



**FORMER COACH HOUSE AT THE OLD  
VICARAGE, LONGSDON, STAFFORDSHIRE**

**PRELIMINARY ROOST ASSESSMENT  
OF BUILDING**

**Prepared for  
Drs. R. and V. Burnham**

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| <b>Client</b>           | <b>Drs. R. and V. Burnham</b>                                              |
| <b>Project</b>          | <b>Former Coach House at The Old Vicarage,<br/>Longsdon, Staffordshire</b> |
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## **1. INTRODUCTION**

- 1.1 This report has been prepared for Drs. R. and V. Burnham. It presents the results of a Preliminary Roost Assessment of a former Coach House at The Old Vicarage, Longsdon, near Leek Staffordshire during February 2021.
- 1.2 The proposals are for the building to be converted into an ancillary residential unit. The proposed design for the building is detailed on the drawing *Plan and Elevations as Proposed* prepared by Hewitt Carr Architects (drawing number 01009 AL(0)02, revision B, dated November 2020).
- 1.3 The Coach House serves as an outbuilding to The Old Vicarage, which lies 25m to the south-west. It is single storey and built from brick, with a tiled, straight-forward pitched roof running between gable ends. The building is used for storage.
- 1.4 The building is located 1.7km to the south-west of Leek town in the village of Longsdon off the A53 Leek Road. It neighbours St Chad's Church to the west. The local area consists of open farmland characterised by meadow and pasture bordered by hedgerows and dry-stone walls. The Cauldon Canal runs 840m to the south with the Endon Brook just beyond this. The OS grid reference for the building is SJ 95973 54656.
- 1.5 The report describes the methods used for the survey and any constraints encountered, along with the results of the survey, including a description of the building and any evidence of bats found. The findings are then assessed in light of the proposals and recommendations for further survey or action are given where appropriate.
- 1.6 The legislation relating to bats is given in Appendix I.

## **2. METHODOLOGY**

### **Search of Existing Bat Records**

- 2.1 The local record centre, Staffordshire Ecological Records, was contacted for existing records of bats within 2km of the site.
- 2.2 The results of a record search can help to set a site into the context of its surroundings, as well as provide valuable information on the known presence of bats in the local area.

### **Survey Methodology**

- 2.3 The Preliminary Roost Assessment was undertaken on the 16<sup>th</sup> February 2021 by Helen Ball and Neil Watkin, both experienced ecologists. Both ecologists hold Natural England licences to disturb and handle bats (Helen - Classes 3 and 4 licences; Neil - Class 2 licence).
- 2.4 An assessment of the building was made in terms of its suitability to support roosting bats. Factors considered included internal conditions, presence of features suitable for use by crevice dwelling and free hanging bats, proximity to foraging habitats/cover and potential for disturbance.
- 2.5 A description of the building was made, and it was designated to one of the following categories according to its assessed potential to support bats:
  - Bat roost – evidence of use by bats present. Works affecting the roost would need to be undertaken under a statutory licence from Natural England, with precautionary and mitigation measures implemented as specified by the licence.
  - High Potential – building exhibiting features very suitable for use by roosting bats (such as gaps between tiles and underfelt, gaps below ridge tiles, significant crevices within the walls) and offering optimal roosting opportunity. Often a number of suitable features will be present. Further survey (usually a minimum of three evening emergence and/or dawn re-entry surveys) would normally be undertaken to establish use by bats and, if confirmed, the type of roost and number of bats present, etc. If no roost is identified, precautionary measures would need to be implemented during works to the building.
  - Moderate Potential – building exhibiting features less suitable for roosting bats (such as superficial gaps within walls, gaps containing debris or cobwebs, limited areas of tiles or generally well-sealed tiling) and offering sub-optimal roosting opportunity. Suitable roosting opportunity may be limited to a single or small number of features that can be searched for signs of use. Further survey (usually a minimum of two evening emergence and/or dawn re-entry surveys) would normally be undertaken to establish use by bats and, if confirmed, the type of roost and number of bats present, etc. If no roost is identified, precautionary measures would need to be implemented during works to the building.

