

Preliminary Roost and Nest Assessment



Hidden Valley Cottage Penfane Farm Herodsfoot Cornwall PL14 4QU

GR: SX 20349 62174

January 2021





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Contract Details

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Architect/Planning Consultant: AHT Design

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Other report ref. if applicable: N/A

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Notice

Ecological Surveys Limited was commissioned to undertake an Internal / External Bat and Protected Species Scoping Survey of the above site proposed for development. This report details the results and conclusions of this survey. The results of this survey are deemed to be valid for 12 months from date of survey. If development works are to be carried out after this time has elapsed, an updated survey will be required. This survey was undertaken with all proper and reasonable skill and care in a professional manner and in accordance with accepted standards, methodologies and guidelines.

This report is based on the evidence recorded at the site at the time of the survey. The information gathered is considered sufficient to provide an assessment of the ecological interest on the site and justify the recommendations provided in this report.

Refer to <u>Appendix 1</u> for details of Bat and Bird Law and Legislation and http://www.nwcu.police.uk/ regarding avoiding committing wildlife crime.



1. Executive Summary of Findings

A preliminary roosting and nesting assessment (PRNA) was carried out at Hidden Valley Cottage, Penfane Farm, Herodsfoot, Cornwall, PL14 4QU (Grid reference: SX 20349 62174). The assessment found no evidence pertaining to bat species and was assessed as having no or negligible roosting features. It was therefore concluded the proposed development works: extension to the eastern aspect will not cause disturbance/harm or death to bat species or destroy a legally protected roost. Additionally, no evidence of nesting birds was recorded. Unmitigated works will not cause the loss of an actual nesting site.

Bats

Evidence of Bats in

None

Surveyed Structures

Potential for Bat

No potential (in area to be impacted)

occupation

Bat Emergence Surveys

NOT required.

Mitigation

NOT required.

Enhancement

REQUIRED: - 1x bat box. Refer to Enhancement.

Birds

Evidence of Birds

No evidence

Potential for Birds

Negligible potential (in area to be impacted)

Bird Surveys

NOT required.

Mitigation

NOT required.

Enhancement

Not required for birds. Refer to Bat Enhancement.



2. Survey Objectives

The survey specifically aimed to identify the following:

- ✓ The presence of, or past use of the site by, any species of bat.
- ✓ The presence of, or past use of the site by, barn owl, or other nesting birds.
- ✓ The site's potential for use by any of the above.
- ✓ Any other ecological issues relating to the proposal.

3. Methods

Internal & External Inspection

The aim of the survey was to assess levels of usage of specific structures or potential for usage by bats and birds through the presence of actual animals or their field signs. The survey was conducted with the aid of head and hand-held torches, an endoscope, close-range binocular/monocular, Bat-box Duet and a digital camera. Images and samples (where available) were taken for supporting evidence.

Interior

The interior spaces were checked for light ingress and access points for bats and birds. Bat droppings, insect prey remains, urine stains, oil stains from bats repeatedly moving over a small area and polishing the surface and the potential presence of bats either dead or alive was considered. Bird droppings, whitewash, pellets, nesting materials, birds, dead or alive, and potential for nesting was considered, including areas hidden from sight.

Exterior

The building exteriors were searched visually using binoculars or a close range monocular and photographed with a digital zoom camera for field evidence of bats or birds, with particular attention being paid to sheltered areas such as window ledges and pipes where bat/bird droppings might lie undisturbed from the weather and areas hidden from sight.

Constraints

There were no perceived constraints to the survey of the dwelling, with all internal and external surfaces inspected and assessment made of the roof structure. The survey effort was considered sufficient to draw appropriate conclusions. It took into account the time of year (optimal period is April – September) and likely availability of evidence, with appropriate emphasis on suitable roosting or nesting conditions, opportunities for potential access through ingress points, free-flight, crawl spaces externally and internally, and features that may have been hidden from full view.



