

Port 1 copy
08/87

WOLD ECOLOGY

Chris Toohie
4 Mill Street, Driffeld,
East Riding of Yorkshire. YO25 6TS



Richard Baines
5 Coastguard Cottages, Flamborough,
East Riding of Yorkshire. YO15 1AW

woldecology.co.uk

Church Farm Staintondale.

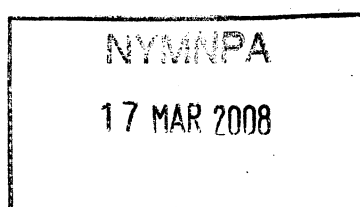
Bat Survey, February 2008.

NYMNP
17 MAR 2008

	Staff Member	Position
Surveyor.	Chris Toohie M Sc., MIEEM	Ecologist.
Report prepared by.	Chris Toohie M Sc., MIEEM	Ecologist.
Authorised by.	Chris Toohie M Sc., MIEEM	Project Manager.
Notes.	This report contains sensitive information concerning protected species and caution should be exercised when copying and distributing to third parties.	

Table of Contents.

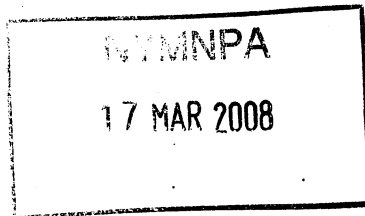
1.0	INTRODUCTION	3
2.0	SURVEY AND SITE ASSESSMENT	4
2.1	Pre-existing information on bats and survey site	4
2.2	Status of bats in Yorkshire	4
2.3	Objective of the survey	5
2.4	Survey area	5
2.5	Habitat description	5
2.6	Field Survey	5
2.7	Results	6
2.8	Interpretation and evaluation	7
2.9	Maps of the survey area	8
2.10	Photographs of key features	9
3.0	IMPACT ASSESSMENT	12
4.0	MITIGATION	12
5.0	SUMMARY	14
6.0	REFERENCES	14
7.0	APPENDICES	15
7.1	Background to bats	15
7.2	Significance of Bat roosts	18
Table 2.2	Status of bat species in Yorkshire	4
Table 2.6.1	Daytime assessment weather conditions	6
Table 2.7.1.	Summary of daytime search for bats	7
Table 7.2.1	Appraisal of significance of bat roosts	18
Table 7.2.3	Status of bats	19



1.0 INTRODUCTION

1.1 Background Information

- 1.1.1 In February 2007, Wold Ecology was commissioned by Colin Bird to undertake a bat survey at Church Farm, (approximate National Grid Reference SE 987 989) Staintondale in North Yorkshire (see 2.9.1: Site Location Plan).
- 1.1.2 The survey focused on two adjoining buildings within the farm complex. The proposed work will involve the immediate demolition of the granary and the re roofing and development of the store into residential properties. A bat survey is required as part of the planning application process.
- 1.1.3 The survey involved a daytime survey of the buildings to assess the presence and likelihood of usage by bats.



2.0

SURVEY AND SITE ASSESSMENT

2.1 Pre-existing information on bats at the survey site.

2.1.1 Currently there is no pre-existing information on bats on the site. Data for the 10km grid square SE99 and TA09 shows records of brown long-eared *Plecotus auritus* and Pipistrelle *Pipistrellus spp.* (NBN Gateway 2008).

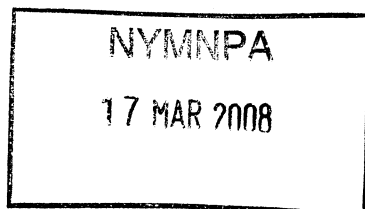
2.2 Status of species present in Yorkshire

Table 2.2 highlights the regional and national status of bat species present in Yorkshire.

Table 2.2 Status of Bat species in Yorkshire

Bats	UK Distribution	Yorkshire Distribution
Common Pipistrelle	Common & widespread	Common & widespread.
Soprano pipistrelle	Common & widespread	Less common than common pipistrelle but fairly widespread.
Brown-long eared	Widespread	Widespread.
Noctule	Widespread (except in Ireland)	Widespread.
Daubentons	Widespread	Widespread.
Natterers'	Widespread (except N & W Scotland)	Present
Brandts	England and Wales	Few confirmed records.
Whiskered	England, Wales, Ireland & S Scotland.	Present.
Leisler	Widespread throughout the British Isles, except N Scotland.	Rare (locally common in West Yorkshire).
Barbastelle	England, rare.	No records since 1950's.

Source - <http://www.yorkbats.freeserve.co.uk/bats.htm>



2.3 Objective of survey

In order to fulfil the brief, the site was visited and assessed on 19th February 2008. This was in order to determine whether the buildings on site were occupied by bats. The work involved the following elements:

- An on site daytime inspection survey on for actual and potential bat roosts and usage.
- An assessment of the on-site potential for bats and the likelihood of their presence. Offer a non-technical summary of the legal implications behind bat presence.
- Report the findings of the field survey work and identifies recommendations for potential mitigations required to ensure a comprehensive assessment is undertaken.