- Low/Negligible Potential – building exhibiting features very unlikely to be used for roosting or no features suitable for roosting. For low potential buildings, further survey (usually a single evening emergence and/or dawn re-entry survey) would normally be undertaken to establish use by bats and, if confirmed, the type of roost and number of bats present, etc. Precautionary measures may need to be implemented during works to the building, although often no further action would be required.
- 2.6 A detailed visual inspection of the exterior and interior of the building was undertaken. The inspection followed standard methodologies set out in *Bat Surveys for Professional Ecologists – Good Practice Guidelines*, Bat Conservation Trust (Collins, 2016).
- 2.7 Externally, a visual inspection of features such as gaps in the fabric of the building was made for evidence of bat use from ground level. Evidence searched for included droppings and staining from fur-oil and urine. The survey was undertaken from the ground and aided by the use of close-focusing binoculars and a high-powered torch where necessary.
- 2.8 The internal survey of the building followed a similar approach, with a search made for bat droppings, prey residues (such as fly or moth wings) and urine stains, as well as resident bats.
- 2.9 The weather conditions during the inspection survey were as follows: dry with scattered cloud, light breeze and temperatures of 10°C.

### **Constraints**

- 2.10 None encountered.

### **3. SURVEY FINDINGS & INTERPRETATION**

#### **Review of Existing Ecological Records**

- 3.1 Staffordshire Ecological Record provided information on bats that have been recorded within 2km of the site.
- 3.2 Bats have been recorded on 52 occasions within the search area, with seven species known to be present: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus*, noctule *Nyctalus noctula*, Natterer's *Myotis nattereri*, Daubenton's *Myotis daubentonii* and whiskered *Myotis mystacinus*.
- 3.3 There are no records of bats from the site itself. The closest record to site is of a juvenile pipistrelle casualty found in 1994 at a location 700m to the south. There are seven known roosts within the search area. The nearest roost is that of a brown long-eared roost and lies 1.25km to the south. A pipistrelle roost lies 1.7km to the south-east, recorded in 2006. Two further roosts are known over 1.7km to the north-east, one a whiskered bat roost and the other that of an unidentified species. Two roosts have been recorded at the site of St Edward's Hospital 1.8km to the south-east and are used by common pipistrelle and brown long-eared. A common pipistrelle roost has been recorded 1.9km to the south west.
- 3.4 Both common and soprano pipistrelles have been recorded on four occasions in the search area, with the majority of other records identified as 'pipistrelle' only. Noctule bats have been recorded on five occasions, largely in the Leek area to the north-east. Two Natterer's records relate to casualties found at a location 1.8km to the north-east also in the Leek area. All four Daubenton's records were made at water bodies to the south. These records are of bats recorded in flight or found grounded due to injury or sickness.

#### **Survey Findings**

##### **External Inspection**

- 3.5 The building is single storey. It has a straight-forward pitched roof running between gable ends. Some of the walls are built from a double skin of bricks. The masonry is generally in good condition. On the northern gable end wall, a section of the outer brickwork has been removed at the base of the wall, measuring approximately 60cm x 60cm and on the eastern wall two gaps are present and covered loosely by metal plates. On the southern gable end wall, two pigeonholes are positioned above the doorway; these have been sealed internally.
- 3.6 The pitched roof is clad in clay tiles. In at least two places toward the northern end, the common tiles are raised and near to the ridge two tiles have fractured and slipped. The mortar bed beneath much of the ridge tiles has degraded thus creating gaps between them and the common tiles below in several places. The mortar bed of the wall verge tiles at the northern gable has also perished in several places with gaps evident. The torching along both the eastern and western eaves has also been displaced at numerous points leaving gaps between the wall top and roof laths.

- 3.7 There are four wooden sash windows in the western wall of the building and a fifth on the northern gable. There are two small casements on the eastern wall and one on the southern gable. All of these windows are well sealed with no gaps around the frames, although one of the sash windows was open at the time of survey. A large. There is a large wooden sliding vehicle door on the southern gable end. A roller shutter door is located on the western wall. This has a gap along its top, approximately 80mm wide and provides a suitable egress point into the interior of the building for bats.