4. Site Location

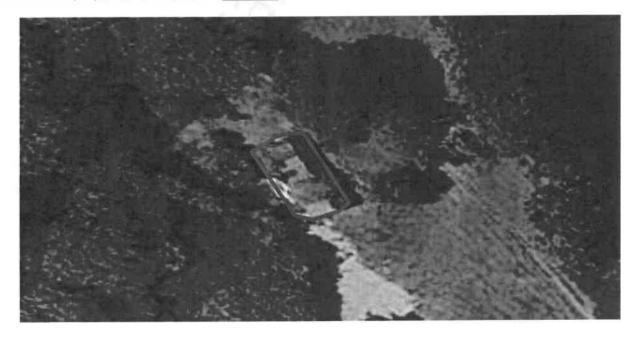
The site is located in a rural area northwest to the village of Herodsfoot in Southeast Cornwall. The surroundings of the site are predominantly agricultural with patches of woodland and mature agricultural hedgerows in very close proximity. The surrounding habitat is of considerable value for a range of wildlife, including bats and birds.



5. Map of Site Habitat

Locations are approx. and not to scale.

Location of proposed development





6. Proposed Site Works

No specific design for the proposed development has been provided to inform this report. It is understood the proposal is for an extension to the eastern aspect of the cottage. The roof of the extension will connect to the existing property via a valley and the extension will have a pitched and gabled roof similar to the existing roof.

The extension will require the removal of soil/subsoil to ensure the correct levels are achieved. The area to be excavated has no potential for protected species and is currently the edge of a muddy track.

No loss to roosting or nesting features are expected from this development proposal.

7. Structure Descriptions

The structures were assessed against the criteria laid out in Appendix 3: Assessing the Potential Value for Buildings.

BUILDING 1 - Cottage



Structure Cottage	Roof Covering Ranger slate (approx. two years old)	Type of Roof Pitched with gables	Lining Breathable Membrane	Insulation Fibre Glass
	(approx. two years old)	gables	Membra	ne

Loft Void	Wall Construction Materials	External Cladding	Roof Fittings/ Additions
Present, very small	Mixture of stone and cob	Lime render	Wooden soffit boxes

Cavity Wall	Cavity Insulation	Other External Features
Not Known	Not Known	N/A



Potential Access Points Bats & Birds

Artificial bat roosting and bird nesting features exist in the form of a bat box and a house martin nest cup on the north-western gable end. These features will not be impacted by the proposed development.

Evidence for Bats & Birds

Bats: None found. **Birds**: None found.

8. Results and Assessment

Structure	Bats		Birds	
	Confirmed Roost Evidence	Roost Ingress/crevices	Nest Present	Potential for Nesting Exists
Cottage	No	None that will be impacted by	No	Negligible – not impacted by
		works.		works.

Rationale

- i. There were no ingress points, no missing slates or other potential roosting points such as gaps behind fascia / bargeboards for bats access on the elevation that will be impacted by proposed works. Artificial bat roosting and bird nesting features exist but they will not be impacted by the extension.
- ii. Whilst no evidence of bats exists at present, it may be possible for bats to become associated with this structure in the future. Lack of evidence at point of survey does not discharge the client/agent of their responsibilities to protected species. If a bat is discovered during the development process, work must immediately cease in this area and professional ecological advice obtained from the acting ecologist for lawful procedure.
- iii. Whilst no nests were recorded, it is possible for a nest to be established in future nesting seasons. Active bird nests, irrespective of species, are protected by law. Works cannot take place until nestlings have fledged, and the nest is no longer in use. If birds nest prior to or during development works, and this nest will be impacted by the proposal, work must cease until all chicks have fledged and flown and/or nesting has ceased.
- iv. Where the immediate surrounding habitat of the proposed development may be impacted by the proposal, consideration of this habitat must be given for its potential to support protected species or whether the habitat itself is protected or of



significance. No further habitats or species are considered to be at risk of impact by this proposal.

Site Images/Evidence



Built-in bat box on the north-western gable end. This artificial bat roosting feature will not be affected by the proposed development.



Area of the proposed development. The extension will require the removal of soil/subsoil to ensure the correct levels are achieved. The area to be excavated has no potential for protected species and is currently the edge of a muddy track.