2.4 Survey area

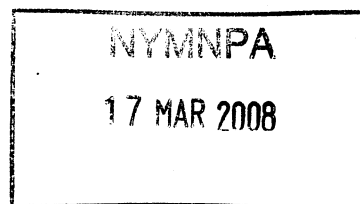
2.4.1 The survey area targeted two adjoining buildings within the farm complex, both buildings were built in 1951 (2.9.2 and 2.10).

2.5 Habitat description

2.5.1 Church Farm lies within the boundary of the North York Moors National Park. Harwood Dale forest and the North Sea lie within 2 km of the study. The forest lies to the west and sea to the east. Staintondale lies in a rural location, with the farm situated to the north of the village.

2.5.2 A summary of the surrounding habitat is as follows (radius of < 2km from the site):

- Buildings – old/modern farm buildings and residential properties.
- Hedgerow – fragmented.
- Mature trees and woodland.
- Arable.
- Churches and graveyard.
- Grazed pasture.



2.6 Field survey

2.6.1 Daytime Survey

2.6.1.1 The daytime assessment identified whether the area had any signs of residency and/or bat usage. This took the form of a methodical search, both internally and externally, for actual roosting bats and their signs. Specifically, the visual survey involved:

- Assessment for droppings on walls, windowsills and in roof spaces;
- Scratch marks and staining on beams, other internal structures and potential entrance and exit holes;
- Wing fragments of butterfly and moth species underneath beams and other internal structures;
- The presence of dense spider webs at a potential roost can often indicate

their absence and;

- Assessment of crevices and cracks in the buildings to assess their importance for roosting bats.

2.6.1.2 Timing

The daytime assessment survey conducted at 11.30. The duration of the survey was 1 hour.

2.6.1.3 Personnel

The daytime survey was conducted by Chris Toohie, who is an experienced bat surveyor.

2.6.1.4 Weather conditions

Table 2.6.1 Weather Conditions

Climate	Survey Duration	
	Start	Finish
Time	1130	1230
Wind speed	<5mph	No change
Wind direction	SW	No change
Rainfall	None	None
Cloud cover	None	No change
Temperature	1°C	1°C

- 2.6.1.5 An emergence survey was not deemed appropriate because average temperatures for January and February did not exceed 8°C, with average night time temperatures below 2°C, therefore bats are hibernating and inactive.

2.7 Results

2.7.1 Daytime Survey

2.7.1.1 The Granary.

The granary is in a poor state of repair and comprises a corrugated asbestos pitched roof that has partially collapsed. The external sides comprise a combination of wooden boarding, corrugated iron and breeze blocks, all of which are in a poor state of repair. The north facing gable is open. The smooth sawn timber frame is devoid of any cracks/crevices and is thick with dust. The building has an open nature and consequently, it is quite cool and breezy suggesting that it is subject to fluctuating temperatures and climates. Breeze block walls and corrugated iron provide internal partitions. There were no signs of roosting bats or bat activity inside the building (see 2.9.2 layout plan; and 2.10 figures 1 - 3).

2.7.1.2 The Store.

The single storey store is in much better condition than the granary and comprises white stone walls with a sloping asbestos roof that faces east. The roof has numerous skylights that allows plenty of light into the building, some of which are missing. The walls are in good condition with no gaps in the mortar or brickwork. The timber roof support on the east facing wall has gaps behind the guttering but these are full of cobwebs and debris. Openings along the wall allow additional light to the skylights and provide cool and breezy internal conditions.

NYMNP

17 MAR 2008

Internally, the store is divided into compartments by breeze block and plywood walls. The asbestos roof sheets and walls are tight fitting and devoid of gaps or access points. The walls have been whitewashed and clean, consequently the interior is very light. Smooth sawn timber beams are free of cracks except at the junction between the wall and beam. There are also some cracks and gaps in the brickwork although all of the aforementioned are full of cobwebs and debris. The store is currently used for storage and will be re-roofed as part of the development proposal. There were no signs of roosting bats or bat activity inside the building (see 2.9.2 layout plan; and 2.10 figures 4 - 8).

Table 2.7.1 Summary of Daytime Search for Bats

Building.	Details of search results.	Current assessment of probability of bat roost present.
Granary	Derelict, draughty and open nature. No signs of bat activity were detected.	Low
Store	Very light, few cracks/gaps and cobwebs present. High levels of use. No signs of bat activity were detected.	Low

2.8 Interpretation and evaluation

2.8.1 Presence/absence

2.8.1.1 No signs of bats were recorded during the survey.

2.8.1.2 Currently, from the data collected during one visit, the likelihood that bats are present at the granary and store is low. This is supported by the fact that the granary is in a very poor state of repair, the store is well used and the daytime assessment detected no signs of bat usage or activity and very little potential to support roosting bats.

2.8.2 Site Status Assessment

2.8.2.1 The surveyed buildings at Church Farm have a low probability of bat interest (see section 7.2.4.1). It is highly unlikely that the property supports or, in its current condition, has the potential to support a bat roost.

