the walls and have gaps in the roof which gives them some bat roost potential. The main barn (B9) is considered to have high bat roost potential and the detached barn (B11) to have medium bat roost potential. B10 has low bat roost potential and B12 has no bat roost potential.

During the previous surveys two evening bat activity surveys and an Anabat detector revealed use of B9 by bats on a casual basis. No roosts were located at that time. During the current survey no bat activity surveys were carried out due to the season at which the visit was made.

6.3 Barn Owls

Two old Barn Owl pellets were found inside the main barn (B9). This is fewer pellets than were present at the time of the previous survey. No Barn Owls were seen during the visit in any of the buildings. Barns B9 and B11 are considered to be suitable for Barn Owls.

6.4 Other species and habitats

The pond to the east of the barns was very full compared to the water levels during the previous survey, but the water was extremely muddy. There is now a little emergent vegetation. There were no signs of water vole and the habitat was considered unsuitable for great crested newt and otter due to disturbance from cattle and waterfowl.



Pond, 27 February 2013

7 Assessment

7.1 Constraints on survey information

This survey was conducted during February. At this time of year bats are generally hibernating. This prevents bat activity surveys being carried out which can result in bat roosts in confined crevices being overlooked.

7.2 Summary of survey findings

The survey site comprises a range of traditional farm buildings located on farmland about 500m from the North Sea.

During surveys undertaken in 2009 a Barn Owl was found to be resident in the main barn and small numbers of individual Common Pipistrelle and Natterer's bats were recorded flying at the site. No bat roosts were located. The pond, which is within a field used for grazing livestock had no emergent or floating vegetation and so was considered unsuitable for use by protected species.

The current survey found no significant changes to the site from its condition at the time of the previous survey. There is no recent evidence of use by Barn Owl, though the buildings would appear to remain suitable. No evidence of bats was found in the buildings though, because the survey was undertaken in winter, bat activity surveys were not carried out. Water levels in the pond were high and there were a few clumps of rushes present, but the water quality appears to be similar to before.

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8 Recommendations and mitigation

8.1 Further survey requirements

As there have been no significant changes to the site from the previous survey it is considered reasonable to assume that similar considerations regarding the ecology of the site still apply and so determine the planning application. However, it is advisable to condition that a Barn Owl survey and bat emergence survey be carried out prior to the start of any works in order that any subsequent changes to the fauna can be assessed and appropriate mitigation measures be put in place.

8.2 Mitigation measures

8.3 Barn Owls

8.3.1 Introduction

Barn Owls are very faithful to their roosting and nesting sites and those forced to abandon these favoured sites are less likely to survive. The aim should always be to keep the birds on-site whilst the development takes place. A well designed nest box is ideal. In addition, a new permanent nesting place must be provided inside one of the developed buildings, ideally the main barn.

8.3.2 General mitigation

Immediately prior to the start of works a re-survey of the buildings must be carried out to ensure that Barn Owls have not begun nesting. Disturbance to Barn Owls is illegal during the nesting period.

Development works on the main barn must not commence between 1 March and 31 August unless Barn Owls are shown to no longer use the site and/or temporary provision has already been provided, or at any time while Barn Owls are nesting within the building.

A deep nest box should be erected within 200m of the main barn at least 30 days before work begins and this alternative provision must remain available to the birds until at least 30 days after work is completed. This should be located in a building, tree or on a pole. In view of the lack of trees in the immediate area, a box on a pole would seem the best solution.

Permanent nesting provision for Barn Owls should be incorporated at the west gable end of the main barn.

8.3.3 Pole box

A pole box is large and heavy and cannot be adequately supported on a thin or flexible pole. A good pole will not only support the box for many years, but will also be strong enough to take the weight of someone climbing a ladder leaning against it. Most proper electricity or telegraph poles are suitable, but must be cut to the correct length. The erected pole should be at least 4m above ground level, so the complete pole needs to be 6m long and 150mm in diameter.