### **Internal Inspection**

- 3.8 Internally, there are four rooms partitioned by brick walls, the most northerly of which is accessed via a separate external doorway and is not connected internally to the other rooms.
- 3.9 The walls internally consist of bare brick except in one of the central rooms that been clad in wooden tongue and groove boards, including the ceiling. A fire range and chimney are also incorporated into the corner of this room. The other rooms have an elevated lath and plaster ceiling which forms a roof void above purlin level. In two places the plaster has deteriorated and fallen away and the laths in these areas have become somewhat loose, leaving gaps. The two central rooms both have loft hatches in the ceiling. **Immediately below the loft hatch in the timber clad room several small tortoiseshell butterfly wings were identified. In the adjacent central room, a bat dropping was noted on garden machinery. The droppings and feeding remains are typical of those produced by brown long-eared bats.** The northern room contains evidence of former use where racing pigeons were kept in cages attached to the walls.
- 3.9 The roof void runs the length of the building between the gable ends and is approximately 1m in height to the apex. Much of the torching has been regarded from the underside of the tiles and forms a deep layer of mortar debris between ceiling joists. Cobwebbing is present throughout the roof void. There are crevices between rafters running towards the eaves where the sections of ceiling slope down from purlin height. Several gaps associated with lifted or broken common tiles and missing mortar under ridge tiles are evident in the roof void.

### **Interpretation of Survey Findings**

- 3.10 The building is used by brown long-eared as a feeding perch, with evidence found associated with the two central rooms. Bats likely gain access to these rooms via the gap above the roller-shutter door. Elsewhere the building holds high potential for roosting particularly associated with gaps under the ridge tiles and at the wall verges and potentially gaps within the walls.
- 3.11 The condition and fabric of the building, with areas of tiled roof and external and internal gaps associated with the brick walls provide a range of opportunities for bat roosting and thus the building may be used throughout the year.

- 3.12 As well as direct impacts, such as loss of roosting and access points and a reduction in the overall space available to bats, in the absence of mitigation the works pose a risk to bats directly and indirectly as a result disturbance.
- 3.13 The Coach House is located in a rural area and surrounded by habitats that provide excellent and varied opportunities for bats to use for foraging.
- 3.14 An incidental finding of the survey is that the building has the potential to be used by birds for nesting. The proposals would need to take account of the presence of nesting birds.

#### **4. RECOMMENDATIONS**

- 4.1 In light of the survey findings, follow-on surveys for bats will be necessary. The surveys would help to determine how bats make use of the building for roosting and the extent of bat use; the species of bat present; the status of any roost/s; numbers of bats present; and roost and access points to be determined, thus enabling impacts to be assessed and appropriate compensation and mitigation to be designed where applicable to off-set impacts on bats. The recommendation for follow-on survey follows the advice on assessment of buildings contained within Bat Surveys – Good Practice Guidelines (Collins, 2016).
- 4.2 The follow-on survey would need to consist of a combination of three evening emergence and/or dawn re-entry surveys, with surveyors positioned externally, watching for bat emergence from/re-entry into, and activity associated with the building. Sufficient surveyors would need to carry out the survey to adequately view the building. It would be advisable to also undertake passive recording of bats by use of a static bat detector placed in the roof void. This could be installed during the first visit and retrieved during the second or third visit.
- 4.3 The surveys would need to be undertaken during a time of year when bats are most active. Such surveys can be undertaken between May and September according to Bat Conservation Trust guidelines, with May to August being the optimal period (September is considered sub-optimal). Survey visits would need to be each spaced by a minimum of two weeks.
- 4.4 In view of the legal protection afforded to bats (see Appendix I), a statutory European Protected Species (EPS) development licence would need to be sought from Natural England to undertake the proposed work on the building. In order to issue a licence, Natural England require detailed and up-to-date information about the status of bat roosts and bat use of the building and a commitment to appropriate mitigation measures where applicable. In addition, planning permission (usually full) would have to have been granted for the development (again where applicable).
- 4.5 In order to obtain a licence from Natural England, the following three tests would need to be satisfied:
- there is no satisfactory alternative;
  - the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range; and
  - the action authorised preserved public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.
- 4.6 The presence of nesting birds can be avoided as a constraint to the proposals by timing works to avoid the bird nesting season. Should works need to be carried out during the bird nesting season then a watching brief for birds would need to be undertaken by an ecologist prior to any works commencing and during the works to check for the presence of nesting birds. The findings of the watching brief would be used to ascertain the best method to proceed to avoid impacting upon nesting birds, which would be set out via a method statement. The bird nesting season is

*Former Coach House at The Old Vicarage, Longsdon, Staffordshire*  
*Preliminary Roost Assessment of Building*

generally deemed to run from March to August inclusive, although some species such as barn swallow can nest outside this period.

**5. REFERENCES**

Collins, J. (ed). (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. 3<sup>rd</sup> Edition. Bat Conservation Trust, London.