2.8.2.2 Although February is an optimum time of year to conduct hibernation bat surveys, it is extremely difficult to detect bats as they are usually tucked away deep in wall cavities and crevices where winter temperatures are more stable. The conditions needed by bats for hibernation require the maintenance of a relatively stable, low temperature (2 – 6°). Suitable sites include; old trees, caves, cellars, tunnels, and icehouses, however species such as pipistrelle bats are likely to be detected in deep crevices on the sheltered external walls of buildings at higher winter temperatures. Following close inspection of the buildings, it is unlikely that they support hibernating bats due to the lack of suitable roosting habitat.

NYMNP
17 MAR 2008

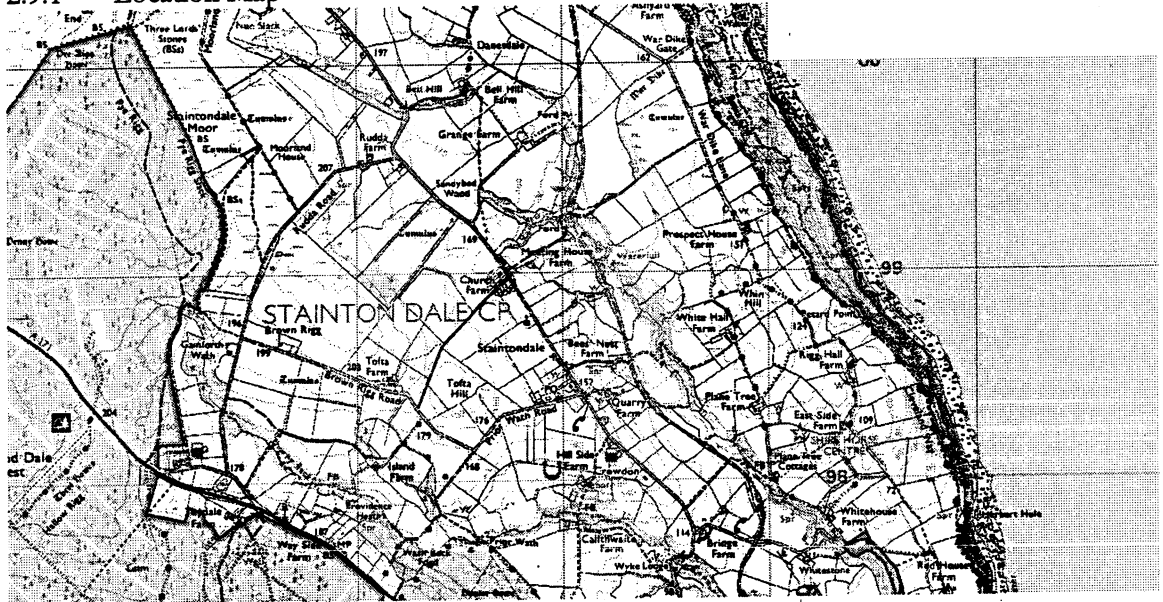
2.8.3 Constraints

2.8.3.1 Evidence of bats may have been removed by winter weather conditions.

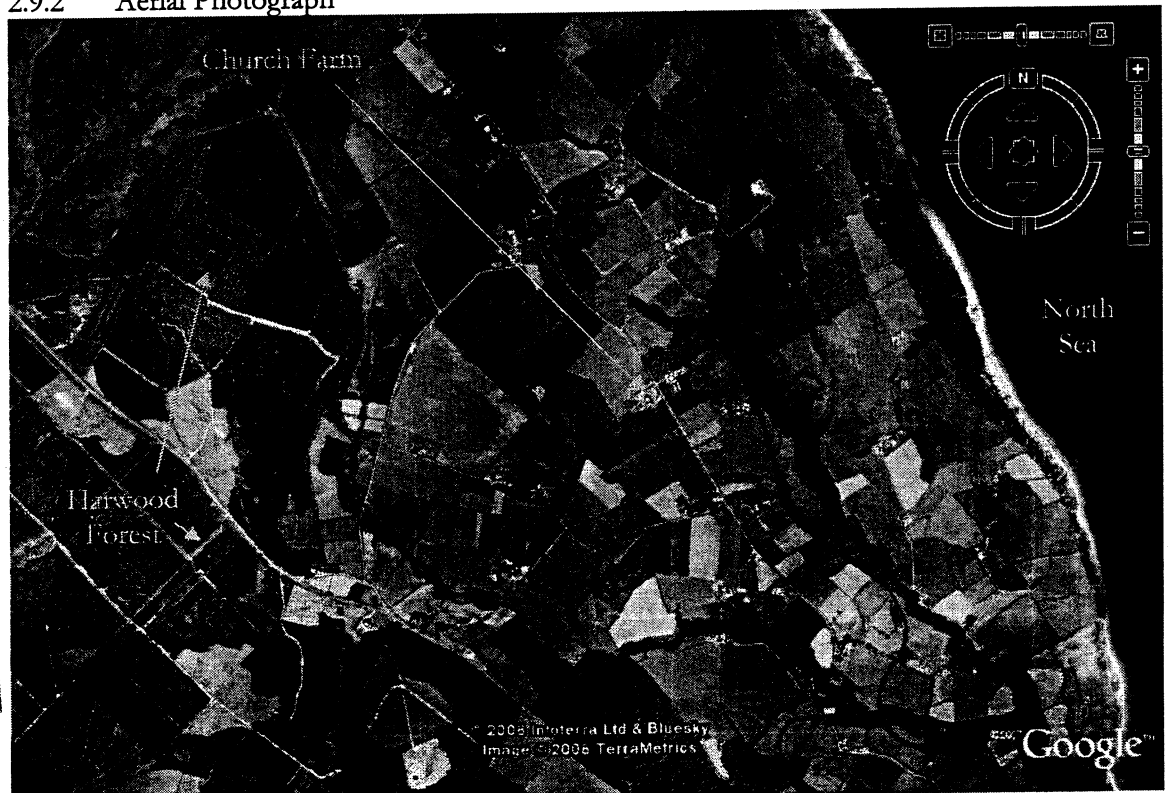
2.8.3.2 Access to the second floor of the granary was restricted due to health and safety reasons.

