Preliminary Bat Roost Assessment

Site: Ivy Cottage, off York St, Clitheroe

7th November 2023

CLIENT:

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Church street
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Summary

This report presents the results of a daylight potential bat roost assessment (PRA) undertaken on November 6th 2023, at Ivy Cottage, off York Lane, Clitheroe. The work has been commissioned in connection with a proposed planning application to renovate the building to form a single dwelling.
The scope of the survey has primarily considered roosting and hibernating bats, breeding birds and barn owls.

In summary, the survey outcome shows no evidence of historic use by bats, and has identified that there is negligible potential habitat value on site for any bat species. However, a precautionary approach should always be used when demolishing/converting buildings due to the transient nature of bats. The site is not suitable for use by barn owls, and no evidence was found on the site.

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

Recommendations: Bats
No further surveys required. No Further Surveys. **However**, as there is little research or evidence of how bats use such dense ivy, a precautionary approach will be taken. Ideally carried out outside the peak bat activity season (Mid-May – Mid September), the upper sections of the **ivy and any roofing materials if/when removed will be done under the supervision of a suitably qualified ecologist**. One bat box will be placed on the building where the ivy is removed to provide roosting space for any transient bats that may rely on the habitat occasionally. Also, 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.
Recommendations: Birds
Any building works, or ivy 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 ivy 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

Carol Edmondson of Ark Ecology was commissioned by Mrs Stacey Bailey to carry out a Potential Bat Roost Survey (PRA) at Ivy Cottage, Clitheroe in November 2023. A previous survey was carried out by Ark Ecology in August 2021.

Ivy Cottage is a partially renovated two storey cottage with garage & storage space on the ground floor, set in a courtyard of similar dwellings in the town centre of Clitheroe, Lancashire.

Hereafter within this report, the land encompassed by the red-line boundary of the survey map (appendix 1) is termed '**the Site**'.

1.2 Context

A bat survey has been deemed necessary to support a planning application for renovation works, 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
- 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.

The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2023).

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 habitat and occurrences in an approx. 2km surrounding radius.

The resources used for the desk study were as follows:

- Google Earth Pro (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.
- 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 (Mid-May to September being deemed the main activity season) and the conclusions drawn are based on the range of evidence available.

3.0 Results and Evaluation

3.1 Desk Study Results

The desk study includes a 2km buffer zone surrounding The Site.

The Site is located at National Grid Reference SD 74501 42037.

3.1.1 Designated sites

The Site itself is not within any designated areas, however Crosshill Quarry Local Nature Reserve, Salthill and Coplow Quarry Sites of Scientific interest (SSSI) are within the 2km study area. The proposal will not have an impact on any Sites of Scientific interest or other designated statutory sites.

3.1.2 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database (App. 3) and OS maps has been carried out. The Site and its surrounding landscapes' relevance to bat habitat is described below:
The site is located in the centre of Clitheroe, East Lancashire in a residential courtyard. The Castle grounds and park located 375m south west, Primrose Mill Local Nature Reserve at 950m south, and the river Ribble at 1125m west offer good potential foraging habitat for bats in the urban landscape. The wider rural landscape of pasture and meadows with hedges, and small areas of deciduous woodland could also be used for foraging and commuting by bats.