9. Mitigation

Under the National Planning Policy Framework (NPPF), Local Planning Authorities (LPAs) have an obligation to promote the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species as identified under the Natural Environment and Rural Communities Act (2006). Local Planning Authorities will seek to produce a net gain in biodiversity by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for. Mitigation is the process of replacing any ecological / biodiversity losses because of development. Mitigation is not required for this site. LPA 'Building Control' will ensure that Enhancement measures have been implemented as per recommendations. Additional details and images to cover specifics for Enhancement are given in Enhancement.

Bat Mitigation

Mitigation: - not required for bats.

Advisory

Irrespective of survey findings, contractors should be made aware that there is always the potential presence of bats in association with roofing layers, ridgelines and wall tops. In the event that a bat is found during works, all activity near the discovered bat(s) should cease and advice sought from Ecological Surveys Ltd (Tel: 01503 240846 or 07736 458609) or the Bat Conservation Trust Helpline (Tel: 0345 1300 228). Bats should not be handled (unless with gloves) and only then to protect them from harm, but wherever possible should be left in situ, gently covered until advice is obtained.

Bird Mitigation

Mitigation: - not required for birds.

Advisory: - It is possible that bird nests could also be newly established in association with this site during future bird nesting seasons. The bird nesting season generally extends from March to August inclusive. Although, depending upon the species, geographical area and the weather conditions, nesting can extend outside this period and it is the nesting behaviour that must be observed, not the supposed time frame, as collared doves (Streptopelia decaocto) and barn owls (Tyto alba) have been observed to nest in every month of the year. All British birds and their nests are protected whilst in use; therefore, if a nest is found during construction work, all activity must cease within proximity and ecological advice (Tel: 01503 240846 or 07736 458609) sought immediately.



Impact Avoidance During the Construction Phase

All activities on site should bear in mind the potential for wildlife or the environment being harmed through the process of development from inception to the completed development, with a proactive approach occurring for lawful protection of wildlife and the environment regarding use of materials, machines, chemicals, and human activity on site.

- > Restrictions apply to mulching and earth moving which may cause the spread of invasive non-native plants and animals.
- > Restrictions apply to activities that cause the spread of non-native animals into the wild.
- Contractors must ensure that no harm can come to wildlife by maintaining the site efficiently, clearing away any material such as wire in which animals can become entangled and preventing access to toxic substances.
- ✓ Trenches or large excavations should be covered overnight to prevent wildlife such as badgers or hedgehogs falling in and failing to escape. If this is not possible then a strategically placed plank may provide a means of escape.
- ✓ Any large bore pipes should be capped at the end of the day to reduce the potential for badgers and other wildlife entering and becoming trapped.
- ✓ Areas that are being retained should be protected from damage during construction by erecting Heras (or similar) fencing around these features. The fencing should be erected outside the line of the canopy as this helps protect the roots from compaction of the soil.
- ✓ Any areas proposed for planting post-development should be fenced off where possible to prevent compaction of the soil through vehicle movements.
- ✓ If there is a substantial delay before development commences, the site should be maintained in a way that would prevent wildlife colonising it and causing constraints in the future. Such management should include mowing grassland at least twice a year and preventing scrub encroachment.
- ✓ Piles of brush wood and or log piles should be carefully inspected for signs of wildlife prior to their removal. This is especially crucial during the period March − September (inclusive) as some species of bird choose such sites to construct their nests. Ideally removal of such features should be done outside of the nesting season. If this is not possible, it is recommended that these features are covered in such a way as to exclude / prevent birds and / or reptiles taking up residence. Should nesting birds or reptiles be discovered, work must cease immediately, and ecological advice sought.
- ✓ All hedgerows / trees / shrubs removal should be done outside of the bird nesting season: March – September (inclusive). If removal is not possible during this period, careful checks of such must be conducted by a suitably experienced ecologist prior to works commencing.



10. Enhancement

The National Planning Policy Framework (NPPF) sets out the UK Government's national policies on enhancement of biodiversity and promotion of ecosystem services through the planning system. Under NPPF, Local Planning Authorities (LPAs) have an obligation to promote the preservation, restoration and recreation of priority habitats, ecological and the protection and recovery of priority species as identified under the Natural Environment and Rural Communities Act (2006). LPAs will therefore seek to produce a net gain in biodiversity by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for. As a minimum LPAs now expect any new structure to include bat roost or bird nesting provision.

