DOC 2. BAT SURVEY

Preliminary Bat Roost Assessment

Site: Ash Croft, Mill Lane

Off Slaidburn Road

Waddington BB7 3JJ

31st October 2020

CLIENT:

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Summary

This report presents the results of a daylight bat roosting potential assessment undertaken in October 2020, at Ash Croft, Mill Lane, Off Slaidburn Road, Waddington, BB7 3JJ. The work has been commissioned in connection with a proposed planning application.

The scope of the survey has primarily considered roosting and hibernating bats, breeding birds and Barn owls. Additionally, the associated land has been checked for evidence of notable ecological considerations such as rare or invasive plant species.

In summary, the survey outcome shows no evidence of historic use by bats, and has identified that there is very little potential habitat value for any bat species. However, a precautionary approach should always be used when demolishing/converting buildings in the countryside, due to the transient nature of bats. In addition, there is evidence of nesting birds, and therefore precautions to ensure no breeding birds are harmed will be required. The site is not suitable for use by barn owls, and no evidence was found on the site. There are no non-native invasive species growing on the adjacent land.

Recommendations - This is work you will need to commission to obtain planning permission or comply with legislation for other consent.

Recommendations
No further surveys required. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice. Any building/tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and scrub to be removed should be undertaken by a suitably qualified ecologist, immediately prior to clearance. All active nests will need to be retained until the young have fledged.

For full justification of these recommendations, please go straight to section 4.0 Conclusions, Impacts and Recommendations**. Otherwise, the full report starts below.**

Contents

1.0 Introduction and Context

1.1 Background

The building at Ash Croft is a small block-built structure that has been historically used as a residential property with a single storey outbuilding.

Hereafter within this report, the land encompassed by the red-line boundary of the planning application is termed **'the Site'** or **'the Application Site'**.

1.2 Site Context

A bat survey has been deemed necessary due to the nature of the proposed works and location of the site. In addition, the presence or absence of Barn owl and nesting birds has been taken into consideration, along with other local wildlife.

1.3 Scope of the report

This report provides a description of all features suitable for roosting bats, and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with current wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. Due to the transient nature of bats, this report is not able to definitively ascertain the absence of bats, rather the absence of *evidence* of use by bats either prior to or at the time of the survey.

To achieve this, the following steps have been taken:

- A desk study has been carried out, including information from local wildlife groups, MAGIC and NBN Atlas websites.
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals
- A nocturnal bat activity survey has been carried out to determine the presence of roosting bats.
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing if appropriate

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2 (where available), desk study results are provided in the Appendix 3 and a summary of relevant legislation can be found in Appendix 4.

The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

2.0 Methodology

2.1 Desk Study methodology

Prior to attending the Site, desk and internet based resources were used to obtain background information about known bat occurrences in an approx. 2km surrounding radius.

The resources used for the desk study were as follows:

- Bing Maps (www.bing.com/maps) and Google Earth 8 (http://earth.google.co.uk) for aerial photographs
- Multi-Agency Geographic Information for the Countryside (MAGIC) collaborative database website (http://magic.defra.gov.uk/MagicMap.aspx), for information on statutory designations.
- National Biodiversity Network (NBN) Gateway (www.nbn.org.uk), for collated low-resolution records of protected and priority species occurrence.
- Bing Maps (www.bing.com/maps) for a 1:25,000 Ordnance Survey map extract.
- Local bat care group for local knowledge on known roosts.

2.2 Site Survey methodology

All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable and for signs of bat activity.

For any surveyed buildings:

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope & torch. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

2.3 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Table 1 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

2.5 Limitations – evaluation of the methodology

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study.

The survey was carried out outside the main activity season for bats (May to September being deemed the main activity season). No Internal inspection was made of the residential building. Therefore, the conclusions drawn are based on the range of evidence available.

3.0 Results and Evaluation

3.1 Desk Study Results

The site is located at National Grid Reference SD 72269 45755.

3.2 Designated sites

The site is within the Forest of Bowland Area of Outstanding Natural Beauty (AONB), and the application should be made available for comment by the AONB office.

3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database (App. 3) and OS maps has been undertaken. Collated together, the site's local habitat relevant to bat populations is described below:

The site is located within a small hamlet in a rural agricultural setting, with further agricultural and converted residential buildings in close proximity. The landscape is dominated by large fields of pasture and grass crops, with hedges, woodland and tree lines around the area, which could be used for foraging and commuting by bats. Adjacent to the south is the large stretch of ancient semi-natural woodland known as "Feazer Wood" which follows Waddington brook south towards Waddington and on to the River Ribble. This habitat together with Cuttock Clough to the north will be an important local food and refuge resource for bats. Other habitats including semi-improved grassland, areas of deciduous woodland and irrigation ditches around the area will also provide abundant insect foraging for bats.