The basic box should be built using exterior grade rot-resistant or CCA treated sheet material. 12mm tannalised softwood ply and 25 x 50mm tannalised batten is ideal. There is also a small amount of 50 x 50mm timber and a piece of 18mm ply needed. During construction a waterproof sealant should be applied to all the wood joints to increase weather protection. The roof should also be treated with Creosote or other water-resistant preservative and the apex covered with a strip of aluminium or copper. The front, back and sides must overhang the floor and a 20mm diameter drainage hole should be drilled in each corner of the floor. There should be a large access panel to enable debris to be cleaned out.

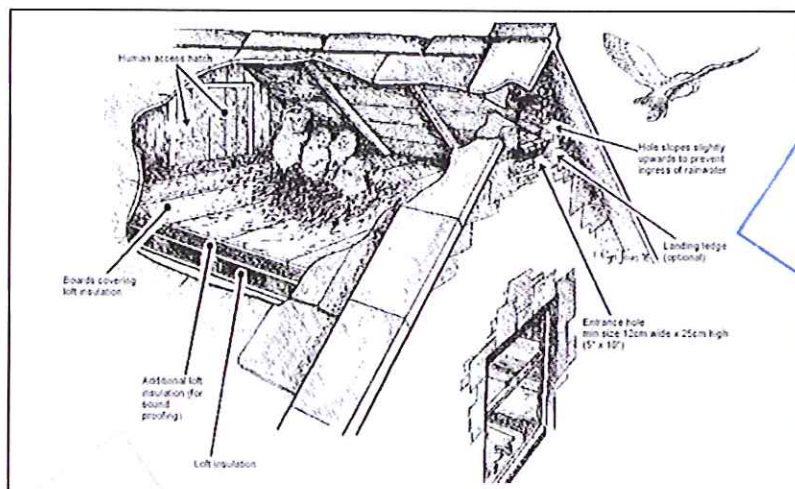
The box should face open ground and preferably be close to rough grassland. Avoid facing the box towards the prevailing wind and rain. The simplest option is to attach the box to the pole before it is erected. Each half of the exercise platform should be slid onto the box after erection and retained by screwing through the two outer battens.

8.3.4 Incorporating nesting provision in main barn

A permanent barn owl loft should be created above the proposed tack room in the main barn.

The entrance must be at least 3m above the ground and the higher the better. The entrance hole should be incorporated into the gable end of the building and needs to be 130mm wide x 250mm high. An external landing platform must be incorporated into the outside wall below the entrance hole. The floor of the nest chamber behind must be at least 1m². The distance between the bottom of the entrance hole and the floor of the nest chamber must be at least 460mm.

The interior must remain dry during prolonged heavy rain and human access for cleaning out (every three to four years) should be incorporated, such as a locked door into the interior of the building. The nest chamber should be substantially constructed and well insulated against noise and condensation.



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8.4 Bats

8.4.1 Introduction

As no evidence of a significant roost was found on the site, a European Protected Species licence is not required. Some evidence of use by individual bats was found, so mitigation is necessary. The method statement must be followed in full.

Whilst there is currently minimal potential for conflict between bats and a wind turbine at the site, the creation of the new farmyard and associated planting is likely to increase this risk. Foraging bats are likely to be attracted to the new animal housing to feed on insects and to the new planting for feeding, commuting and shelter. The siting of the proposed turbine in this area therefore poses a potential developing and future risk to bats. Ideally the turbine would be relocated at least 50m from field boundaries in the field to the north of the existing buildings.

8.4.2 Bat mitigation method statement

Procedure if bats are found

If bats are found during works all work in the immediate area MUST STOP. Advice must be obtained before continuing by contacting John Drewett on 01677 451886 or via the national bat helpline on 0845 1300 228.

If bats have been exposed and have not flown off, gently re-cover them taking particular care not to crush them.

Repair or replacement of roofs

During repair or replacement of roofs special care must be taken to ensure that any bats present are not injured or killed. Roof slates (especially at the ridge and eaves) must be lifted vertically and the undersides checked for the presence of bats. If any bats are found work in that area must stop until further advice is obtained.

