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**John Drewett BSc
Ecological Consultant**

**Foulsyke Farm, Fylingdales
Whitby, North Yorkshire**

Bat survey report

Revised 15 May 2005

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23 MAY 2005

John Drewett BSc – Ecological Consultant
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Details of surveyors working on this project

Surveyor	Experience
John Drewett	Licensed bat worker and trainer with 15 years experience. Licensed by English Nature for all counties.
Val Juneman	Trainee bat worker

Details of report and revisions

Date	Details	Issued by
19 April 2005	Original report	John Drewett
15 May 2005	Revised following revisit	John Drewett
<i>This report is intended to be used in its entirety. Any amendments or extracts must first be agreed with John Drewett</i>		

REVISIT A

23 MAY 2005

1 Summary

- 1.1. A bat and barn owl survey of outbuildings at Foultsyke Farm, Fylingdales, North Yorkshire was commissioned by Mr & Mrs Bryars in connection with a planning application to convert the buildings as holiday cottages and a micro-brewery. A daytime survey was carried out on 18 April 2005 by John Drewett and a bat emergence survey on 14 May 2005 by John Drewett and Val Juneman.
- 1.2. No evidence of use by bats was found during the survey. A single Common Pipistrelle was observed at the site during the evening survey, foraging around trees close to the farmhouse. No bats emerged from any of the buildings.
- 1.3. There was no evidence of use of the site by barn owls.
- 1.4. Swallows were found to be nesting within units 1A and 1B. As with all birds, their nests are protected whilst in use. It is important not to cause undue disturbance to nesting swallows or destroy their nests during the breeding season. Advice on incorporating features to allow swallows to continue using the site in future years has been included in this report.

2 Survey methodology

- 2.1. North Yorkshire Bat Group was asked to provide copies of any records held relating to bats at the site or within 2km of the site.
- 2.2. A thorough search of the interior and exterior of buildings on the site was made in order to look for bat droppings, feeding remains, live bats, dead bats, stains on timber from the natural oils in bats' fur and claw marks on timbers made by bats regularly roosting in the same location. A torch was used to aid this part of the survey.
- 2.3. A visual inspection of the site was made to note any crevices in trees, buildings or other structures that may be suitable for roosting bats. Close-focussing binoculars were used as necessary.
- 2.4. A search of the buildings was made for owl pellets, bird lime splashes, potential nesting and access sites.
- 2.5. An evening bat activity survey was carried out on 14 May 2005 between 2030 and 2215 hrs. Heterodyne bat detectors were used to aid in the location and identification of any bats present. The weather at the time of the survey was dry and cloudy, with a light breeze. The temperature was 7 degrees C at the start of the survey and 4 degrees C at the end.

3 Description of site

- 3.1. Foultsyke Farm is located at OS grid ref. NZ913024, on Fylingdales Moor in North Yorkshire. The farm is approximately 5km west of the North Sea and 4km south-west of Robin Hood's Bay. It is situated in an elevated position about 200m above sea level.

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3.2. The site includes a farmhouse and garage (not included in the survey) plus three sets of outbuildings, the locations of which are shown on the plan at the end of this report. The units will be referred to in this report by the unit numbers indicated on the plan.

3.3. Unit 1A comprises a tall stone barn with a pantile roof laid (fig. 3) over close fitting wooden laths (fig. 2). There are some deep wall crevices, especially internally and the floor has a light covering of straw. A metal silo occupies part of the interior. There are some areas of the main beam which are clear of cobwebs.



Fig. 1 Interior of unit 1A



Fig. 2 Interior of roof of unit 1A



Fig. 3 Exterior of unit 1A



Fig. 4 Exterior of unit 1B

3.4. Unit 1B (fig. 4) adjoins unit 1A to the south and is an exceptionally tall stone barn with a steeply pitched roof. The roof is of corrugated metal and unlined (fig. 5). There is a small, lean-to stone building (fig. 6) on the south end of Unit 1B, adjacent to a tree. This section has a pantile roof.