2.9 Maps of the survey area

2.9.1 Location Map



2.9.2 Aerial Photograph



NYMNP
17 MAR 2008

3.0 IMPACT ASSESSMENT

- 3.1 The granary and store have been assessed as having a low probability of bat interest (see 7.2.4.2). This has been determined by the absence of signs of bat activity and usage on site, derelict nature, heavy usage and absence of features that may support roosting bats (see section 2.8).
- 3.2 Based on the current information, the granary and store do not support a bat roost. However, bats are by nature highly mobile and secretive mammals and there is always a possibility that bats may turn up at a site at any time. Therefore, taking into consideration all the information collected to date, it has been determined that the proposed development would pose none/negligible impacts to local bat populations.

4.0 MITIGATION

4.1 Legal Protection

Legal obligations towards bats are generally concerned with roost protection. All developments, known to contain bat roosts, require a licence from the Department of Environment Food and Regional Affairs (DEFRA) (see 7.1.10 – 7.1.15). Under Section 9 of the Wildlife and Countryside Act (1981) it is an offence for anyone without a licence to kill, injure, disturb, catch, handle, possess or exchange a bat intentionally. It is also illegal for anyone without a licence intentionally to damage or obstruct access to any place that a bat uses for shelter or protection. As no bat roosts were detected during the survey, the works would not require a licence to develop the site. However, the Method Statement outlined in section 4.2 should be adopted in case of the late discovery of bats on site.

4.2 Method Statement

4.2.1 This method statement outlines a “best practice” approach to work carried out on the site. It should be copied to contractors and all those involved with demolition, timber treatment, roofing and building works, whose work may affect bats and their roosts on site

4.2.2 Locating Bats

Bats are by nature highly secretive, mobile mammals, therefore bats and their roosts can be very difficult to detect. A pipistrelle bat is capable of roosting in a crack measuring 20mm. In order to reduce any unnecessary disturbance, injury or death of any late discoveries of individual bats roosting in the buildings the following procedures should be implemented. Common roosts locations must be checked. These include:

- Crevices in brickwork and gaps in mortar;
- Mortice joints;
- Around window and door frames.

4.2.3 Working Approach

Careful removal by hand of all fittings and fixtures as describe in 4.2.2 should be undertaken. It is likely that as original materials are to be salvaged to re-sue in the development this approach will be adopted.

NYMNPA

17 MAR 2008

4.2.4 Late discoveries

In the event that bats are discovered in any buildings, Natural England's Regional North and East Yorkshire Team should be contacted on 01904 435500.

4.2.4.1 If it is necessary to remove a bat from the premises to avoid it being harmed, ensure that gloves are worn. It should be placed carefully in a cardboard box and placed in a dark quiet place until it can be released at dusk near to where it was found. Alternatively, it can be moved to an undisturbed part of the building with access to the outside. It is important to ensure that the bat is kept safe from predators.

4.2.5 The data collected to support the output of this report is valid for one year. This report is valid until February 2009. After this time, additional surveys need to be undertaken to confirm that the status of the building, as a bat roost, has not changed.

4.2.6 Habitat Enhancements

Lighting has a detrimental effect on bat activity; many bats will actually avoid areas that are well lit. Lighting can cause habitat fragmentation by preventing bats from commuting between roosts and foraging grounds (A.J Mitchell-Jones 2004).

4.2.6.1 Urban gardens and recreation areas can provide good foraging grounds for bats. Green areas can be improved by growing night-scented flowers and other flowers favoured by insects. More information on suitable planting to encourage bats obtained from The Bat Conservation Trust (www.bats.org).

4.2.6.2 Leaving areas of uncut grass and providing open water will attract insects. Trees and shrubs in gardens will provide cover and additional feeding grounds

4.2.6.3 Specially designed bat boxes can be located on site. Schwegler Bat Boxes are recommended and well tested boxes:

4.2.6.4 The following bat boxes provide additional roost habitats and are available from Wold Ecology.

- The Summer & Winter Bat Box (1WI) for installation into walls of buildings and structures. Provides habitat all year round.
- Bat Tube (1FR and 2FR) system. The tube is designed to meet behavioural requirements of the types of bats that roost in buildings i.e. Pipistrelle spp. This design can be installed flush to external walls and beneath a rendered surface.
- Brick Box. This design has been used for over 40 years to encourage bats to roost around buildings and bridges. It can be installed flush with the outside wall and rendered over so that only the entrance hole is visible.
- The majority of these boxes are self-cleaning as they are designed so that the droppings fall out of the entrance. This reduces the possibility of smell during the summer months.