Bat Provision

- ✓ 1 built-in bat tube or bat box to be erected upon southern or western facing aspect of the extension. A similar design to the existing bat box on the north-western gable end could be used.
- ✓ Where Enhancement recommends bat tubes or bat boxes on structures, aspects of the Lighting Strategy must be followed to ensure artificial lighting does not shine on the access points /boxes or flight paths.
 - Choose residences closest to the perimeter of the site, with direct access to hedges and trees.
 - Bat tubes must be built into the fabric of the building and not bolted on to the outside and are therefore only suited to structures, not trees. The most suitable style can be agreed with the LPA.
 - Where bat-tubes are not suitable owing to the type of construction of the proposed structures, other bat boxes or specifically designed bat habitation of an equally durable condition may be substituted for bat-tubes (subject to LPA approval).





Lighting Strategy

(Where additional lighting is proposed.)

- ✓ Avoid artificial lights shining on known or potential bat roosts, their access points and their flight paths.
- ✓ Light ONLY when and where it is needed for health and safety.
- ✓ Prevent light-spill and spread. Eliminate bare bulbs, upward pointing lights, keep light near to or below the horizontal. E.g. flat cut-off lanterns. Such light should be positioned to only illuminate the required areas, limiting light spill, both horizontally and vertically. Additionally, hoods, cowls, louvers and/or shields may be utilised to further direct any lighting.
- ✓ Decrease light intensity, avoid the UV spectrum: attracting insects is NOT an aim.
- ✓ Reduce height of lighting columns. Or allow for lower main beam angles to reduce glare.
- ✓ Timer switch on any proposed outdoor lighting to facilitate dark periods.



11. Conclusions

The cottage (with the exception of the bird and bat bricks not impacted by works) is considered to offer no bat roost value and no bird nests were recorded. Therefore, no habitats for these protected species, bats and birds, will be lost to this development.

Mitigation for bats and birds is not required; however, enhancement of the site post development is required. The habitat value has been taken into account when making enhancement recommendations.

- Providing Enhancement recommendations are agreed and enacted, there would appear to be no ecological reasons why this proposal should not go ahead.
- Enhancement / Mitigation may be subject to Conditioning within any granting of Planning Permission.
- Local Planning Authority (LPA) 'Building Control' will ensure that Mitigation / Enhancement measures have been implemented as per recommendations.

It should be noted that it is possible that bats may on occasion utilise restricted and concealed spaces, such as upon wall tops, within deeper cracks or crevices or even within wall cavities of a structure with their subsequent field signs remaining concealed. Therefore, it is always possible that bat roosts/roosting locations may remain unidentified. Bird locations and access are usually less concealed, however, in each instance of bats and birds, 'Good Practice' which abides by law and legislation must always be applied prior to and throughout the development procedure. It is also possible that any alteration to the structure or structures on site, might render an unsuitable structure, suitable. Examples could include: storm damage or partial completion of works which create opportunities for bats or birds to enter a structure.

Please refer to client/agent personal responsibilities: <u>Appendix 1: Legislation Bat and Bird Species and Enhancement.</u>



12. References

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- Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.
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- Cornwall Council (2018). Accommodating swallows, swifts and house martins: Guidance notes for developers, builders, surveyors, architects and house holders. Cornwall Council, Truro.
- Cornwall Planning for Biodiversity Guide (2018)
 https://www.cornwall.gov.uk/media/35514048/biodiversity-spd-v7.pdf
- Countryside and Rights of Way Act 2000. HMSO.
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- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines, English Nature, Peterborough
- Purbeck Technical Design Guidance Bats and Birds, 2014.
- UK Biodiversity Action Plan. <u>www.ukbap.org/uk.</u>
- Waring, S. (2012). Bats & Breathable Roofing Membranes. University of Reading. www.batsandbrms.co.uk.
- Wildlife & Countryside Act 1981, as amended. HMSO.