Fig. 5 Interior of unit 1B

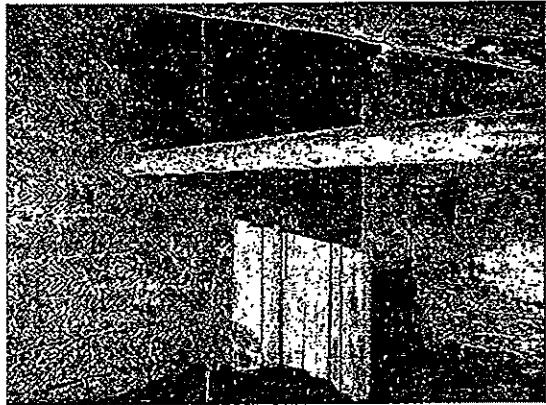


Fig. 6 Interior of unit 1B annexe

- 3.5. Units 2A and 2B are a stone barn with collapsed roof and partially collapsed walls (fig. 7).
- 3.6. Unit 3A is a small stone building (fig. 8). The pantile and lath roof has largely collapsed and that part remaining is in a poor and damp state. The adjoining animal shelter (unit 3B) is largely of unlined corrugated metal construction (fig. 9).



Fig. 7 Units 2A and 2B

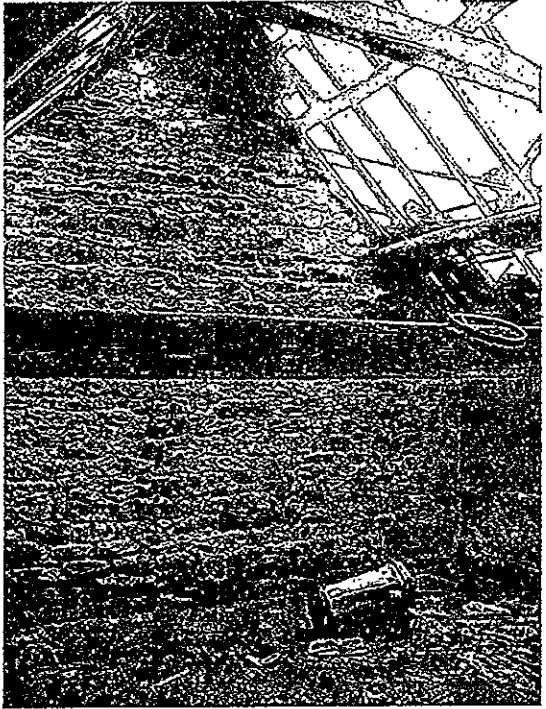


Fig. 8 Unit 3A



Fig. 9 Unit 3B

Bats

4 Brief summary of bat biology

- 4.1. 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 variety generally declining northwards. All British bats feed solely on invertebrates.
- 4.2. 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 in subsequent years. In summer females are generally colonial, each species gathering together in warm maternity roosts to give birth to their single young. Males often spend the summer singly or in smaller groups. Bats may use several different roosts over a summer, moving between sites depending on prevailing weather and other conditions.
- 4.3. In winter bats hibernate. During hibernation their body temperature falls close to the ambient temperature of their chosen hibernaculum and 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 which cause them to wake, a process which uses considerable energy. Repeated arousal in winter can threaten their survival. Many species hibernate in cool, stable underground sites such as caves and tunnels.
- 4.4. For more than 50 years bats have undergone a major decline in numbers. The reasons for these declines are many and varied, but include destruction of roost sites, a reduction in insect prey and direct and indirect poisoning from toxic chemicals. Even our commonest species, the Pipistrelle bats, have declined by more than 60% in recent years.
- 4.5. 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. For most species, these various sites must be linked by a more or less continuous network of linear features such as rivers, woodland edges and hedgerows, along which the bats commute from place to place (Limpens & Kapteyn 1991).