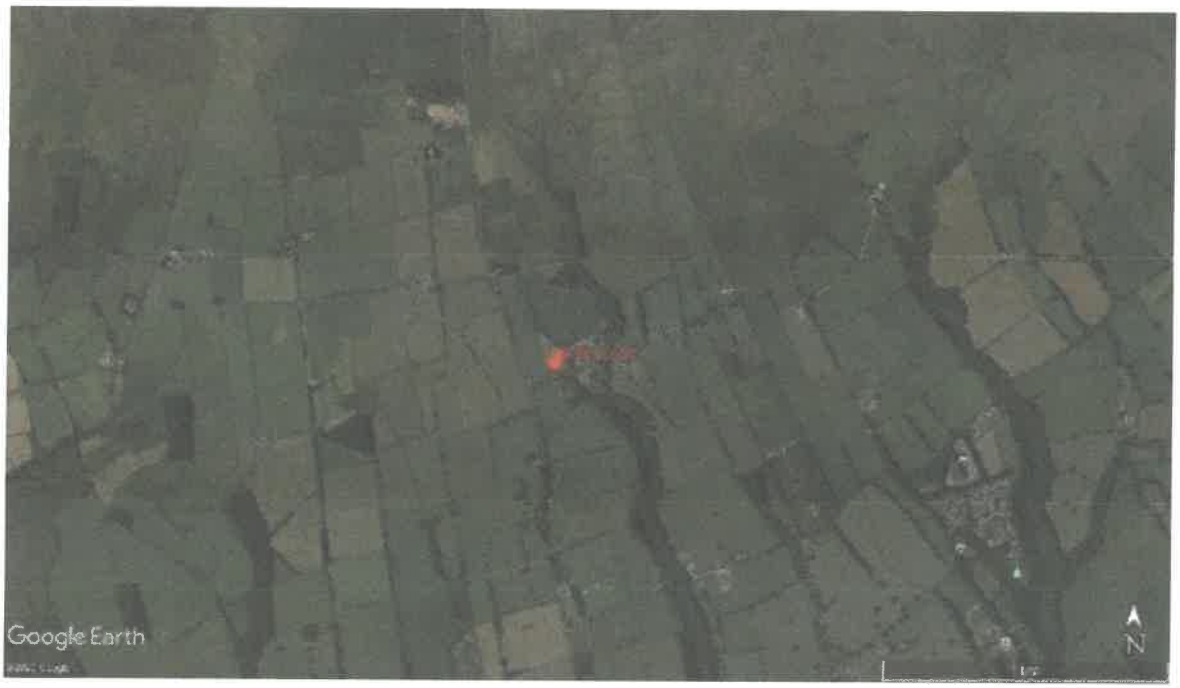


Figure 1: Aerial photo of site, showing surrounding landscape structure

3.4 Historical records

The East Lancashire Bat Care group and MAGIC records of a 2km site radius show that there are records of common crevice dwelling and void dwelling bat species present within the study area, including common pipistrelle *Pipistrellus pipistrellus,* soprano pipistrelle *Pipistrellus pygmaeus, myotis* species, noctule bat *Nyctalus noctule,* and Brown long eared bat *Plecotus auratus.*

A search of the magic database shows one granted European Protected Species Mitigation Licences (EPSMLs) to destroy a breeding/resting place for both common and soprano pipistrelle bats within a 2km radius of the survey site.

These results indicate that there are multiple species of bat in the vicinity of the Site, indicating it is an area of important foraging and breeding habitat for the bat population in this locality.

3.5 Field Survey Results

The survey was undertaken on 28/10/2020 by Carol Edmondson (Natural England bat licence number: **2015-12195** CLS-CLS), an MSc qualified ecologist with 8 years' experience in specific bat habitat surveying.
There are two survey buildings on the site which are illustrated in the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 2.

Table 2: Environmental variables during the survey

Date: 02/10/2020	
Temperature	15°C
Cloud Cover	100%
Wind	4 - 7km/h
Rain	Sporadic heavy showers

3.6 Site Feature descriptions and photos

Building Description The residential and out building are mainly rendered cement block construction, with timber cladding to some elevations. The roof of both buildings is felted plywood. The main area of roof is flat with a low dual pitched section to the outbuilding, the ridge running north – south.	 Photo 1: North elevations of house and outbuilding, showing roof pitches.
The south elevation is fronted by large mature alder trees, and some large conifers.	 Photo 2: South elevation, showing mature trees and shrubs.

