



Preliminary Roost Assessment

**Castleman's Cottage, Bath Road, Knowl
Hill, Reading RG10 9UT**

04 May 2025

Preliminary Roost Assessment of Castleman's Cottage, Bath Road, Knowl Hill, Reading RG10 9UT

REPORT DETAILS

Site Name: Castleman's Cottage

Site Location: Castleman's Cottage, Bath Road, Knowl Hill, Reading RG10 9UT

Reference Number: Eco25-19

Report Version: 002

Status: Final

CLIENT DETAILS

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Date of Review: 04 May 2025



Established in 1990

Independent ecological consultancy, project
management, nature conservation,
communication materials, design and wildlife
book publisher.

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EXECUTIVE SUMMARY

The contents of this report detail the findings of a Preliminary Roost Assessment undertaken at Castleman's Cottage, located at Bath Road, Knowl Hill, Reading, RG10 9UT. The building (B1) has recently undergone a roof strip, during which the roof tiles were removed. The site, situated within a low-density residential area surrounded by grassland, arable fields, woodland, and mature treelines, is in proximity to known bat roosts and high-quality local bat habitats, offering valuable foraging and commuting opportunities.

Due to the significant disturbance caused by the roof strip, the survey was limited, and no direct evidence of bat activity was found. However, there were indications that the site may have presented high potential for roosting prior to the roof works, particularly given the characteristics of the adjoining structure and the surrounding bat habitats. Despite the absence of current roosting evidence, the site's previous suitability and surrounding ecological context suggest that a precautionary approach is necessary when undertaking the roof replacement.

The works should proceed under a Method Statement to minimise disturbance to any potential bat roosts in the nearby structures, particularly during the sensitive maternity period from May to September. The roof reinstatement should be completed before June to avoid interference with bat breeding. Recommendations include integrating bat access tiles into the new roof structure to facilitate roosting, installing a crevice-dwelling maternity bat box in the loft space, and using bat-friendly roofing materials to prevent entanglement hazards. Additionally, a toolbox talk should be conducted for roofing contractors to ensure compliance with relevant bat protection legislation.

Furthermore, the report highlights the need for precautions regarding nesting birds. Although no evidence of bird nesting was found during the survey, if works occur during the nesting season, checks for active nests should be carried out, with exclusion zones and additional measures to protect the birds.

In conclusion, while no current evidence of bat roosting was observed at Castleman's Cottage, the site's previous potential to support bats requires that all proposed works be conducted in accordance with the outlined mitigation and precautionary measures. This approach will ensure that any impacts on local bat populations and nesting birds are minimised and that all necessary legal and ecological safeguards are in place.

1 INTRODUCTION

Castleman's Cottage, located on Bath Road, Knowl Hill, Reading, RG10 9UT (hereafter referred to as "the site"), is centred at Ordnance Survey Grid Reference SU 81556 78496. The building considered for this report (B1), is a mid-terrace cottage that has recently undergone a roof strip, during which all roofing tiles were removed. The proposed works for B1 include the complete replacement of the roof structure.

The aim of the Preliminary Roost Assessment (PRA) is to assess the status of roosting bats on the site and to determine the existence and location of any ecologically valuable areas. With regards to roosting bats, this information will serve to assess the ecological impact of the proposals and identify any ecological constraints and/or mitigation measures that may be required.

Figure 1: The structures surveyed, B1 (red)

(Source: Google Earth, 2021)



2 METHODOLOGY

2.1 Desk Study

Publicly available online datasets were reviewed to identify any licences issued for works involving bats within a 2-kilometre radius of the site, along with records of designated sites within the same search area. In addition, maps and aerial imagery were examined to identify features of potential importance to bats. Local bat records were obtained from the Thames Valley Environmental Records Centre (TVERC), and a search of Wokingham Borough Council's planning portal was undertaken to identify any relevant bat surveys associated with nearby planning applications.

Table 1: Summary of resources used during the desk study

Resource	Information assessed
Google Earth	Assessment of the local landscape. Latest image date: March 2025
Multi-Agency Geographic Information for the Countryside (MAGIC) website ¹	Records of licences issued by Natural England for works affecting bat species within 2 km of the site; any relevant site designations within 2 km of the site; Special Areas of Conservation designated for bat interest within 10 km of the site; Priority Habitats in the local area
Thames Valley Environmental Records Centre (TVERC)	Bat observation records within 2 km of the site since 2010
Wokingham Borough Council Planning Portal	Bat survey results from planning applications in the local area

2.2 Field Survey

A site visit was undertaken on 16 April 2025 between 08:35 and 10:45 hours. The survey was carried out by Kristina Wood.

Kristina Wood is a terrestrial ecologist and Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Kristina holds a Natural England bat Class 1 survey licence registration (licence number available upon request).

The work, analysis and reporting was undertaken in line with CIEEM's Code of Professional Conduct², the Bat Conservation Trust's Good Practice Guidelines³ and other relevant guidelines and legislation as listed in the Appendices of this report.