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5 Legislation relating to bats

- 5.1. Bats receive full protection under the Wildlife and Countryside Act 1981 (in Northern Ireland under the Wildlife (Northern Ireland) Order 1985 and on the Isle of Man by the Wildlife Act 1990). They are also protected under the Conservation (Natural Habitats, &c.) Regulations 1994.
- 5.2. It is an offence for any person to intentionally kill, injure or take any wild bat; to intentionally disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection; to intentionally damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection; to be in possession or control of any live or dead wild bat, or any part of, or anything derived from a wild bat; or to sell, offer or expose for sale, or possess or transport for the purpose of sale, any live or dead wild bat, or any part of, or anything derived from a wild bat.
- 5.3. The Countryside and Rights of Way Act 2000 amends the Wildlife and Countryside Act to also make it an offence to *intentionally or recklessly* damage, destroy or obstruct a place that bats use for shelter or protection. The prosecution has to show that a person either deliberately took an unacceptable risk, or failed to notice or consider an obvious risk.
- 5.4. Where it is proposed to carry out works which will affect a bat roost other than in an existing dwelling house, a licence must first be obtained from the Department for Environment, Food and Rural Affairs (DEFRA) even if no bats are expected to be present when the work is carried out. Alterations to existing dwelling houses must first be submitted to English Nature for approval.
- 5.5. A DEFRA licence application requires details of the work proposed, the bats which may be affected and mitigation proposed to maintain the favourable status of bats in the region. The application is usually drawn up and submitted by someone with bat expertise. A licence may also require ongoing monitoring of the site following completion of the works.
- 5.6. When considering an application, DEFRA consult with English Nature and the local planning authority. This process may take a considerable length of time. Whilst DEFRA presently state that they aim to respond formally to an application within 30 working days of receipt, there is no guarantee that this time scale will be met and occasionally it is exceeded, sometimes by a substantial margin. There is no fast track to obtaining a licence and applications can only be made once planning permission has been granted (where appropriate).
- 5.7. Licences can only be issued if DEFRA are 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.
- 5.8. PPG9: Nature Conservation (PPG9, 1994) is the relevant national planning guidance in relation to ecological issues. It provides guidance on how the Government's policies on nature conservation should be implemented through the land use planning system. PPG9 states that it seeks to "minimise the adverse effects on wildlife where conflict of interest is unavoidable".

6 Bat Survey results

- 6.1. Only a single Common Pipistrelle bat was seen during the surveys, this bat being observed in flight from 2140 hrs on the 14 May visit. This bat repeatedly flew over the site, feeding around the trees next to the farmhouse. Its origin is unknown, but it did not emerge from any of the farm buildings.

7 Desk study

- 7.1. North Yorkshire Bat Group provided the following records relating to bats previously recorded within 2km of the site.

Species	Site	Grid ref.	Date	Status	Comment
Unknown	Thorpe Hall, Fylingthorpe	NZ9304	28 Aug 2002	Not recorded	Bat in house
Unknown	Fylinghall School	NZ937043	04 Jul 2003	Summer Roost	80 + bats in roost in Jnr Girls House. Baby bat found.
Unknown	Station House, Fylinghall, Fylingdales	NZ9402	08 Sep 1999	Not recorded	
Whiskered Bat	Fylingthorpe Hall, Robin Hood's Bay	NZ944049	29 Apr 2004	Not recorded	Bat found in sink.
Pipistrelle species	Fylingthorpe School	NZ944052	30 Jul 2004	Summer Roost	Around sash windows.

8 Bat evaluation

- 8.1. Sixteen species of bat regularly breed in the United Kingdom, of which eight are known to occur in North Yorkshire. There are relatively few local bat records in the North Yorkshire Bat Group database, but this is largely compiled as a result of enquiries from the public. Nevertheless, at least two species are recorded from the vicinity and it is likely that most of the eight species are found locally.
- 8.2. Only a single Common Pipistrelle was seen during the survey. This bat appeared quite late in the evening, suggesting that it might have come some distance. Alternatively, it could have been a male bat roosting in the trees or the farmhouse roof.
- 8.3. It is considered that this site is not of any significance in terms of bat conservation.

9 Mitigation principles for bats

- 9.1. Mitigation is required to avoid or reduce the impact of development proposals on the population of bats present, either roosting or feeding. Licences are normally required where a roost site is threatened in some way by a scheme, but might also be necessary where the viability of a roost is threatened by the removal of crucial feeding habitat.