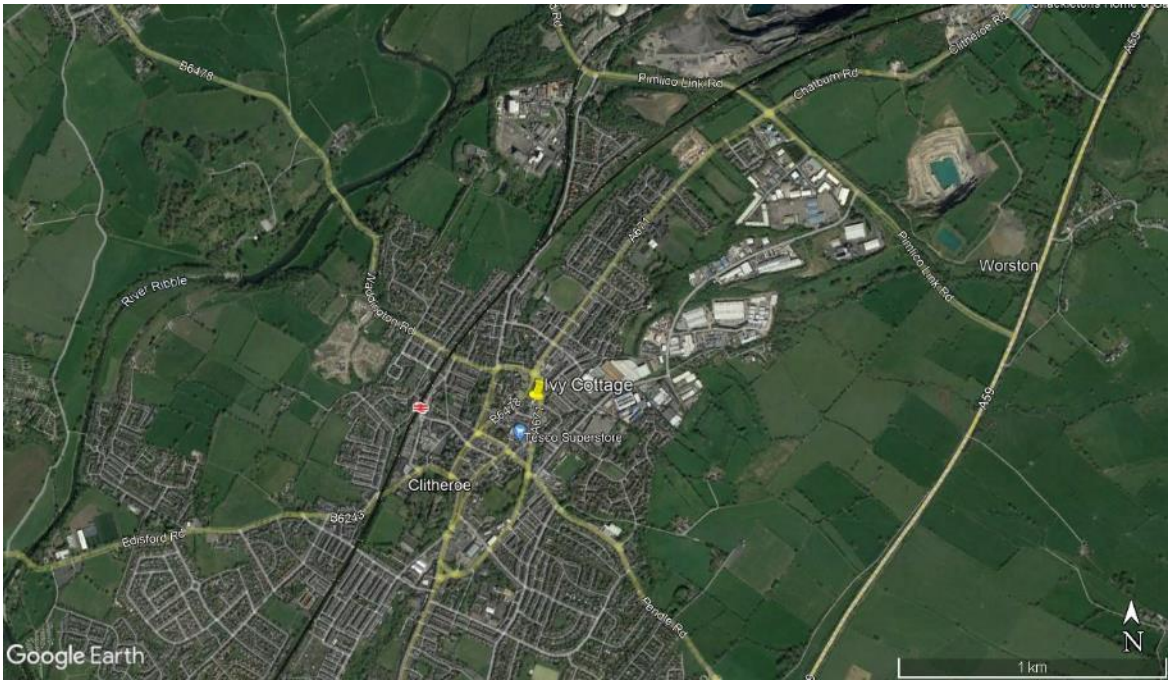


Figure 1: Aerial photo of site, showing surrounding landscape structure

3.1.3 Historical records

A search of the magic database shows no granted European Protected Species Mitigation Licences (EPSMLs) within a 2km radius of the survey site.

Local bat care group records show the presence of both common and soprano pipistrelle bats within close proximity of The Site. This shows the historic presence of these bats within the survey area.

3.2 Field Survey Results

The survey was undertaken on 25/08/2021 by Carol Edmondson (Natural England bat licence number: **2015-12195** CLS-CLS), an MSc qualified ecologist with 11 years' experience in specific bat habitat surveying.
The survey was carried out using a high-powered torch, binoculars and endoscope where necessary.
There is one survey building on the site which is 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: 06/11/2023	
Temperature	10°C
Cloud Cover	85%
Wind	4 km/h
Rain	Light showers

3.2.1 Site Feature descriptions and photos

Building Description The building is a two-storey stone built and rendered cottage property. The heavy ivy *hedera sp.* covering to > 50% of the fasci front (south) elevation has been removed with some remnants on the southwestern elevation. The ground floor has an up and over garage door entrance, as do the attached garages. The timber framed windows around the property are in reasonable repair and close fitting.	 Photo 1: Southeast (front) elevation showing ivy covering and garage door on ground floor.
	 Photo 2: Southeast (front) elevation showing attached garages door on ground floor.

The roof is dual-pitched with the ridge running northeast to southwest, and is clad in traditional slate.

The roofing tiles are in a reasonable state of repair with minimal visible gaps or missing, slipped tiles that could be used by crevice dwelling bats.