4.2.6.5 For more information on designs and installation of bat boxes see: www.schwegler-natur.de and www.bct.org.uk.

NYMNP

17 MAR 2008

- 4.2.6.6 Wold ecology recommends that 2 boxes are sited on within the Church Farm complex.

5.0 SUMMARY

- 5.1 There was no evidence to suggest the presence of bats and in its current condition, it is extremely unlikely that granary or store supports a bat roost. It is considered that the proposed development will have none/negligible impacts on bat species.
- 5.2 As no bat roosts were identified on site, a DEFRA licence is not be required to develop the site. However, bats and their roosts are fully protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and are further protected under Regulation 39(1) of the Conservation (Natural Habitats &c.) Regulations 1994. If any bats or evidence of bats be found prior to or during development, work must stop immediately and Natural England contacted for further advice. This is a legal requirement under the Wildlife and Countryside Act 1981 (as amended) and applies to whoever carries out the work. All contractors on site should be made ware of this requirement and given Natural England's contact details.
- 5.3 It is recommended that, where possible, habitat enhancements should be undertaken to improve roosting opportunities for bats in the surrounding area.

6.0 REFERENCES

Bat Conservation Trust. 'Bats in Churches' leaflet.

Mitchell-Jones A.J. (2004). 'Bat Mitigation Guidelines'. English Nature, Peterborough.

English Nature (2003). 'Focus on Bats'.

English Nature (1993) 'Bats in Roofs; A Guide for Surveyors'.

English Nature Northumbria Team (2004) 'Bat surveys for development proposals in North-East England'. English Nature.

Mitchell-Jones, A.J. & McLeish, A.P. (1999) 'The bat workers' manual' 2nd edition. Joint Nature Conservation Committee.

Mitchell-Jones, A.J. (2004) 'Bat mitigation guidelines'. English Nature, Peterborough.

The Bat Conservation Trust (electronic 2002) www.bats.org.uk Much additional information is available on bats at this website.

Habitat Management for Bats. (2001). A guide for land managers, land owners and their advisors. JNCC.

NYMNP

17 MAR 2008

7.0

APPENDICES

7.1 Background to Bats - Bat Biology.

7.1.1 There are currently 17 species of bat native to the United Kingdom. Bats roost in a variety of places such as caves, mines, trees and buildings. Woodlands, pasture, ponds and slow flowing rivers or canals provide suitable feeding areas for bats as they support an abundance of suitable insect forage. Bats tend to feed during the first two to three hours after sunset and again before dawn, when insect activity is at its most intense (JNCC 2004).

7.1.2 Bat activity over the course of a year reflects the seasonal climate and the availability of food as follows (The Bat Conservation Trust, undated):

January - March - insect prey is scarce and bats will hibernate alone or in small groups.

April - May - insects are more plentiful and bats will become active. They may become torpid (cool and inactive) in bad weather. Females will start to form groups and will roost in several sites.

June - July - females gather in maternity roosts and give birth to young, which are suckled for several weeks. Males roost alone nearby.

August - September - mothers leave the roost before the young. Bats mate and build up fat for the winter.

October - December - Bats search for potential hibernacula. They become torpid for longer periods and then hibernate.

7.1.3 Bats do not stay in the same roost throughout the year. They have different requirements of roosts at different times of the year. During late April/May the bats leave their winter roosts and the females come together to form 'nursery roosts', these usually consist of pregnant females along with a few non-breeding and immature females. At this time the males roost either singly or in small numbers. The single offspring is born during late June early July and can fly within 3-5 weeks.

7.1.4 Typical roost sites are cracks and crevices in buildings and other structures but more typically under hanging tiles, slates, soffits and cavity walls of fairly modern buildings or holes and splits in trees.

7.1.5 The conditions needed by bats for hibernation require the maintenance of a relatively stable low temperature (2 - 6°). Suitable sites include; old trees, caves, cellars, tunnels, and icehouses.

7.1.6 Whilst the summer roosts consist of single species (although 2 - 3 species can be found within one large structure but occupying separate roost sites), winter sites often consist of 4 - 6 different species of bat, although there is often niche separation.

NYMNP

17 MAR 2008

- 7.1.7 Bats have a complex social structure based on 'meta populations' and also utilise other transitional or intermediate roost sites.

The several different types of roost, which bats occupy throughout the year, are as follows:

Daytime summer roosts are usually cool and secluded and are where bats wait for their next feeding opportunity.

Nursery/maternity roosts where young are born and are usually quite warm. Young spend their first few weeks here before they become independent.

Temporary night roosts are used for shelter nearer to feeding areas if the weather is bad. They are also used for short periods between dusk and dawn to save returning to the main roost.