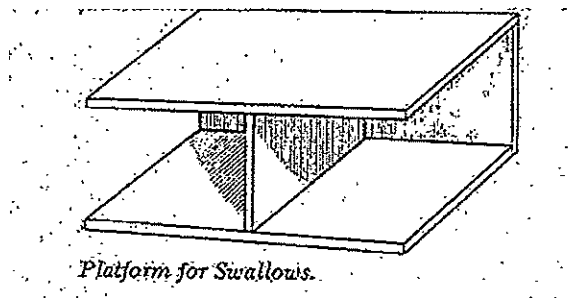
- 9.2. English Nature in their published guidelines (*Mitchell-Jones, 2004*) defines the key principles involved. **Mitigation** involving changes to the scheme or altering the timing of work to reduce or remove impacts and **compensation**, the creation of new replacement roosts or habitats.
- 9.3. Mitigation and compensation are required to be proportionate to the size of the impact and the importance of the population affected. There should be no net loss of roost sites and compensation should provide an enhanced resource since the adoption of new roost sites by bats is not guaranteed. The scheme should replace like with like in terms of the type of roost. Compensation should ensure that the affected bat population could continue to function as before.

10 Likely effects of the proposed scheme on bats

- 10.1. The conversion of these barns is unlikely to have any impact on local bat populations.
- 10.2. There is always the risk that individual bats may be encountered during building works, particularly in winter. In this situation work must stop immediately and the English Nature bat helpline (0113 274 7938) be contacted for advice. Risk of injury to bats can be minimised by lifting roof tiles vertically when removing them and checking holes in walls for hibernating bats before pointing up.

11 Other wildlife

- 11.1. Swallows nest at the site, particularly in units 1A & 1B. Like other birds, Swallows are protected, as are their nests when these are in use.
- 11.2. In order to allow swallows to continue nesting at the site small platforms may be placed against beams or walls in outbuildings. Continuous access is needed throughout the summer. The two chamber platform illustrated below is 150mm high and each chamber is 100mm square.



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References

- Anon (2002/3) *Barn owls on site. A guide for developers and planners*, English Nature & The Barn Owl Trust
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- Mitchell-Jones A J (2004) *Bat mitigation guidelines*, English Nature.
- Mitchell-Jones A J & McLeish A P (2004) *Bat Workers' Manual*, JNCC.

**John Drewett BSc
Ecological Consultant**

Foulsyke Farm, Fylingdales

Whitby, North Yorkshire

Bat & barn owl survey report

19 April 2005

John Drewett BSc – Ecological Consultant
3 Victoria Row, Eppleby, Richmond, North Yorkshire, DL11 7BE

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Surveyor	Experience
John Drewett	Licensed bat worker and trainer with 15 years experience. Licensed by English Nature for all counties.

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19 April 2005	Original report	John Drewett
<i>This report is intended to be used in its entirety. Any amendments or extracts must first be agreed with John Drewett</i>		

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1 Summary

- 1.1. A bat and barn owl survey of outbuildings at Foulsyke Farm, Fylingdales, North Yorkshire was commissioned by Mr & Mrs Bryars in connection with a planning application to convert the buildings as holiday cottages and a micro-brewery. The survey was carried out on 18 April 2005 by John Drewett.
- 1.2. No evidence of use by bats was found during the survey. However, the survey was undertaken at a time of year when bats are not fully active at night, so no emergence surveys were undertaken and the presence of roosts in some buildings could have been missed.
- 1.3. Units 1A and 1B have conditions suitable for roosting bats and require further investigation. Units 2A, 2B, 3A and 3B have no potential for roosting bats. No units show evidence of use by barn owls.
- 1.4. The conversion of units 2A, 2B, 3A and 3B will not have any adverse impact on bats or barn owls. There is potential for the conversion of units 1A and 1B to impact on bats if they are proved to be present.
- 1.5. Mitigation necessary to minimise the impact on any bats which may roost in units 1A and 1B will depend on the species (if any) present. Should bats use these buildings as roosts it will be necessary to obtain a licence from Defra and provide appropriate mitigation. This may restrict the time during which works may be carried out and/or the materials and methods used.