The south elevation of the outbuilding is timber clad, with an "up and over" garage door. The door and cladding are all in a reasonable state of repair with no gaps in materials allowing ingress to the interior by bats or birds.	 Photo 3: South elevation of the outbuilding.
The windows of the residential building are uPVC and close fitting.	 Photo 4: uPVC windows to the north elevation..

The soffit boxes and roofing materials are all in a good state of repair, with no gaps or missing or rotting materials.	 Photo 5: Example close-up of soffit boxes and eaves
The front (south) elevation of the property has uPVC windows, and timber cladding. All materials are in a good condition, with no gaps or niches typically used by roosting bats. The mature trees and shrubs to the front of the property, whilst having low potential for roosting bats, have good potential nesting and foraging habitat for the local breeding bird population.	 Photo 6: South elevation of property, with mature trees in the background.

One section of the outbuilding has a metal sheet roof, and timber cladding. Only one gap was visible to the inside, and there were no signs that this has been used by bats, such as grease marks or urine staining.	 Photo 7: Rear of open outbuilding.
Interior. Internally, only part of the outbuilding was inspected. The main outbuilding is in a good state of repair with no gaps to the outside visible. The timber roof construction was visible in the section surveyed. The space is light and airy, with open access to the front.	 Photo 8: Internal view of the roof construction.

Evidence of bats There was no evidence of bats using these buildings.	

Breeding birds and other incidental observations

In the open section of the outbuilding there is a swallow nesting cup and nesting material close by, suggesting that this building is used by breeding swallows or other birds.	 Photo 12: Swallow nest cup and adjacent nesting materials

4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Bats and their roosts are protected under the Wildlife and Countryside Act and Conservation Regulations; see Appendix 3 for a summary of legislation protecting bats in the UK. Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommends additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European Protected Species Mitigation Licence (EPSML) application with Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least on the surveys should be a dawn re-entry survey (Collins, J. 2016).

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommends additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence/likely-absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016). The survey effort recommended at this stage is iterative and if bats are recorded emerging from the

buildings, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice.

Appropriate justification for this assessment is provided in Section 3 *Survey results* of this report.

4.2 Evaluation

Taking the desk-based assessment and site survey results into account, the following value for roosting bats has been placed on The Site.

Table 3: Evaluation Summary

Survey assessment conclusions (with justification)	**Foreseen impacts**	**Recommendations**	**Enhancements** The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99
The nature and condition of these buildings show that they have a **negligible** likelihood of supporting roosting bats.	Bats are unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats as a result of the proposed works	No further surveys. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice.	The installation of a minimum of 2 bat boxes on the buildings when finished will provide additional roosting habitat for bats e.g. • 2F Schwegler Bat Box • 1FF Schwegler Bat Box • Kent Bat Box. Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance.

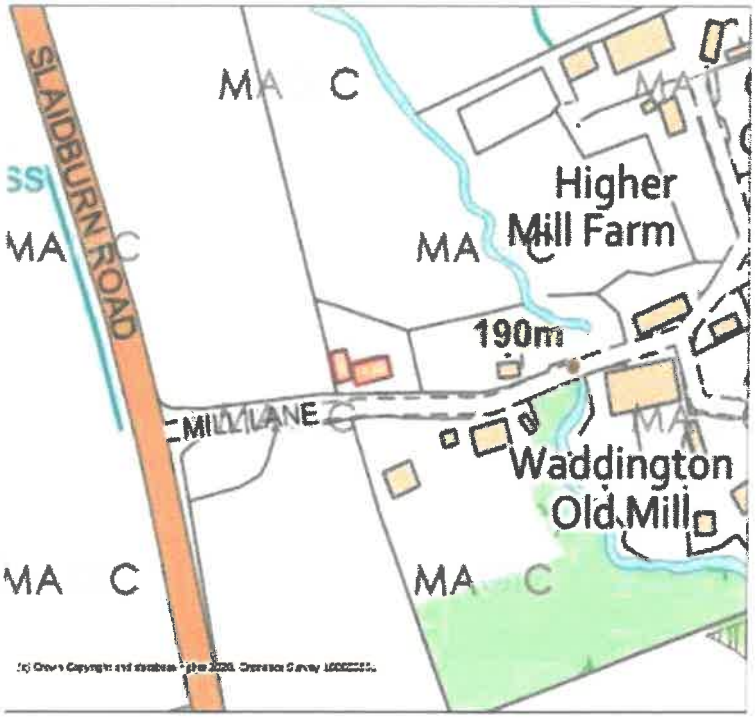
This building contains evidence of nesting birds. .	Active nests could be destroyed during building/vegetation removal. Any works which affect The Site could have an impact on nesting birds.	Any building/tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and scrub to be removed should be undertaken by a suitably qualified ecologist, immediately prior to clearance. All active nests will need to be retained until the young have fledged.	Install a minimum of two bird boxes on retained trees/buildings on site e.g. Schwegler swallow nest cups, placed under the eaves Schwegler 1SP Sparrow Terrace Schwegler 1B nest boxes Schwegler 2H Robin Boxes Nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight.

