Preliminary Roost Assessment Bat Survey

Causeway Farm, Longsight Road, Balderstone, Blackburn, Lancs BB2 7HZ

J & S Douglas

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Executive summary

Carol Edmondson of Ark Ecology undertook a Preliminary Roost Assessment at Causeway Farm, Longsight Road, Balderstone, Blackburn, Lancs BB2 7HZ on 9th August 2017. The aim of the assessment was to consider the value and suitability of the structures for roosting bats.

The development proposals are for the conversion of outbuilding to a cattery. A planning application is being prepared for submission to Ribble Valley Borough Council.

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

Survey feature	Recommendations
B1	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.

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

Ark Ecology were commissioned by J & S Douglas to undertake a Preliminary Roost Assessment (PRA) at Preliminary Roost Assessment at Causeway Farm, Longsight Road, Balderstone, Blackburn, Lancs BB2 7HZ. The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

No previous reports have been produced for this site by Ark Ecology.

1.2 Site Context

The site is located at National Grid Reference SD 64464 31561, and comprises an area of approximately 1.2ha. There are 6 buildings within the site boundaries. 1 building was surveyed as this will be effected by the proposed development.

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 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. To achieve this, the following steps have been taken:

- A desk study has been carried out
- 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
- 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.

1.4 Project Description

This report is prepared in support of a planning application that is being prepared for submission to Ribble Valley Borough Council.

The proposed development is described as: Conversion of outbuilding to a cattery.

The proposed site plan is included in Appendix 2 (where available).

2.0 Methodology

2.1 Desk Study methodology

Existing bat records relating to the site and a surrounding 2km radius (the study area) may be required to conform with national guidelines and these may need to be requested from Lancashire Environmental Records Centre. The data search is confidential information that is not suitable for public release.

A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth and OS maps
- Designated sites, habitat and granted EPSL records held on Magic.gov.uk.

2.2 Site Survey methodology

The survey was undertaken by Carol Edmondson (Natural England bat licence number: **2015-12195** CLS-CLS) on 09/08/2017.

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 for bats and signs of bat activity.

<u>For any surveyed buildings:</u>

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building(s) for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including the living areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope, torch and ladders. 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.

<u>For any surveyed trees</u>

A visual inspection from ground level using binoculars and where accessible an internal inspection of suitable roosting features using an endoscope, torch and ladders.

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 Tables 1 and 2 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.

Table 2: Features of a tree that are correlated with use by bats

Likelihood of bats being present	Feature of tree and its context
Higher	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Lower	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

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.

There were no specific limitations to the survey regarding internal access, exterior visibility, safety from biotic (e.g. wasps) or abiotic (e.g. asbestos) sources or adverse weather. Therefore, the survey was carried out to its fullest extent, and the conclusions based on the maximum range of evidence.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results are provided below; full details are included in Appendix 4.

3.2 Designated sites

There are no statutory designated sites and no non-statutory sites within the study area, but the study area lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone. Their location and extent are illustrated in Appendix 4. Table 3 provides details of the designated sites including their reasons for notification.

Table 3: Designated sites within 2km radius of the site

Designated Site Name	Distance from Site (approx.)	Reasons for Notification from Natural England and/or BRD or LPA policy maps
Statutory Sites		
Darwen River section and Red Scar & Tun Brook Woods Site of Special Scientific Interest (SSSI) Impact Risk Zone	Within study area	To assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England). Proposal is not significant enough to impact on SSSI.
Non-statutory Sites		
None known	N/A	N/A

3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database and OS maps has been undertaken. Collated together, the site's local bat habitat is described below:
The site is in a rural area north of Blackburn in Lancashire. The landscape is dominated by pasture fields and hay meadows, with the village of Mellor and Mellor Brook extending adjacent to the south. There are small, scattered woodland copses and tree lines around the area, which could be used for foraging and commuting. One area of ancient woodland is located ~1km to the west that could be an important local habitat for bats. Scattered irrigation ditches around the area will provide abundant insect foraging for bats.

Priority habitats within 2km of the site are listed in Table 4.

Table 4: Priority Habitat Inventory within 2km (Magic.gov.uk):

Habitat	Closest distance from site
Deciduous Woodland	~590m west
Ancient woodland	~650m west
Woodpasture and Parkland BAP Priority Habitat	~745m north-east

Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical records

A search of the magic database for granted European Protected Species Mitigation Licences (EPSMLs) for bats within a 2km radius found no licenced sites.

3.5 Field Survey Results

There is one survey building. This building is designated as B1 and is illustrated in the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 5.

Table 5: Environmental variables during the survey

Date: 09/08/2017	
Temperature	20°C
Cloud Cover	90%
Wind	2km/h
Rain	None

3.6 Site Feature descriptions and photos

Building B1 Description

B1 is a single storey, brick built detached outbuilding. The roof is comprised of corrugated sheets with a single pitch running from east to west. There are no doors on the entrance at either west/east elevation, Some windows on the south elevation are boarded over, the remainder are unglazed. There is a single timber fascia board on all elevations at the eaves and gable ends, which is in poor condition. There is daylight visible to the top of this board in most sections and all closed sections were inspected by endoscope. There are a few gaps to the mortar of the brickwork which were mainly covered by cobwebs, and also inspected by endoscope.