2 Survey methodology

- 2.1. North Yorkshire Bat Group was asked to provide copies of any records held relating to bats at the site or within 2km of the site.
- 2.2. A thorough search of the interior and exterior of buildings on the site was made in order to look for bat droppings, feeding remains, live bats, dead bats, stains on timber from the natural oils in bats' fur and claw marks on timbers made by bats regularly roosting in the same location. A torch was used to aid this part of the survey.
- 2.3. A visual inspection of the site was made to note any crevices in trees, buildings or other structures that may be suitable for roosting bats. Close-focussing binoculars were used as necessary.
- 2.4. A search of the buildings was made for owl pellets, bird lime splashes, potential nesting and access sites.

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3 Limitations of survey

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- 3.1. Because the survey was carried out in mid April and the weather had recently been cold and wet, it was not considered appropriate to carry out a bat emergence survey. It is therefore possible that bats roosting in inaccessible crevices within units 1A and 1B may have been overlooked.

4 Description of site

- 4.1. Foulsyke Farm is located at OS grid ref. NZ913024, on Fylingdales Moor in North Yorkshire. The farm is approximately 5km west of the North Sea and 4km south-west of Robin Hood's Bay. It is situated in an elevated position about 200m above sea level.
- 4.2. The site includes a farmhouse and garage (not included in the survey) plus three sets of outbuildings, the locations of which are shown on the plan at the end of this report. The units will be referred to in this report by the unit numbers indicated on the plan.
- 4.3. Unit 1A comprises a tall stone barn with a pantile roof laid (fig. 3) over close fitting wooden laths (fig. 2). There are some deep wall crevices, especially internally and the floor has a light covering of straw. A metal silo occupies part of the interior. There are some areas of the main beam which are clear of cobwebs.