**PLATES**



**Plate I. Southern elevation with sliding doors and pigeon holes in masonry above.**



**Plate II. Northern gable with missing bricks at the base and missing mortar along the verge.**



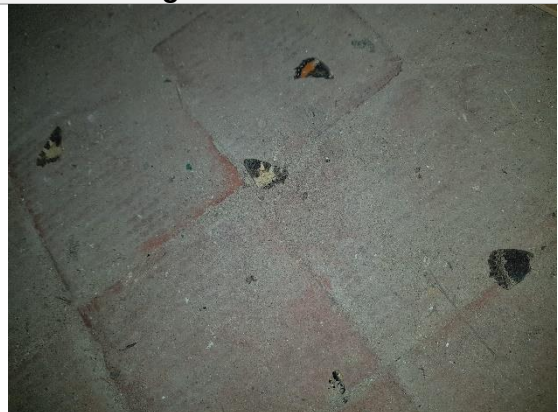
**Plate III. Roller shutters and open window and door along the western elevation.**



**Plate IV. Multiple gaps where mortar has failed under ridge tile and cracked and missing common tiles.**



**Plate V. Gaps at eaves with access into roof void.**



**Plate VI. Prey remains located beneath loft hatch in the centre of the building.**

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**Plate VII. Southern room with bare brick walls and plastered lath ceiling.**



**Plate VIII. Second room clad in pine tongue and groove boards.**



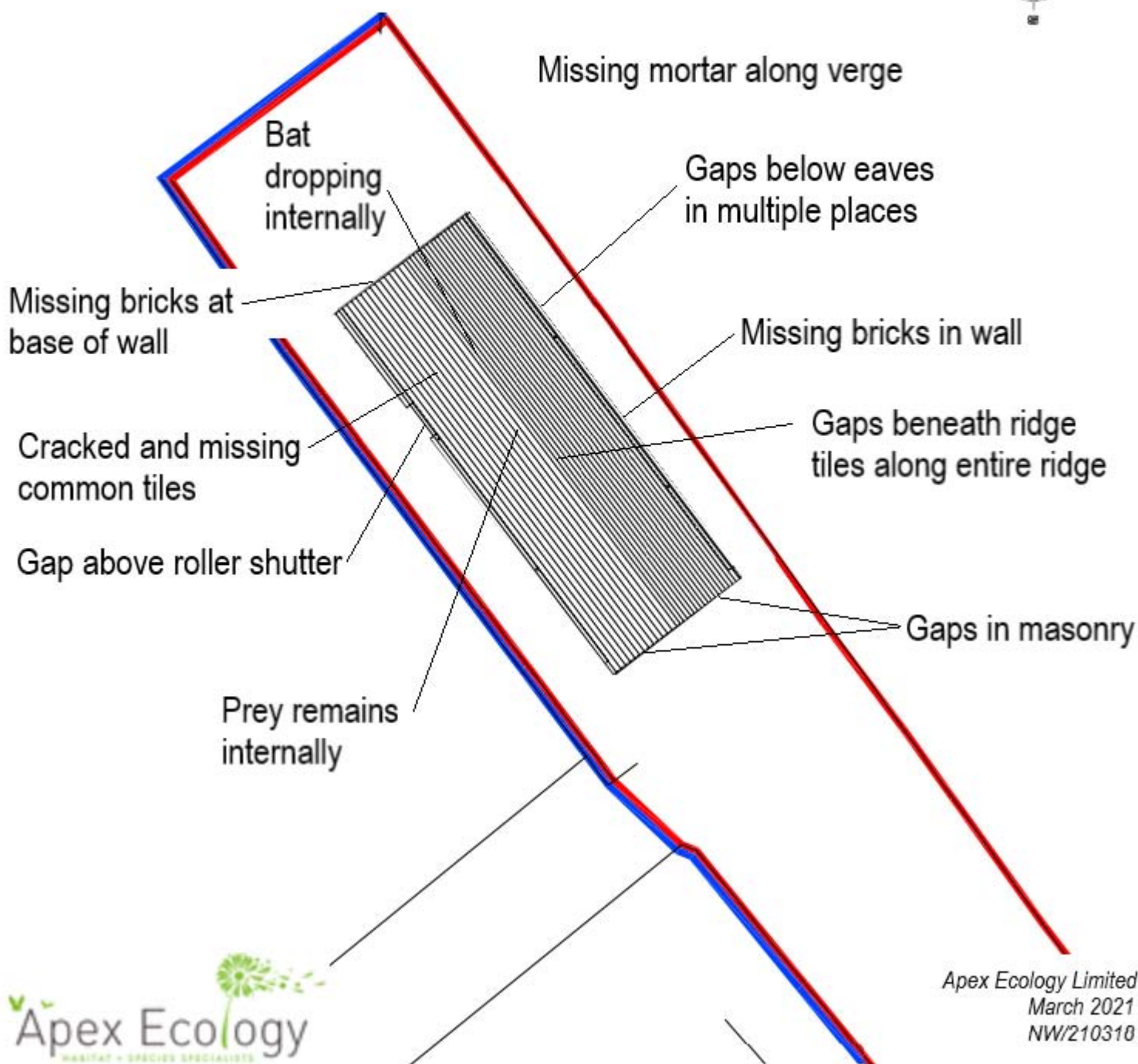
**Plate IX. Roof void looking northward. Gaps showing along the ridge, toward the gable wall.**