Mating roosts are set up by the males, where they attempt to attract females for mating.

Hibernacula are those roosts in which bats hibernate over winter. These have to be cold and free from any temperature fluctuation. The coldness enables bats to lower their body temperature and become torpid. This saves a lot of energy, enabling them to survive on the fat stores within their bodies that they have built up throughout the summer.

- 7.1.8 The main threats to bats include:

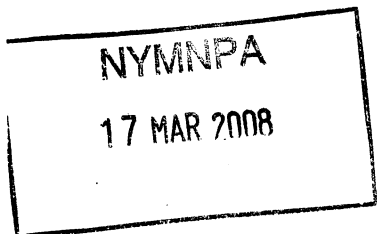
- Habitat loss (e.g. deforestation)
- Loss of feeding areas as a result of modern forestry and farming practices.
- Use of toxic agrochemicals and remedial timber treatment chemicals.
- Disturbance and damage to bat roosts.

- 7.1.9 Bats have been in decline both nationally and internationally during the latter part of the 20th Century. Bats require a variety of specific habitats in order to meet the basic needs of feeding, breeding and hibernating and are therefore extremely vulnerable to change such as the loss of flight lines through the removal of hedgerows.

It is thought that even the two most common and widespread bats, the common pipistrelle and the soprano pipistrelle, have declined by an estimated 70% (1978-1993 figures). There are a number of bat species, which are now considered seriously threatened with one species, the greater mouse-eared bat being classed as extinct as it is no longer breeding in the U.K.

- 7.1.10 All European bats are listed in Annex IV of the EC Directive 92/94/EEC 'The Conservation of Natural Habitats and of Wild Fauna and Flora' as being in need of "strict protection". This is translated into British Law under Statutory Instrument No. 2716 Conservation (Natural Habitats & c.) Regulations 1994. British bats are included under Schedule 5 of the Wildlife & Countryside Act 1981. They can therefore be described as a 'fully protected' or 'protected' species.

- 7.1.11 Under Section 9 of the Wildlife and Countryside Act (1981) it is an offence for anyone without a licence to kill, injure, disturb, catch, handle, possess or exchange



a bat intentionally. It is also illegal for anyone without a licence intentionally to damage or obstruct access to any place that a bat uses for shelter or protection (i.e. a roost). This holds true even for sites that are not currently occupied, as bats can return to roosts year after year. The Bat Conservation Trust recognises bat roosts for up to 5 years after being vacant (Anon 2004).

7.1.12 Under the Regulations it is an offence to:

- Deliberately capture or kill any wild animal of a European Protected species.
- Deliberately disturb any such animal.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal (or plant) of a European protected species, or any part of, or anything derived from such a wild animal.

7.1.13 The species is also listed in Appendix II of the Bonn Convention (and its Agreement on the Conservation of Bats in Europe) and Appendix II of the Bern Convention (and Recommendation 36 on the Conservation of Underground Habitats). Although these are recommendations and not statutory instruments.

7.1.14 Natural England is the Government body responsible for nature conservation. Local planning authorities must consult them before granting planning permission for any work that would be likely to result in harm to the species or its habitat. Natural England issue "survey" licenses for survey work that requires the disturbance or capture of a species for scientific purposes. They also issue "conservation" licenses that are required for actions that are intended to improve the natural habitat of a European protected species or to halt the natural degradation of its habitat.

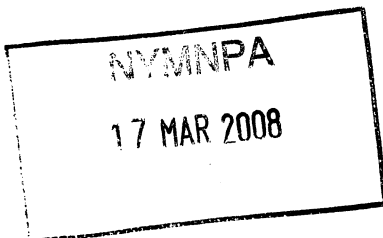
7.1.15 "Development" licences are issued by DEFRA for any actions that may compromise the protection of a European protected species, including bats, under the Conservation (Natural Habitats, &c.) Regulations 1994. This includes all developments and engineering schemes, regardless of whether or not they require planning permission.

7.1.16 The UK Biodiversity Action Plan states that although the pipistrelle is one of the most abundant and widespread bat species in the UK, it is still thought to have undergone a significant decline in the latter part of this century. The main factors cited for causing loss and decline include;

- A reduction in insect prey abundance, due to high intensity farming practice and inappropriate riparian management.
- Loss of insect-rich feeding habitats and flyways, due to loss of wetlands, hedgerows and other suitable prey habitats.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

The main action plan aims and objectives include;

- Maintain the existing population size of *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*



- Maintain the existing geographical range of *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*
Restore population size of *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus* to pre-1970 numbers.

7.2 Significance of bat roosts, appraising the nature conservation value;

- 7.2.1 The significance of bat roosts should be appraised against the following table. Where the extent of the bat roost is unclear a precautionary approach should be taken in evaluating the significance of the roost and the highest potential category should be selected.

Table 7.2.1 Appraisal of significance of bat roosts.