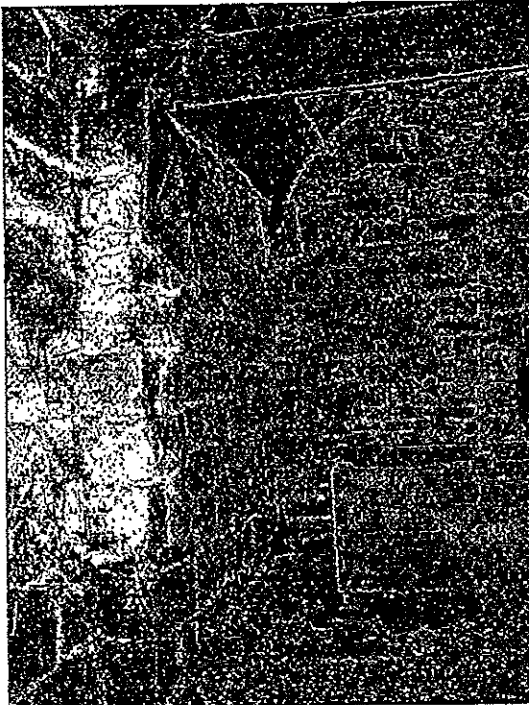


Fig. 1 Interior of unit 1A

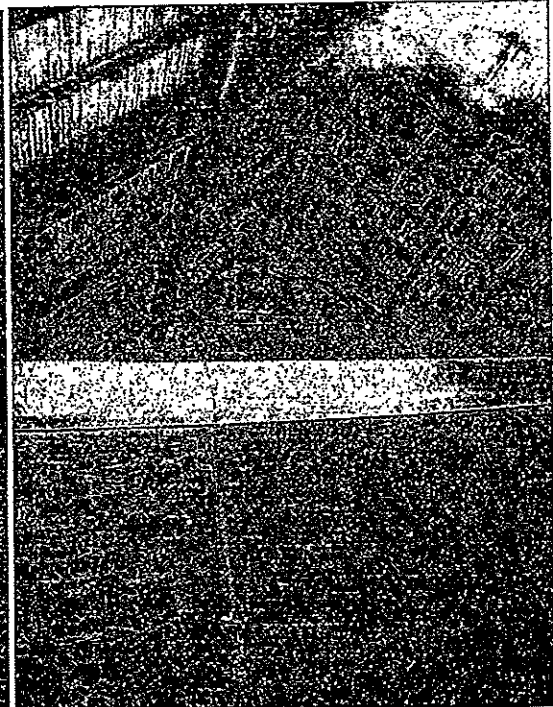


Fig. 2 Interior of roof of unit 1A

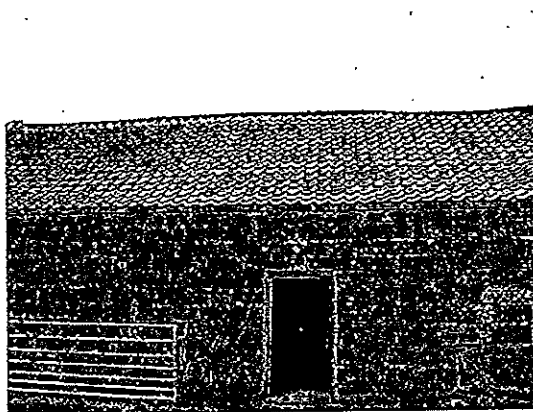


Fig. 3 Exterior of unit 1A



Fig. 4 Exterior of unit 1B

- 4.4. Unit 1B (fig. 4) adjoins unit 1A to the south and is an exceptionally tall stone barn with a steeply pitched roof. The roof is of corrugated metal and unlined (fig. 5). There is a small, lean-to stone building (fig. 6) on the south end of Unit 1B, adjacent to a tree. This section has a pantile roof.



Fig. 5 Interior of unit 1B

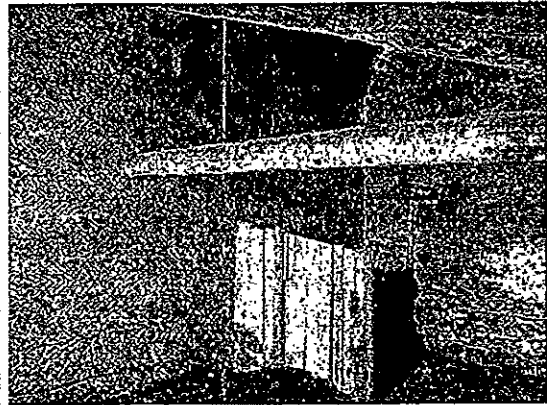


Fig. 6 Interior of unit 1B annexe

- 4.5. Units 2A and 2B are a stone barn with collapsed roof and partially collapsed walls (fig. 7).
- 4.6. Unit 3A is a small stone building (fig. 8). The pantile and lath roof has largely collapsed and that part remaining is in a poor and damp state. The adjoining animal shelter (unit 3B) is largely of unlined corrugated metal construction (fig. 9).

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Fig. 7 Units 2A and 2B



Fig. 8 Unit 3A



Fig. 9 Unit 3B

Bats

5 Brief summary of bat biology

- 5.1. 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 variety generally declining northwards. All British bats feed solely on invertebrates.
- 5.2. 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 in subsequent years. In summer females are generally colonial, each species gathering together in warm maternity roosts to give birth to their single young. Males often spend the summer singly or in smaller groups. Bats may use several different roosts over a summer, moving between sites depending on prevailing weather and other conditions.

- 5.3. In winter bats hibernate. During hibernation their body temperature falls close to the ambient temperature of their chosen hibernaculum and 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 which cause them to wake, a process which uses considerable energy. Repeated arousal in winter can threaten their survival. Many species hibernate in cool, stable underground sites such as caves and tunnels.
- 5.4. For more than 50 years bats have undergone a major decline in numbers. The reasons for these declines are many and varied, but include destruction of roost sites, a reduction in insect prey and direct and indirect poisoning from toxic chemicals. Even our commonest species, the Pipistrelle bats, have declined by more than 60% in recent years.
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- 6.3. The Countryside and Rights of Way Act 2000 amends the Wildlife and Countryside Act to also make it an offence to *intentionally or recklessly* damage, destroy or obstruct a place that bats use for shelter or protection. The prosecution has to show that a person either deliberately took an unacceptable risk, or failed to notice or consider an obvious risk.
- 6.4. Where it is proposed to carry out works which will affect a bat roost other than in an existing dwelling house, a licence must first be obtained from the Department for Environment, Food and Rural Affairs (DEFRA) even if no bats are expected to be present when the work is carried out. Alterations to existing dwelling houses must first be submitted to English Nature for approval.
- 6.5. A DEFRA licence application requires details of the work proposed, the bats which may be affected and mitigation proposed to maintain the favourable status of bats in the region. The application is usually drawn up and

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submitted by someone with bat expertise. A licence may also require ongoing monitoring of the site following completion of the works.

