Preliminary Roost Assessment Survey

Crestview, 47 Dartmouth Park Hill, Kentish Town, Camden, London NW5 1JB

Waldon Telecom

Status	Issue	Name	Date
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Executive summary

Arbtech Consulting Ltd was commissioned by Waldon Telecom to undertake a Preliminary Roost Assessment (PRA) at Crestview, 47 Dartmouth Park Hill, Kentish Town, Camden, London NW5 1JB. The survey was completed on 20/01/2021. The aim of the assessment was to consider the value and suitability of the structures for roosting bats. 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.

The development proposals are the installation of a phone mast atop a high-rise building, to comprise assorted steelwork to accommodate 6No. antenna apertures & 4No. 600mm dishes; installation of 9No. cabinets and ancillary development thereto .A planning application is being prepared for submission to London Borough of Camden.

No further surveys required

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd was commissioned by Waldon Telecom to undertake a Preliminary Roost Assessment (PRA) at Crestview, 47 Dartmouth Park Hill, Kentish Town, Camden, London NW5 1JB. 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 Arbtech Consulting Ltd.

1.2 Site Context

The site is located at National Grid Reference TQ 2893 8621 and has an area of approximately 0.1ha. There are 2 buildings and 2 trees within the site boundary. One building was surveyed as this will be affected 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 the requirements of a European Protected Species Mitigation Licence (EPSML) application if appropriate.

A survey plan is presented in Appendix 1, proposed plans in Appendix 2, desk study results in Appendix 3 and a summary of relevant legislation is presented in Appendix 4.

1.4 Project Description

The development proposals are the installation of a phone mast atop a hi rise building to include assorted steelwork to accommodate 6No. antenna apertures & 4No. 600mm dishes; installation of 9No. cabinets and ancillary development thereto .A planning application is being prepared for submission to London Borough of Camden.

2.0 Methodology

2.1 Desk Study methodology

The desk study included a 1km radius review of statutory and non-statutory designated sites (10km for European sites), Biodiversity Action Plan (BAP) Priority Habitats and granted EPSML records for bats held on Magic database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth. OS maps and historical maps where needed.

Existing bat records relating to the site and a surrounding 2km radius are required to conform to national guidelines. To date this has not been authorised by the client. Where this is the case, assessments are made in a manner that compensates for their lack.

2.2 Site Survey methodology

The survey was undertaken by Fay Brotherhood BSc (Hons) MSc, Accredited Agent on Natural England Bat licence number (2018-33540-CLS-CLS).

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.

For any surveyed buildings:

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, mirror, torch and ladders. The surveyor paid particular attention to the floor, stored items 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.

For any surveyed trees:

A visual inspection from ground level using binoculars and where accessible and safe to do so, an internal inspection of potential 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, older houses with multiple potential roost features 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

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 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.

A biological records data search was not commissioned by the client; therefore, historical records of protected species have not been factored into this report. The recommendations in this report aim to compensate for the lack of biological records.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results are provided below, full details are presented in Appendix 3.

3.2 Designated sites

Details of any statutory and non-statutory designated sites within a 2km radius of the survey site, including their reasons for notification, are provided in Table 3 below.

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		
None		
Non-statutory Sites		
Dartmouth Park and Dartmouth Park Hill Reservoirs (Borough importance SINC)	72m north west	*Two covered reservoirs were constructed on Dartmouth Park Hill in 1855 by the New River Company and connected to its new waterworks and pumping station by Stoke Newington reservoirs. Dartmouth Park was laid out on the edge of the reservoirs and opened to the public in 1972. The land slopes steeply to the north and the east of the reservoirs, which are now covered with grassland. The top of the slope gives a bird's eye view over south-east London. The park has an enclosed seating area surrounded by a hedge, which local children helped to plant in 1991.*
No other sites known		

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 suburban North London. The gardens are large with plentiful tree cover, in which urban bats will find foraging opportunities and commuting routes around the landscape via linear strips of garden habitat. These provide connectivity to open spaces and woodland, blocks of which are scattered throughout the study area and will provide foraging and roosting opportunities. The open grassland, water and woodland mosaic of Parliament Hill and Hampstead Heath stretches from north to south past the western side of the study area and this will be an important site for local bats. The eighth in a row of closely sited lakes in Hampstead Heath is sited 920m to the east and there is a network of three waterbodies located around 900m to the north in Waterlow Park, which with Highgate cemetery is another area that may be of local foraging importance.

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 (approx..)**
Traditional orchards	420m west
Lowland heath	670m west
Good quality semi improved grassland	600m west
Woodpasture and parkland	920m north west
Deciduous woodland	500m north

Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical records

Existing bat records relating to the site and a surrounding 2km radius are required to conform to national guidelines. The data search is confidential information that is not suitable for public release. The client has been advised that biological records data for the local area is necessary to facilitate a complete assessment. To date Arbtech Consulting Limited has not been authorised to purchase these records. The local planning authority (LPA) may request that bat records data are obtained and these can be incorporated into the report at a later date, however as the development is small-scale it is considered that a sound judgement on bat habitat value can be made without the BRD.