Scale	Summary	Examples
International	Any significant roosting sites for European Annex 2 species	Barbastelle bat roosts are only known applicable feature in East Anglia.
National	Any roosts qualifying as SSSI under the EN criteria.	Details of criteria are given in 9.1.2 Site Selection Guidelines for Biological SSSI's.
Regional	Any significant bat roosts and features, equivalent in interest to qualifying a site as a Country Wildlife Site.	Breeding and hibernation roosts of most species.
Local	All other sites supporting feeding bats as Wildlife and Countryside Act protected species.	Bats foraging within a structure, night roosts and minor transition roosts.

7.2.2 Site Selection Guidelines for Biological SSSIs

- 7.2.2.1 The following statements are made in respect of selecting SSSIs for bats in JNCC (1989) and JNCC (1998) in Section 13;

Sub-section 1.9 Reason for notification

"The bats have become a major focus of conservation concern in Britain, and all 15 species are protected through Schedule 5 of the 1981 Act. The mouse-eared bat is now virtually extinct in Britain and other species, most notably the two horseshoe bats, are threatened. Some species, for example the barbastelle, are so rare that little is known about their conservation status, but other species appear to be declining in numbers. All bats are vulnerable, through their use of a relatively small number of sites for communal roosting and breeding, often in buildings; so legal protection against disturbance and taking has been an effective conservation measure. Enhancing the protection of key sites through the SSSI mechanism can be helpful, but the notification of sites in buildings, particularly domestic dwellings, needs to be considered carefully if it is to have the desired effect."

Sub-section 3.3 basis of selection

"The selection of bat roosts is on a national basis except for certain mixed hibernacula in AOSs where large roosts are unknown."

NYMNP
17 MAR 2008

Sub-section 3.3.4 Barbastelle, Bechstein's and grey long-eared bats

"All of these are rare species with no or very few breeding roosts known. Any traditional breeding roosts should be considered for selection if found."

Sub-section 3.3.5 Natterer's, Daubenton's, Whiskered, Brandt's, Serotine, Noctule and Leisler's bats

"These species are reasonably widespread and it would be difficult to justify the notification of breeding roosts except in the most exceptional circumstances. These might include exceptionally large colonies with a long history of usage of a particular site. In general, protection of roosts of these species should come under section 9 of the 1981 Act."

Sub-section 3.3.6 Pipistrelle and brown long-eared bat

"These two species are widespread and more common than the above. Protection should rely on section 9 of the 1981 Act."

Sub-section 3.3.7 All bat species – mixed assemblages

"Large hibernacula of mixed species are very important and sometimes spectacular, but perhaps number only 20 sites in total. On a national basis, all hibernacula containing (a) four or more species and 50 or more individuals, (b) three species and 100 or more individuals or (c) two species and 150 or more individuals should be selected. In some parts of Britain such large sites are unknown, so alternatively in these areas one hibernaculum site per AOS containing 30 or more bats of two or more species may be considered for selection."

"Because of the complications associated with the notification of sites in buildings, the appropriate CSD mammal's specialist should be consulted over the selection of all such sites."

7.2.3 Current status of bats in the UK.

7.2.3.1 The current known status of bats as given by the Bat Conservation Trust is shown in Table 6.

Table 7.2.3 Status of bats.

Species	Status of Population Nationally
Whiskered/Brandt's	Endangered
Natterer's	Not Threatened
Daubenton's	Not Threatened
Noctule	Not Threatened
Serotine	Vulnerable
Pipistrelle 45	Not Threatened
Pipistrelle 55	Not Threatened

7.2.4 Definitions of probabilities of bat interest.

7.2.4.1 Low probability of bat interest.

Buildings in this category fall into two main types:

- Generally well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall or without an attic space.

NYMNP
17 MAR 2008

- Contain some or all of the above features but are both draughty and thick in cobwebs or contain strong odours such as solvents, diesel, etc.

It must be borne in mind that a building from this latter group can become suitable for bats due to refurbishment. This often happens to houses once the attic space has been cleaned and under felted prior to timber treatment.

In a non-residential property no licence is required for development to a building classified as **Low probability of bat interest**.

7.2.4.2 Medium probability of bat interest

- The buildings here contain many sites suitable for roosting bats although no obvious signs were recorded during the survey. In exposed conditions on large buildings the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.
- Occasionally a light scattering of droppings will be recorded in an attic or a semi-derelict building, which is considered by the surveyor unsuitable for use as a bat roost or may be used occasionally as a night perch or feeding post. The medium probability of bat interest can be used based on the surveyor's experience
- Whilst no licence is required for development to a non-residential building classified as **Medium probability of bat interest**, it is often best practice to conduct sensitive roof stripping or architectural salvaging to minimise any possible disturbance and to employ mitigation techniques.

7.2.4.3 High probability of bat interest

- This group includes buildings with known roosts or signs of bat occupancy such as droppings and staining at a roost entrance. The description of high probability buildings will also contain an indication as to the time of the year when it will be occupied by bats i.e. Summer – nursery roost. Winter – hibernation.
- If the building/buildings fall into the high probability group then the area of bat interest should be identified on site with the contractors to ensure that work does not affect the bats roost.
- If it is thought the work will have a direct effect on the bat roost and is unavoidable then advice must be sought from the Species Office for Natural England and a DEFRA licence obtained prior to any the work proceeding.