**Plate X. Roof void looking southward with no division.**



Figure 1. Layout of Building and Location of Potential Roost Features



## **APPENDIX I - LEGISLATION RELATING TO PROTECTED SPECIES DISCUSSED IN THE REPORT**

The information below is intended only as guidance to the legislation relating to these species and relates solely to England and does not purport to provide legal advice. It is recommended that the legislative documents be referred to for the full legal wording and the services of a relevant specialist sought where legal advice is required.

### **Bats**

There are seventeen different species of bat in the UK; some are very rare whilst others are widespread. However, because the populations of most species have declined in past decades, all British bats have been protected by law.

Bats are protected in England under European Legislation via the Conservation (Natural Habitats and Wild Flora and Fauna (92/43/EEC)) or 'The Habitats Directive'. The Directive is transposed into UK law via the Conservation of Habitats and Species Regulations 2010 (Statutory Instrument 2010/0490 known as the Habitats Regulations), which came into force on the 1<sup>st</sup> April 2010. The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 (Statutory Instrument 1994/2716) and amendments. Due to their inclusion on Schedule 2 of the Habitats Regulations, bats are considered 'European Protected Species'.

In summary, this legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb a bat;
- damage or destroy a breeding site or resting place of any bat;
- possess a bat (alive or dead) or any part of a bat.

Disturbance of bats 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) to hibernate or migrate; or

(b) to affect 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), which has also been amended by the Countryside and Rights of Way (CROW) Act, 2000.

In summary, this legislation makes it an offence to:

- intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection;
- intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection.

## **Birds**

All wild birds, their nests and eggs are protected by law under the Wildlife and Countryside Act 1981 (as amended). It is, therefore, an offence (subject to certain exceptions) to:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- take or destroy the egg of any wild bird.

In addition to the above, in accordance to amendments of the Wildlife and Countryside Act by the Countryside and Rights of Way Act 2000, it is an offence to:

- intentionally or recklessly disturb any species listed on Schedule 1 of the Wildlife and Countryside Act whilst building a nest, or whilst it is on, in or near a nest containing eggs or young; and
- disturb the dependent young of a Schedule 1 bird.

For example, barn owl is protected under Schedule 1 of the Wildlife and Countryside Act, protecting them from intentional or reckless disturbance during the breeding season (which is normally considered the time from when the female makes the first nest 'scrape' and lays the first egg until the time when the last dependent young stops returning to the nest (English Nature, 2002/3)).

## **NERC ACT AND BIODIVERSITY**

A number of UK habitats and species are also included on the list of habitats and species which are of principal importance for the conservation of biodiversity in England as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act. The NERC Act came into force on 1st Oct 2006. Section 41 (S41) 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 in England. The list has been drawn up in consultation with Natural England, as required by the Act.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of NERC Act to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels.

There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities

under the UK Post-2010 Biodiversity Framework. In addition, the Hen Harrier has also been included on the list because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England. In accordance with Section 41(4) the Secretary of State will, in consultation with Natural England, keep this list under review and will publish a revised list if necessary.

The impact that this legislation has on the Planning system is also outlined in ODPM 06/2005 Government Circular: Biodiversity and Geological Conservation – Statutory obligations and their Impact within the Planning System. This states:

*The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Local authorities should consult English Nature [now Natural England] before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species' protection provisions affecting the site concerned.*