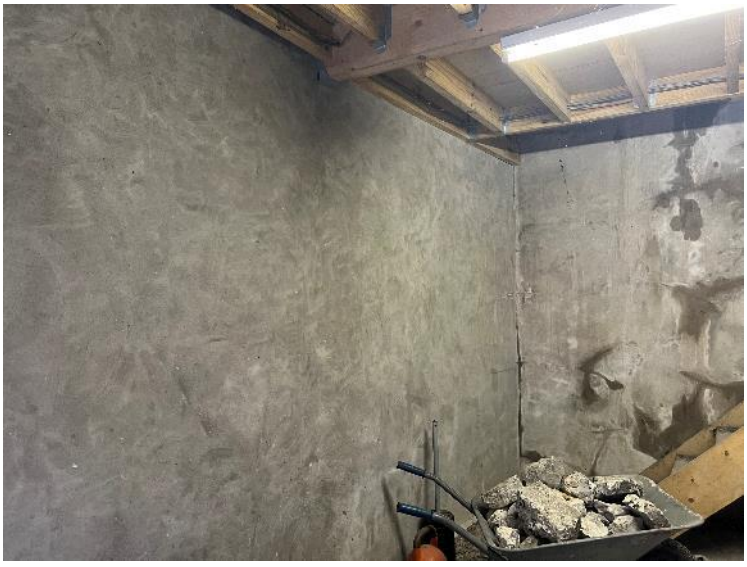
There are rooflight windows on the west elevation which appear to be a more recent addition and in a good state of repair.

The ridge tiles appear in good condition, with recent mortar repairs evident. All leadwork around the property is sound, with no gaps or crevices suitable for roosting bats.

The timber fascia boards, where visible, are close fitting with no suitable gaps for crevice dwelling bats.

Photo 3: Northwest facing roof pitch with rooflight windows.

Photo 4: Southeast facing gable end with dense ivy coverage, recently mortared ridge tiles and lead work to chimney.

The gable end on the south elevation was previously densely covered in ivy (ARK, 2021), having now been cleared on the majority of the elevation, still obscures some areas. However there are no suitable bat roost crevices in the visible parts of this fascia. The area of lead flashing that can be seen to have lifted, does not form a crevice underneath.	 Photo 4: Southwest gable end formerly covered with vigorous ivy growth.
Interior. Internally the ground floor is accessed by the up and over door and is split into two sections. There was no evidence of bats having used this space for roosting or feeding.	 Photo 5: Internal ground floor ceiling structure.

The dividing wall on the ground floor has been opened up giving access to the attached garages internally, with the internal mortar visibly sound all the way up with no gaps or crevices forming potential bat roosting spaces.

Photo 7: Internal view of roof structure in adjacent garages.

The first-floor space is dry and airy, and the roofing materials are in a good state of repair.
The roof timbers and membrane having been recently updated have no signs of damage or gaps.
The main roof truss has rotted at one end and is supported by an iron bracket.

All surfaces were inspected for bat droppings, urine or fur-grease marks.

Photo 8: Internal view of roof structure in upper storey.

Where the roof meets the wall plate the ivy has breached the joint in places, intruding into the interior.	 Photo 8: Ivy invading the interior.

Evidence of bats

There was no evidence of bats historically or currently using this building as roosting habitat.

Breeding birds and other incidental observations

There was no evidence of nesting birds within the property, however the ivy on the building and the surrounding gardens provides plentiful nesting and feeding habitat for birds.

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.

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 for presence of bats

Survey assessment conclusions	There is suitable bat foraging habitat in the proximity of this building and bat roosts present in the 2km study area. However, the nature and condition of this building shows that it has a **negligible** likelihood of supporting roosting bats.
Foreseen impacts	There is a negligible risk that bats could be injured or killed during the renovation process.
Recommendations	No Further Surveys. **However**, a precautionary approach will be taken. Ideally carried out outside the peak bat activity season (Mid-May – Mid September), the roofing slates and any remaining ivy if/when removed will be done under the supervision of a suitably qualified ecologist. One bat box will be placed on the building where the ivy is removed to provide roosting space for any transient bats that may rely on the habitat occasionally. Also, 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.
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 installation of a minimum of 2 bat boxes in total on the building when finished will provide additional roosting habitat for bats e.g. • 1FF Schwegler Bat Box • Greenwoods Ecohabitats • https://www.greenwoodsecohabitats.co.uk/bats • Kent Bat Box (timber). 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. Cavity bat boxes are also a good option in new construction available from: https://www.nhbs.com/ib-vl-05-vivara-pro-build-in-woodstone-batbox?bkfno=252213