NYMNP

17 MAR 2008

7.2.5 Further information on Bats

7.2.5.1 Review of Bat Legislation

Bats are fully protected under the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats &c) Regulations 1994. The Act and Regulations include provisions making it illegal to intentionally or deliberately kill, injure or

capture (take) bats or deliberately or recklessly disturb bats (whether in a roost or not) or damage, destroy or obstruct access to bat roosts.

7.2.5.2 Review of Bat Ecology

All British bats have two main types of roost (a) A summer or nursery roost and (b) A winter or hibernation roost.

a. Summer Nursery or Breeding Roost.

During late April/May the bats leave their winter roosts and the females come together to form 'nursery roosts', these usually consists of pregnant females along with a few non-breeding and immature females. At this time the males roost either singly or in small numbers.

The single offspring is born during late June early July and can fly within 3-5 weeks.

Typical roost site are cracks and crevices in buildings and other structures but more typically under hanging tiles, slates, soffits and cavity walls of fairly modern buildings or holes and splits in trees.

b. Winter or Hibernation Roost

The conditions required by bats for hibernation are the opposite of the warm dry summer roost, often being cold and wet, and where a relatively stable low temperature (2 – 6^o) can be maintained. Suitable sites include; old trees, caves, cellars, tunnels, and ice houses.

Whilst the summer roosts consist of single species (although 2 – 3 species can be found within one large structure but occupying separate roost sites), winter sites often consist of 4 – 6 different species of bat, although again there is often niche separation.

- c. Bats have a complex social structure based on 'meta populations' and also utilise other transitional or intermediate roost sites.

NYMNP

17 MAR 2008

MA08/26

PROPOSED CONVERSION
OF OUTBUILDINGS
CHURCH FARM
STAINTONDALE
FOR
MR C BIRD

NYMNP

17 MAR 2008

MAUGHAN ASSOCIATES
25 Alma Square
Scarborough
North Yorkshire
YO11 1JR

Civil & Structural Design Engineers

Tel/Fax [REDACTED]

14 March 2008

Mr C Bird
Church Farm
Staintondale
Scarborough
YO13 OEL

Ref: MA08/26

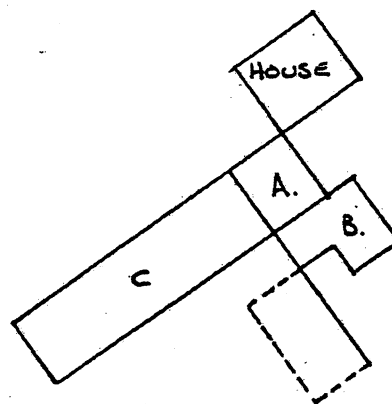
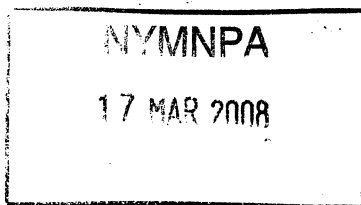
Dear Mr Bird,

Re: Proposed Conversion of Outbuildings – Church Farm, Staintondale

As requested, I carried out an inspection at the above property on the 25th February 2008 restricting my attention to the general structural condition of the subject outbuildings and their suitability for conversion.

1) **General**

The buildings are single storey, with walls of varying materials, block, stone, artificial stone and asbestos sheet covered roof areas. The obsolete dairy has been demolished, leaving the thickened out N. E. wall.



R Maughan MIET

Established 1985

Re: Proposed Conversion of Outbuildings, Church Farm, Staintondale

2) **Unit A (Ex Garage)**

Walls are plumb and this unit is considered satisfactory with no discernible signs of recent movement.

3) **Unit B (Store/Games Room)**

There is a vertical crack to the blockwork of the rear wall but this is considered to be due to thermal movement and not due to settlement. The walls are substantially plumb and there are no other apparent signs of distress.

4) **Unit C (Storage Area)**

This long general storage building is constructed out of blockwork and reconstituted stone with blockwork internal dividing walls, and timber trusses carrying the roof. Old window openings on the N. W. elevation have been infilled. The walls are substantially plumb and there are no apparent indications of distress.

5) **Trial Holes**

Trial holes were taken out at various locations to confirm existing foundations, depths, and founding material. All concrete foundations were taken down to firm clay, but the depths varied from 750mm to a shallow 150mm.

6) **Discussion**

New roofing is proposed in the upgrading of the buildings and this will include additional masonry to lift gable walls where necessary. The founding material is capable of the proposed loading, but underpinning to several sections of the structure will be required. These areas include the majority of the N. W. elevations, part of the dividing wall between Units A & B, and a section of the retained wall of the obsolete dairy.

It is concluded that the buildings form an adequate basis for conversion.

NYMNP

17 MAR 2008

Re: Proposed Conversion of Outbuildings, Church Farm, Staintondale

I trust that the above is adequate for your present purpose, but if you have any queries or require anything further please do not hesitate to get in touch.

Yours sincerely,

A large, dark, irregular scribble that completely obscures the signature of the sender.

(R Maughan)

NYMNP
17 MAR 2008