Photo 1: West and south elevation (B1).

Photo 2: Southeast corner.

Photo 3: North elevation.

Photo 4: Example of web covered mortar gaps inspected by endoscope.

Photo 5: Example of gap to fascia board inspected by endoscope.

Interior

Internally the building is open to the roofing materials. The walls are topped by a timber beam which is close fitting, with gaps above to the outside in the corrugations of the roof materials.

Photo 6: Interior B1.

Photo 7: Timber beam at wall tops.

Photo 8: Unglazed windows.

Evidence of bats

No evidence of bats was located internally or externally during the survey. There were no signs of use by bats around any of the external brickwork gaps, or internally.

Breeding birds and other incidental observations

A disused bird's nest is present on the lintel to the western doorway in the building.

The barn is not suitable for nesting barn owls. The open fields and hedgerows to the north, east and south of the site however provide suitable foraging areas for this species. No evidence of barn owls was recorded in this building during the survey.

Photo 9: Bird's nest in B1

4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Bats 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 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 and Tables 1 and 2 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 each site survey feature.

Table 8: Evaluation of buildings/trees on site

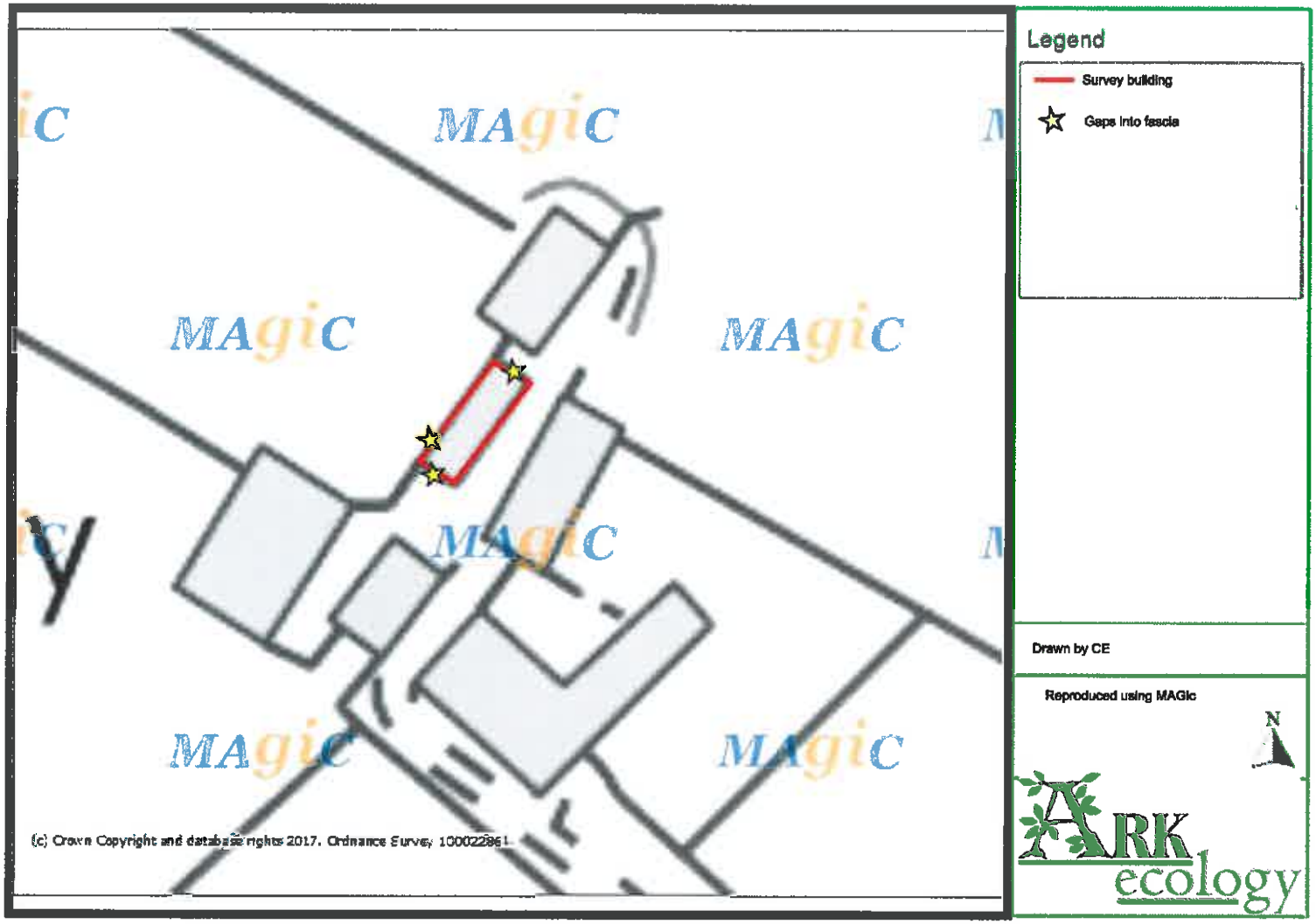
Ref	Survey assessment conclusions (with justification)	Foreseen Impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99
B1	A full inspection of all crevices was carried out by torch and endoscope with no evidence of use by bats found. The building is very light and draughty, being open at both ends, and the windows. Therefore it is concluded that this building has a **negligible** likelihood of supporting roosting bats.	Bats are very 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 two Schwegler bat boxes on mature trees around the site boundaries will provide additional roosting habitat for bats e.g. 2F Schwegler Bat Box 1FF Schwegler Bat Box 2FN Schwegler 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.