13. Appendices

Appendix 1: Legislation Bat and Bird Species Bats

All bat species and their roosts are legally protected in the UK. All bats are listed as European protected species of animals in the European Union's Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as the Habitats Directive. This Directive is implemented in the UK by The Conservation of Habitats and Species Regulations 2010 (better known as the Habitats Regulations).

There is also some protection for bats and roosts in England and Wales under the Wildlife & Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000). For practical purposes, the protection of bats and their roosts now falls mostly under the Habitats Regulations.

In summary, it is an offence to

- Deliberately, capture, injure or kill a bat.
- Deliberately, disturb in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young.
- Damage or destroy a roost (this is an 'absolute' offence).
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.

('Deliberately' may be interpreted as someone who, although not intending to injure, kill, etc. performed the relevant action, being sufficiently informed and aware of the consequences their action will probably have.)

A person who needs to carry out actions that would result in an offence being committed should apply for a derogation licence from Natural England. They have powers to grant Habitats Regulations derogation licences in certain circumstances, for certain reasons and with certain terms attached, so that the licence holder remains within the law. Application for a derogation licence should be made in plenty of time, and the services of a bat expert utilised in making the application. It is an offence to make a false statement to obtain such a licence.

This information is not provided as legal advice and before making decisions relating to the law a qualified legal representative should be consulted.



Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare. In addition to the protection afforded to all wild birds, rarer or particularly vulnerable species listed on Schedule 1 of the 1981 Act, such as the barn owl, receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

If nests, whether completed or in the process of being built, are found on site, any works with the potential to damage or destroy the nest, eggs or young birds, must stop until the birds have completed breeding. This includes any activity that could potentially cause an adult bird to desert the nest resulting in death or egg failure. Nesting sites should be inspected only by experienced ecologists.

Any disturbance of a breeding bird listed on Schedule 1 is an offence, regardless of whether this impacts upon the breeding attempt. These nests can only be visited by an ecologist with a licence for the specific species concerned.

Birds may nest on machinery or scaffolding and other temporary site structures. If this happens the equipment cannot be used until the birds have finished nesting and such areas may need to be sealed off to prevent disturbance.

Breaking the law can lead to fines of up to £5000 per offence and potential prison sentences of up to six months. Vehicles implicated in an offence can be compounded and both the company, and/or the individual(s) concerned, can be held liable.



Appendix 2: Bat Survey Triggers.

A Bat Survey is ordinarily triggered when there is to be:

Conversion, modification, demolition or removal of buildings (including hotels, schools, hospitals, churches, commercial and derelict buildings) which are:

- Agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed wooden beams.
- Buildings with weather boarding and/or hanging tiles that are within 200m of woodland and/or water.
- Pre-1960 detached buildings and structures within 200m of woodland and/or water.
- Pre-1914 buildings within 400m of woodland and/or water.
- Pre-1914 buildings with gable ends or slate roofs, regardless of location.
- Located within, or immediately adjacent to woodland and/or immediately adjacent to water.
- Dutch barns or livestock buildings with a single skin roof and board-and-gap or Yorkshire boarding if, following a preliminary roost assessment, the site appears to be particularly suited to bats.
- At the behest of the LPA / County Ecologist.
- Further details of other triggers can be found below.

Development and Planning Trigger for Bat Surveys

Development and planning trigger list for bat surveys, which can be adapted to local circumstances (taken from the Association for Local Government Ecologists (ALGE) template for biodiversity and geological conservation validation checklists 2007, available from http://alge.org.uk/publication/index.php).

Conversion, modification, demolition or removal of buildings (including hotels, schools, hospitals, churches, commercial premises and derelict buildings) which are:

- Agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed wooden beams;
- Buildings with weather boarding and/or hanging tiles that are within 200m of woodland and/or water;
- Pre-1960 detached buildings and structures within 200m of woodland and/or water;
- Pre-1914 buildings within 400m of woodland and/or water;
- Pre-1914 buildings with gable ends or slate roofs, regardless of location;
- Located within, or immediately adjacent to woodland and/or immediately adjacent to water;
- Dutch barns or livestock buildings with a single skin roof and board-and-gap or Yorkshire boarding if, following a preliminary roost assessment, the site appears to be particularly suited to bats.