- 6.6. When considering an application, DEFRA consult with English Nature and the local planning authority. This process may take a considerable length of time. Whilst DEFRA presently state that they aim to respond formally to an application within 30 working days of receipt, there is no guarantee that this time scale will be met and occasionally it is exceeded, sometimes by a substantial margin. There is no fast track to obtaining a licence and applications can only be made once planning permission has been granted (where appropriate).
- 6.7. Licences can only be issued if DEFRA are 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.
- 6.8. PPG9: Nature Conservation (PPG9, 1994) is the relevant national planning guidance in relation to ecological issues. It provides guidance on how the Government's policies on nature conservation should be implemented through the land use planning system. PPG9 states that it seeks to "minimise the adverse effects on wildlife where conflict of interest is unavoidable".

7 Bat Survey results

- 7.1. No evidence of use by bats was found during the survey. However, the roof areas of unit 1A and the lean-to section of unit 1B have bat roost potential which requires further investigation. There are also crevices in the walls of units 1A and 1B which have potential for hibernating bats in winter.

8 Desk study

- 8.1. North Yorkshire Bat Group provided the following records relating to bats previously recorded within 2km of the site.

Species	Site	Grid ref.	Date	Status	Comment
Unknown	Thorpe Hall, Fylingthorpe	NZ9304	28 Aug 2002	Not recorded	Bat in house
Unknown	Fylinghall School	NZ937043	04 Jul 2003	Summer Roost	80 + bats in roost in Jnr Girls House. Baby bat found.
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Pipistrelle species	Fylingthorpe School	NZ944052	30 Jul 2004	Summer Roost	Around sash windows.

9 Bat evaluation

- 9.1. Sixteen species of bat regularly breed in the United Kingdom, of which eight are known to occur in North Yorkshire. There are relatively few local bat

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records in the North Yorkshire Bat Group database, but this is largely compiled as a result of enquiries from the public. Nevertheless, at least two species are recorded from the vicinity and it is likely that most of the eight species are found locally.

- 9.2. No evidence of bats was found during the survey and it is considered unlikely that units 2A, 2B, 3A and 3B will support bats because the first three units mentioned have little or no roof and unit 3B is of unlined, corrugated metal construction.
- 9.3. There is potential for units 1A and 1B to support small numbers of hibernating bats in wall crevices. The pantile roofs on laths have the potential for bats to roost between the tiles and laths, but this can only be confirmed by an evening emergence survey during the summer months.

10 Mitigation principles for bats

- 10.1. Mitigation is required to avoid or reduce the impact of development proposals on the population of bats present, either roosting or feeding. Licences are normally required where a roost site is threatened in some way by a scheme, but might also be necessary where the viability of a roost is threatened by the removal of crucial feeding habitat.
- 10.2. English Nature in their published guidelines (*Mitchell-Jones, 2004*) defines the key principles involved. **Mitigation** involving changes to the scheme or altering the timing of work to reduce or remove impacts and **compensation**, the creation of new replacement roosts or habitats.
- 10.3. Mitigation and compensation are required to be proportionate to the size of the impact and the importance of the population affected. There should be no net loss of roost sites and compensation should provide an enhanced resource since the adoption of new roost sites by bats is not guaranteed. The scheme should replace like with like in terms of the type of roost. Compensation should ensure that the affected bat population could continue to function as before.