Table 4: Evaluation Summary for presence of breeding birds

Survey assessment conclusions	The site includes suitable habitat for nesting birds.
Foreseen impacts	Active nests could be destroyed during vegetation removal. Any works which affect The Site could have an impact on nesting birds.
Recommendations	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 ivy 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.
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*	Install a minimum of two bird boxes on retained trees/buildings on site e.g. • WoodStone® range of 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. House martin/swallow boxes should be placed under the eaves with clear entrance/exit paths.

5.0 Bibliography

- Andrews H and Gardener M 2016, *Bat Tree Habitat Key – Database Report 2016.* Bridgewater:AEcol.
- Andrews H *et al.* 2016. *Bat Tree Habitat Key,* 3rd edn. Bridgewater: AEcol
- 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)
- Magic database (2019) http://www.magic.gov.uk/MagicMap.aspx
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

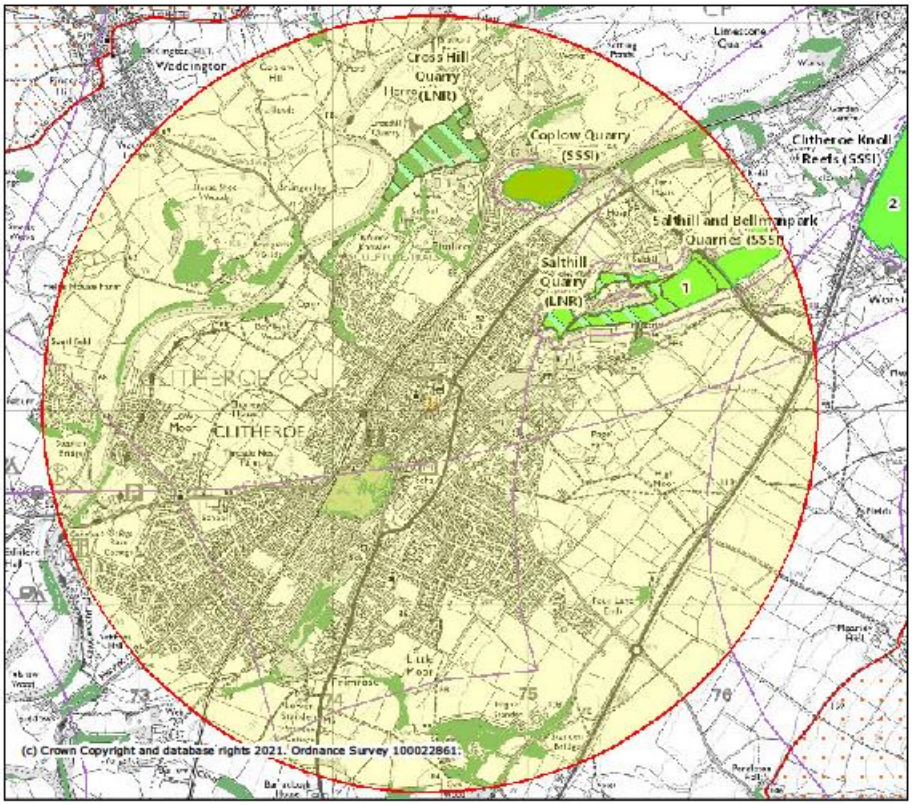
Appendix 1: Survey Plan

Appendix 2: Proposed Site Plan

Not supplied

Appendix 3: Desk Study Information

MAGIC ignated sites and Priority habitat 2km survey area



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.