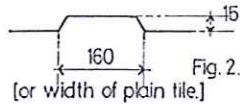
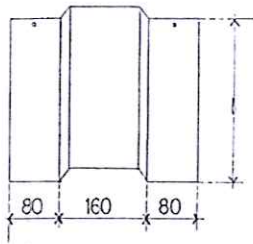
Repairs or replacement of roofs must not commence between 15 April and 15 September.

Timber treatment

If timber treatment is necessary this must be done at the same time as other roof works. Timber treatment chemicals can be harmful to bats so only 'bat-friendly' products based on permethrin or cypermethrin may be used. Even these can harm bats which come into direct contact with them, so a careful check must be made for bats before spraying begins. If bats are present spraying must not take place.

Providing bat access to roof

During the course of roof works existing bat access and casual roosting points may be lost, so new ones must be created. This can most easily be achieved by the inclusion of 'bat access slates' in the roof above the loft space over the proposed tack room. A minimum of four bat slates must be provided at the ridge.



Original size of lead:
250x350mm. approx.

Bat access slates cannot be purchased, but can be quickly made from a piece of lead. The lead must be at least Code 6 quality, as the use of a lower code will soon sag. A 300mm square of lead is sufficient to make one slate. The 'slate' should be hammered into shape to the dimensions shown by moulding it over a piece of wood.

On a profiled tile roof the bat slate can only be fitted under the ridge tiles, as shown in the diagram.

The bat slate must be fitted against a rafter to enable bats to crawl in and out of the loft space and a small hole must be cut in the felt immediately beneath the access slate.

Roof membranes

Modern breathable membranes are unsuitable for use in bat roosts because the surfaces may either be too slippery for bats to cling to, or bats may become entangled in fibres & die as the membrane becomes worn. Traditional bituminous type felt must be used in the roof space above the tack room. It is important that insulation is not fitted to the underside of the roof in this area as this will adversely affect the thermal properties of the roof space.

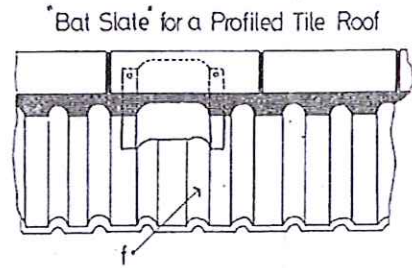
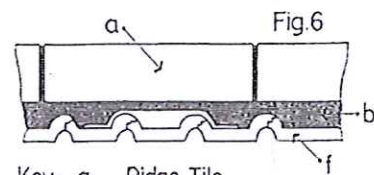


Fig. 5



- Key: a Ridge Tile
 b Mortar
 c Plain Tile
 d Slate
 e Modified Ridge
 f Profiled Tile

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9 Background information and references

9.1 Bats: Legislation and policy guidance

Bats and their roost sites are protected by the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). This protection applies at all times, even if the bats are absent at the time that an activity is carried out.

Although many surveys are undertaken because Local Planning Authorities must consider the impact of a development on protected species during their decision making, it should be noted that bats and their roosts are protected, whether or not a survey has been requested, and that ignorance of the presence of bats is no defence against prosecution. Fines of up to £5000 and a six month prison sentence can be imposed for each offence.

Among other things it is an offence to:-

- Deliberately capture (or take), injure or kill a bat
- Deliberately disturb bats where the disturbance is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young or
- Deliberately disturb bats which is likely to impair their ability in the case of hibernating or migratory species, to hibernate or migrate
- Deliberately disturb bats, in particular any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong
- Intentionally or recklessly disturb any bat while it is occupying a structure or place which it uses for shelter or protection
- Intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection
- Damage or destroy a breeding site or resting place of any bat

The National Planning Policy Framework 2012 recognises that the planning system should perform an environmental role – contributing to protecting and enhancing our natural, built and historic environment. This should include “moving from a net loss of bio-diversity to achieving net gains for nature”. Planning should “promote...recovery of priority species populations”. Paragraph 119 states that “if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused”. This section also states that “opportunities to incorporate biodiversity in or around developments should be encouraged”. Significantly, paragraph 119 states that “The presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined”.