Development affecting built structures:

- Tunnels, mines, kilns, ice-houses, adits, military fortifications, air-raid shelters, cellars and similar underground ducts and structures; unused industrial chimneys that are unlined and brick/stone construction;
- Bridge structures, aqueducts and viaduct (especially over water and wet ground).

Floodlighting of:

- Churches and list buildings, green space (e.g. sports pitches) within 50m of woodland, water, field hedgerows or lines of trees with connectivity to woodland or water:
- Any building meeting the criteria listed in (1) above.

Felling, removal or lopping of:

- Woodland;
- Field hedgerows and/or lines of trees with connectivity to woodland or water bodies;
- Old and veteran trees that are more than 100 years old;
- Mature trees with obvious holes, cracks or cavities, or that are covered with mature ivy (including large dead trees).

Proposals affecting water bodies:

- In or within 200m of rivers, streams, canals, lakes, reed beds or other aquatic habitats.

Proposal located in or immediately adjacent to:

- Quarries or gravel pit;
- Natural cliff faces and rock outcrops with crevices or caves and swallets.

Proposals for wind farm developments:

 Of multiple wind turbines and single wind turbines (depending on the size and location) (NE TIN 051 – undergoing updates at the time of writing)

All proposals in sites where bats are known to be present¹

This may include proposed development affecting any type of buildings, structures, features or location.

Notes:

¹: Where sites are of international importance to bats, they may be designated as SACs. Developers of large sites 5-10km away from such SACs may be required to undertake a HRA.



Appendix 3: Assessing the Potential Value for Buildings Classification Criteria

It should be noted that the grading system below only reports on the situation at the time of survey; should bat activity levels change after the initial survey, or should the buildings be modified (for example if roof tiles are removed or facia boards develop cracks), the category may need revision.

Category Description (Potential			
Please note: Intermediate categories (e.g. Low – Moderate value) may apply.			
None/ Negligible value	Buildings with no or very few features capable of supporting roosting bats. Often buildings are of 'sound' well-sealed structure or have a single skin and no roof void. They tend to have high interior light-levels, and little or no insulation. Buildings without any roofs may also fall into this category.		
Low value	Buildings of largely unsuitable construction, but with few features of potential value to bats (e.g. gaps above windows, apparently shallow crevices). No supporting evidence (e.g. droppings / staining) found. Buildings may be surrounded by poor or sub-optimal bat foraging habitat, as is often the case in urban-centre locations.		
Moderate value	Buildings usually of brick or stone construction with a number of features of obvious potential value to roosting bats e.g. loose roof / ridge tiles, gaps in brickwork, gaps under fascia boards, and/or warm sealed roof-spaces with under-felt.		
High value	Buildings with a large number of features of obvious potential value to bats (as above). Bats may be suspected to roost within the building (at least at certain times of year), but no supporting evidence found.		
Confirmed roost	Bats discovered roosting within the building or recorded emerging from / entering the building at dusk and / or dawn. Building found to contain conclusive evidence of occupation by bats, such as bat droppings. A confirmed record (as supplied by an established source such as the local bat group) would also apply to this category.		



Appendix 4: Bat Species

1	Alcathoe	Myotis alcathoe
2	Barbastelle	Barbastella barbastellus
3	Bechstein's bat	Myotis bechsteinii
4	Brandt's bat	Myotis brandtii
5	Brown long-eared bat	Plecotus auritus
6	Common pipistrelle	Pipistrellus pipistrellus
7	Daubenton's bat	Myotis daubentonii
8	Greater horseshoe bat	Rhinolophus ferrumequinum
9	Greater mouse-eared bat	Myotis myotis
10	Grey long-eared bat	Plecotus austriacus
11	Leisler's bat	Nyctalus leisleri
12	Lesser horseshoe bat	Rhinolophus hipposideros
13	Nathusius' pipistrelle	Pipistrellus nathusii
14	Natterer's bat	Myotis nattereri
15	Noctule	Nyctalus noctula
16	Serotine	Eptesicus serotinus
17	Soprano pipistrelle	Pipistrellus pygmaeus
18	Whiskered bat	Myotis mystacinus