5.0 Bibliography

- Bat Conservation Trust: http://www.bats.org.uk/
- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth Pro (2020) accessed on 02/10/2020.
- Magic database (2019) http://www.magic.gov.uk/MagicMap.aspx accessed on 02/10/2020.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- NBN Atlas (2019) https://records.nbnatlas.org/explore/your-area accessed on 08/04/2019

Appendix 1: Survey Plan

MAGIC **Survey map Ash Croft**



Area surveyed marked in red outline

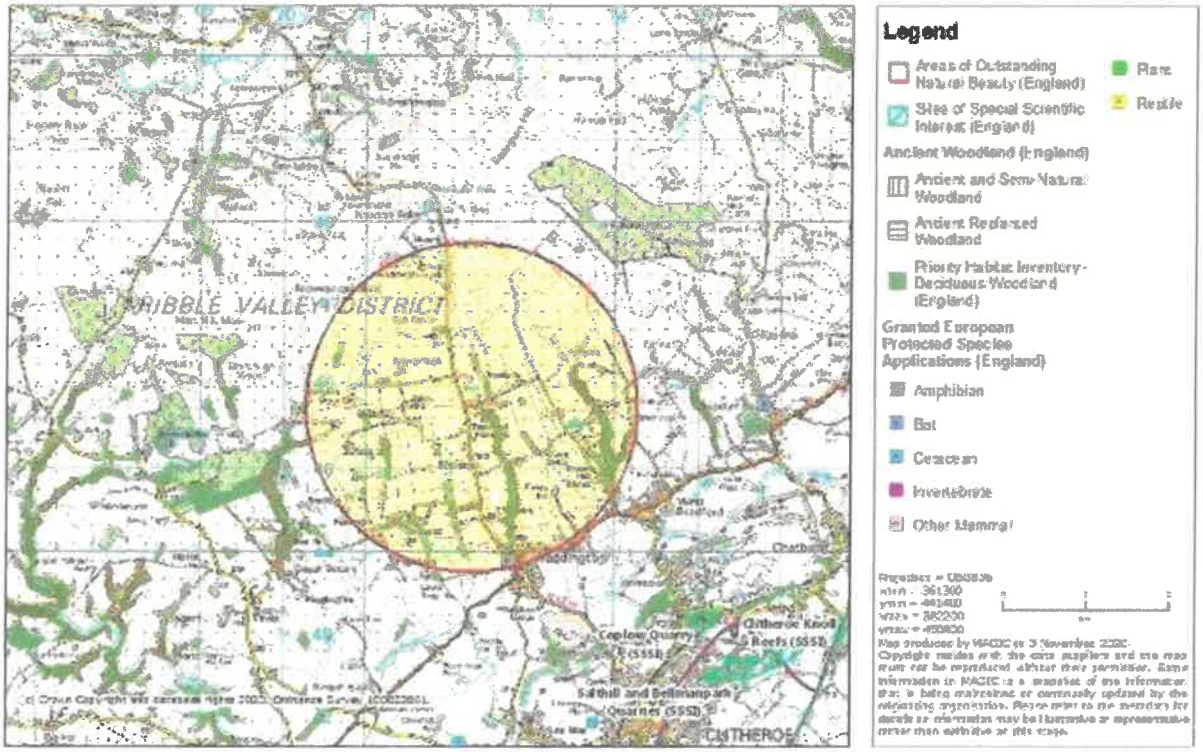
Appendix 2: Proposed Site Plan

Not supplied

THE PROPOSED SITE PLAN DWG NO 003 IS ENCLOSED WITH THE PLANNING APPLICATION

Appendix 3: Desk Study Information

MAGIC **Habitats & designations Ash Croft**



Appendix 4: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young

  (ii) to hibernate or migrate

  b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant statutory authority (e.g. Natural England) will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.