Table 5: Historical records of bats within 2km of the site*

Common name	Scientific binomial	Number of records	Number of roost records	Maternity roost records
No data authorised				

*Records from the past 10 years

A search of the Magic database for granted European Protected Species Mitigation Licences (EPSMLs) for bats within a 2km radius of the site and details are provided in Table 6. The EPSML record search returned no results.

Table 6: Granted EPSMLs (bats) within 2km of the site

Case reference of granted application	Approx. distance from site	Bat Species Effected	Licence Start Date:	Licence End Date:	Impacts allowed by licence
None known					

3.5 Field Survey Results

1 building on site was surveyed, designated as B1 and illustrated in the map in Appendix 1. The weather conditions recorded at the time of the survey are shown in Table 7.

Table 7: Weather conditions during the survey

Date: 20/01/2020	
Temperature	9°C
Humidity	75%
Cloud Cover	100%
Wind	5mph
Rain	None

3.6 Site Feature descriptions and photos

B1 – General description

B1 is a semi-detached block of high rise flats, 6 storeys high. The building has a flat roof with an small access room.

B1 – southern and western elevation

B1 – western elevation

B1 – eastern elevation

B1 Exterior

B1 - roof

The roof is flat and lined with mineral felt. This has been replaced in recent years and fits tight with no gaps that may be used by bats. There is a raised concrete sill running along the edges.

The roof is exposed to high levels of wind.

Historically a phone mast was sited here.

To the south the building overlooks a predominantly urban landscape. There is a church nearby and other older buildings with potential roost features.

To the north the gardens have more tree cover which is arranged linearly, creating routes to the large block of woodland on the northern horizon. Any bats emerging from the site would need to cover considerable open space before reaching the trees, rendering them vulnerable to predation.

There are brick built structures built into the roof from which wiring has been ran.

There is a hole in the mess grill over one of these, which could provide access to the cable route.

B1 – chimney

There is a single chimney on the north western corner of the building. This appears to be in overall condition. There is one piece of broken brick but this doesn't create a substantial gap.

B1 – access tower (southern and western elevations).

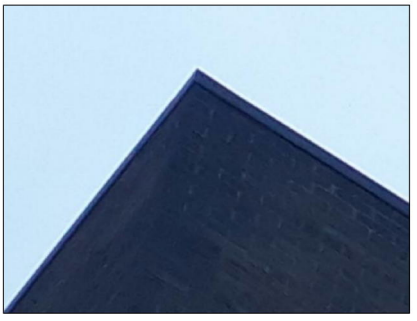
A small building comprises the only "loft space" in the building and hosts boiler equipment and access from the top floor ceiling. This is concrete built and rendered, with pvc cladding on the southern aspect. There is a narrow strip of steel flashing overhanging the top of the roof which provides a minor gap.

B1 – access tower (eastern and northern elevations).

Whilst the steel flashing does create a crevice, this is unlikely to provide suitable microclimatic conditions for roosting bats.

B1 – There is access to the internal building via ventilation pipes, however these are unlikely to lead to suitable roosting features.

B1 – The roofing felt overhangs the roof by several inches. This appears to be fit well but there are likely to be minor gaps along its length, some of which may be large enough to permit bats to roost. Exposure and microclimatic conditions mean this would likely involve individual pipistrelles rather than a maternity or other significant colony

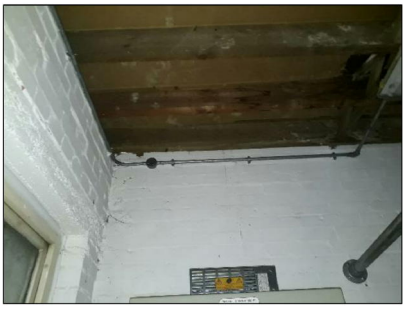


B1 – The brickwork around the building appears to be in sound condition with no gaps or cracks in the main body of the building or around the modern uVPC windows. There are flat roofed garages attached to the lower levels and these have no features of use to roosting bats.

B1 – internal

The access tower is split into two rooms, containing various infrastructure. The ceiling has timber beams and there are gaps over the brickwork providing some roosting value, however no light gets in and there are no visible access routes, although there are signs of damp on walls.

No evidence of bat rooting activity was found in the form of droppings or deeding signs.



4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Bats are protected under the Wildlife and Countryside Act and Conservation Regulations (see Appendix 4 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). If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, 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 for further advice.