Where it is proposed to carry out works which will have an adverse impact on bats or on a bat roost, a European Protected Species (EPS) licence must first be obtained from Natural England,



even if no bats are expected to be present when the work is carried out. Granting of planning permission does not override this requirement.

Bat conservation is also part of the biodiversity action plan process. The Convention on Biological Diversity, signed in Rio de Janeiro in 1992, requires states to develop national strategies and to undertake actions aimed at maintaining or restoring a wide range of biodiversity.

In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, "to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity". It notes that "conserving biodiversity includes restoring or enhancing a population or habitat". Local authorities frequently require protected species surveys to be submitted with planning applications so that they can fully take conservation into account in their decision making.

An EPS licence application requires details of the proposed works, the bats which may be affected and the mitigation proposed to maintain the favourable status of bats in the region. The application is usually drawn up on behalf of the client by a specialist ecological consultant. The consultant is required to check that work is proceeding in accordance with the method statement and to also carry out monitoring of the impact on bats for some time after completion of the works – the length of monitoring is dependent on the species, development and expected impact of the development on protected species. Natural England aims to make a decision on licence applications within 30 working days of receipt. There is no guarantee that a licence will be granted and there is no fast track process to obtaining one. Applications can only be made once planning permission has already been obtained (where appropriate).

EPS licences can only be issued if Natural England is satisfied that there is no satisfactory alternative to the development and that the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

9.2 Brief summary of bat biology

Bats are the only mammals to have developed powered flight. They are the second largest group of mammals in the world, with almost 1000 different species. In Britain 17 species occur, with the range of species declining towards the north. All British bats feed solely on invertebrates.

British bats live in crevices in trees, caves, buildings, bridges, tunnels and other structures. They are long-lived animals which use roost sites to which they return year after year. In summer females are usually colonial, each species gathering together in warm maternity roosts to give birth to their single young. Males often spend the summer alone or in small groups. Several different roosts may be used over a year, the bats moving between these places depending on time of year, prevailing weather and other conditions.

In winter bats hibernate, a process of long periods of deep torpor punctuated by regular arousals. Their body temperature falls close to the ambient temperature of their chosen hibernaculum and

Cloughton Fields Farm



their heart rate and metabolism drop dramatically. In this state they use little energy, allowing them to survive until spring on their fat reserves. They are very sensitive to temperature changes at this time. Changes may cause them to wake, a process which uses considerable energy reserves. Many species hibernate in cool, stable underground sites such as caves and tunnels, although individual bats may be found in almost any small crevice. Summer roosts and hibernation sites for the same bats are normally located in different places.

For more than 50 years bats suffered a major decline. The reasons are many and varied, but include destruction of roost sites, a reduction in insect prey and direct and indirect poisoning from toxic chemicals. As a result of greater protection, some are now doing better, but they are still vulnerable and threatened.

The survival of a colony of bats depends on there being a range of suitable summer roost sites, hibernation sites and feeding areas within a reasonable distance. Deep crevices in which they can roost, woodland, hedgerows and freshwater nearby all help to provide the conditions and food they need. A continuous linked network of good habitat provides ideal conditions. Some species will follow hedgerows and woodland edges and rivers where their food is concentrated whilst others fly higher and largely ignore features on the ground. Almost anywhere, even city centres, will be visited by bats at some time.

Each species of bat is different in the places it roosts, the food it eats, how it hunts and what it requires. That is just one reason why a bat survey must identify the species and numbers of bats present on a site, their roost locations, access points, feeding areas, etc., before determining any mitigation necessary.

9.3 References

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- Dietz C, Helversen O & Nill D (2009) *Bats of Britain, Europe & Northwest Africa*, A&C Black
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