11 Likely effects of the proposed scheme on bats

- 11.1. The conversion of units 2A, 2B, 3A and 3B is unlikely to have any impact on local bat populations.
- 11.2. If bats use buildings 1A or 1B these could be affected by the conversion to holiday cottages. The main potential would appear to be for bats roosting between the tiles and laths. Such crevice dwelling bats could potentially be accommodated in a similar narrow space in the roof of the converted building. If the buildings were found to be used by Brown long-eared or Natterer's bats these would be likely to require a large enclosed roof space in which to roost, which might restrict the space available for human accommodation. In either case building work would be unlikely to be permitted between May and September and a licence from Defra would be required prior to development.

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Barn Owls

12 Background on Barn Owl biology

- 12.1. Barn Owls are widely distributed and often cited as the most cosmopolitan of all land birds, occurring in open grasslands, marshes and agricultural land over most of the world's land mass. The barn owl is not endangered worldwide though the sharp decline in barn owl numbers during the last 50 years has afforded it conservation importance in the United Kingdom.
- 12.2. The barn owl is classed as an Amber Listed Species by the Royal Society for the Protection of Birds (RSPB). This means that they are of medium conservation concern, showing a moderate decline of 25- 49% in the UK breeding population or range over the previous 25 years.
- 12.3. Further to their amber status the Barn owl has been classified as a Spec3 (Declining) species with an unfavourable European conservation status.
- 12.4. Barn owls are largely nocturnal and crepuscular, roosting in buildings and trees. Their main habitat requirement is the presence of rank tussocky grassland containing short-tailed voles, the owl's main prey.
- 12.5. Factors contributing to the barn owls decline are the loss of suitable foraging habitat, frequent disturbance, lack of nesting sites due to loss of farm buildings and derelict buildings, and low numbers of small mammal prey due to loss of marginal habitat through intensive farming. They are also susceptible to secondary poisoning from rodenticides. Studies in Devon have shown that in 1991, 10% of old barns had already been converted, 4% were undergoing conversion and 20% were in a state of advanced decay or had already collapsed.
- 12.6. Research has shown that barn owl home ranges usually contain a number of roosting sites, but the loss of just one may result in barn owls abandoning the entire area, rather than adopting a new site. Sites may be used for breeding, roosting or may just be visited occasionally. Once established, they usually remain faithful to their sites from one year to the next. Those birds that know their home ranges well are likely to survive and produce most young.
- 12.7. Barn owls have been found nesting in all months of the year, but most eggs are laid in April and May. Incubation starts as soon as the first egg is laid. An average of 5.8 eggs are laid at intervals of roughly 2.5 days. Incubation takes 31 days and the average fledging period is 62.5 days. Nests are therefore occupied for about 14 weeks.
- 12.8. Sensitivity to disturbance varies greatly. From before egg laying until the brood are about three weeks old the adult birds are likely to be on-site and very sensitive to disturbance. After this period the adults may be off-site during the day and not start food deliveries until shortly after dusk. At this stage it is sometimes possible for building work to be carried out during the day, providing that work finishes and everyone leaves the site well before dusk.

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13 Legislation relating to Barn Owls

- 13.1. The barn owl is protected under Schedule 1 of the Wildlife and Countryside Act 1981. Schedule 1 species are rare breeding species, which are protected by special penalties.
- 13.2. In accordance with Schedule 1 it is an offence to intentionally disturb the birds while they are on, in or near a nesting site containing eggs or young. Near the nest is normally interpreted as *within the same building or just outside*. In the case of a tree nest about 30 metres.
- 13.3. A licence is required from English Nature if the handling of barn owls is to be undertaken. Licences cannot be issued for removal of barn owls in order to facilitate development.

14 Barn Owl Survey results

- 14.1. No evidence was found to indicate that Barn Owls use any of the buildings. The buildings offering the main potential shelter and nest sites are units 1A and 1B, but these do not have any access points large enough for these birds.

15 Other wildlife

- 15.1. There are old nests of Swallows in the buildings indicating that these birds nest at the site. In common with other birds, Swallows are protected, as are their nests when these are in use.

16 Further work

- 16.1. Evening emergence surveys should be carried out at Units 1A and 1B after mid-May to confirm whether or not bats roost in the roofs of these buildings.

References

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