B1	This building contains evidence of nesting birds.	Active nests could be destroyed during building renovations.	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/trees and scrub to be removed should be undertaken immediately prior to clearance. All active nests will need to be retained until the young have fledged.	Install two Schwegler bird box on retained buildings on site e.g. Schwegler No 17 swift nest box 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. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.

5.0 Bibliography

- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2012). 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 (2017) accessed on 08/08/2017
- Magic database (2017) http://www.magic.gov.uk/MagicMap.aspx accessed on 08/08/2017.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan



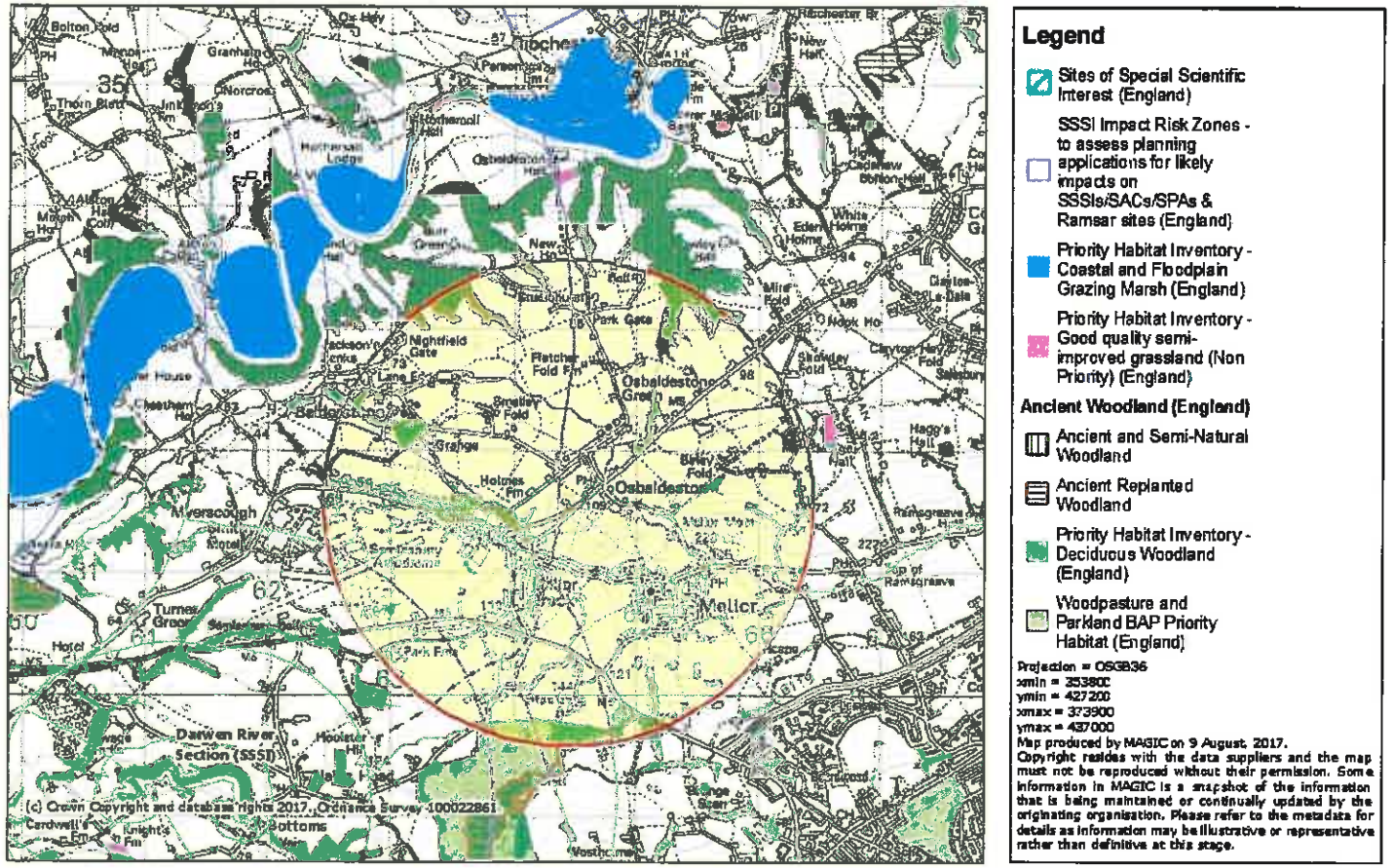
Appendix 2: Proposed Site Plan

None provided

Appendix 3: Desk Study Information

Full historical records can be provided on request.

MAGIC Designated sites & Priority habitats within 2km radius



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.