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 building 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 (July 2018)**
B1	The building has **negligible** habitat value for roosting bats. There are some minor features that bats could use, but these are low quality and in their environmental context are unlikely to provide suitable microclimates. Any crevice dwelling bats using these features would be exposed to high levels of wind on emergence and re-entrance and would be forced to navigate a long journey through open space to reach suitable garden habitat. There are more suitable roosting opportunities within the area.	There is an acceptably low risk that bats are roosting within this building and none of the features identified are to be removed or destroyed. As such, there are not anticipated to be any impacts on bats as a result of the proposed works.	No further surveys required.	The installation of a minimum of two bat boxes on the building will provide additional roosting habitat for bats e.g. Improved crevice bat box Improved cavity bat box Bat boxes should be positioned 4-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance.
B1	No evidence of breeding birds was found during the survey, however the site could be attractive to traditional cliff top nesters such as gulls or peregrine falcons.	No evidence is present that raptors or gulls have ever nested on the roof but were they to choose to do so in the future, active nests could be destroyed or disturbed during the works.	A close inspection of the building should be undertaken immediately prior to the commencement of work. Roof top works will need to be delayed until the fledglings of any nests have flown the nest.	Install woodstone swift nest boxes bird boxes at least 5m high. Vivara pro woodstone house sparrow terrace box. Sparrow Terraces should be positioned 3-5m high. Avoid locations which receive long periods of direct sunlight throughout the day.

5.0 Bibliography

- 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 (2020) accessed on 21/01/2021.
- Magic database (2020) http://www.magic.gov.uk/MagicMap.aspx accessed on 20/01/2021.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan

Appendix 2: Proposed Site Plan

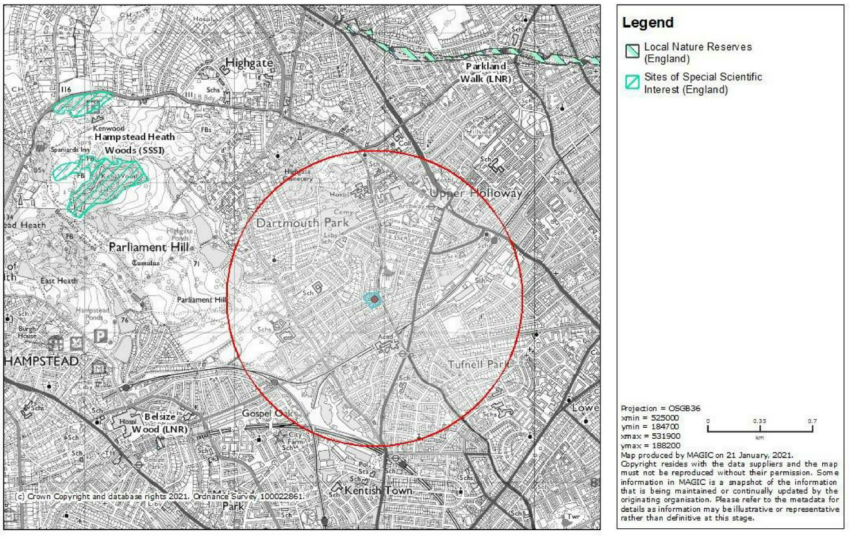
None provided by client

Appendix 3: Desk Study Information

Full historical records can be provided on request.

MAGiC

Statutory sites



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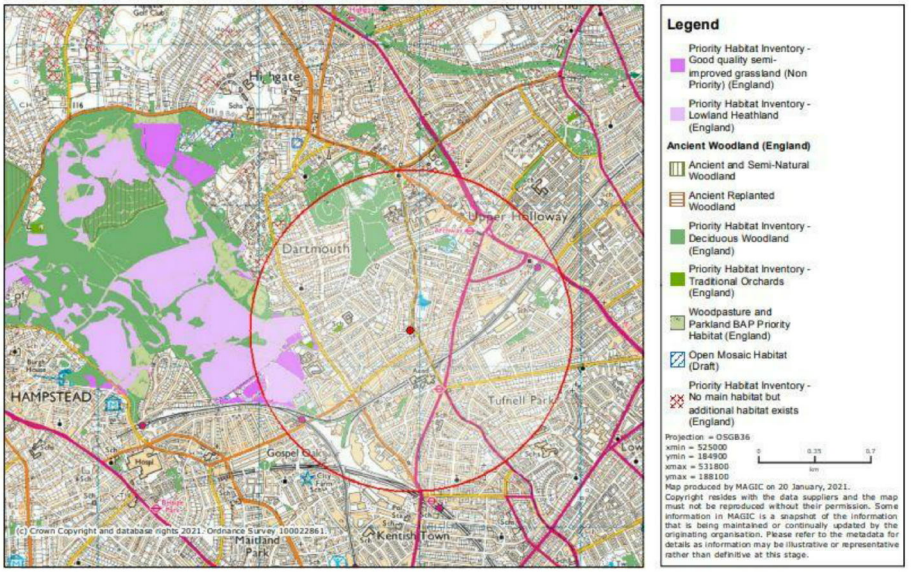
Priority Habitats



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 2017*** through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

(a) Deliberately captures, injures or kills any wild animal of a European protected species,

(b) Deliberately disturbs wild animals of any such species,

(c) Deliberately takes or destroys the eggs of such an animal, or

(d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

(a) To impair their ability:

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

(ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or

(b) To affect significantly the local distribution or abundance of the species to which they belong.

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

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2017

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 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.

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by 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).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. ***include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;***
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.