¹ [Magic Map Application \(defra.gov.uk\)](https://magic.defra.gov.uk/)

² <https://cieem.net/resource/code-of-conduct/>

³ [Bat Survey Guidelines 23](#)

2.2.1 Preliminary Roost Assessment

An assessment was carried out on B1 to determine its (current and historical) potential to support roosting bats. The assessment included an internal and external investigation of structures for signs of bat activity such as droppings, rub or scratch marks, staining at potential roosts and exit holes, live or dead bats, and features potentially suitable for use by roosting bats. Particular attention was given to features within the roof space (where possible).

2.2.2 DNA Analysis of Droppings

Fragments of droppings collected during the site visit were submitted for DNA analysis to identify the species present. The droppings were sent for analysis on 30 April 2025 by Swift Ecology, in partnership with Ecotype Genetics Limited, who offer a reliable species identification service using targeted qPCR analysis for individual UK wildlife species.

2.3 Limitations

The roof of B1 has been completely stripped of all tiles, making it challenging to accurately assess its prior suitability for bat roosting. As a result, this assessment and the accompanying recommendations are informed by observations of the adjoining property (B2), in conjunction with local bat records, the surrounding habitat and knowledge of the roof's condition prior to tile removal. Given these limitations, a precautionary approach has been adopted to ensure that potential impacts on bats are appropriately mitigated.

The survey was undertaken at a time of year considered optimal for undertaking preliminary bat roost assessments, however, bats are highly mobile animals and unpredictable in nature, and as such, they can begin roosting in suitable structures at any time.

The results of this report are valid up to 18 months and/or if the conditions of the site change significantly, as per the Advice Note on the lifespan of ecological reports and surveys produced by CIEEM in 2019⁴.

⁴ <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

3 RESULTS

3.1 Desk Study

3.1.1 Natural England Protected Species Licences

Within 2 km of the site there are four records for licences issued by Natural England for works affecting bats entered on the MAGIC⁵ website. These licences relate to the destruction of known resting places of brown long-eared bats *Plecotus auritus*, Common Pipistrelle bats *Pipistrellus pipistrellus*, Natterer's bats *Myotis nattereri* and Soprano Pipistrelle bats between 2010 and 2020.

The closest record relates to a known soprano pipistrelle bat roost 415 m southwest of the site in 2020 (2020-45673-EPS-MIT-1), from 2020.

3.1.2 Local Environmental Centre Records

A search by TVERC returned 21 records for bats recorded within 2 km of the site since 2010. These records relate to observations of brown long-eared bats, common pipistrelle bats, noctule bats *Nyctalus noctula* and soprano pipistrelle bats.

Five of these records are related to roosting bats, with the closest known roost being a brown long-eared bat roost 612 m northeast of the site in 2015.

3.1.3 Local Planning Applications and Bats

Little Castleman's, located 16 m east of the site, was subject to a bat emergence survey schedule in 2019. It was concluded that Little Castleman's hosts an occasional day roost for an individual soprano pipistrelle bat⁶.

3.1.4 Site Designations

Within 2 km of the site there are no Sites of Special Scientific Interest (SSSIs), no Local Nature Reserves (LNRs), no National Nature Reserves (NNRs) and no Special Areas of Conservation (SACs).

Within 10 km of the site there are no SACs designated for bat interest.

3.1.5 Priority Habitats

The nearest parcel of Deciduous Woodland is located just 45 m west of the site, whilst a significant area of Deciduous and Ancient Woodland is located 450 m north. There are many other medium and large parcels of these Priority Habitats within the local and wider landscape. Additionally, there

⁵ [Magic Map Application \(defra.gov.uk\)](https://magic.defra.gov.uk/)

⁶ https://publicaccess.wokingham.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=46057BBF3DC611EAA8DF40B034E9A633

are significant areas of woodpasture and parkland (a BAP habitat) within the local landscape. These habitats are known to support a wide range of bat species directly and indirectly through the provision of commuting and roosting opportunities, alongside high foraging potential. Viewing of aerial imagery indicates strong ecological connectivity between the site and these important bat habitats.

3.1.6 Site Context

The site is situated within a low-density residential area, surrounded by grassland, arable fields woodland and mature treelines and hedgerows. The broader landscape is characterised by similar habitat features.

Figure 2: Imagery showing the site (in red) in relation to the surrounding landscape

(Source: Google Maps, 2021)



3.2 Preliminary Bat Roost Survey

A daytime site visit was undertaken on 16 April 2025. At the time of the survey the temperature was 14°C in overcast but clear conditions. Additional site photos can be found in the Appendices.

3.2.1 Structure B1

B1 is a two-storey mid-terraced residential property, characterised by a tiered roof structure composed of three consecutively adjoining simple pitched roofs, resulting in a stepped arrangement

that forms an overall square-shaped footprint when viewed from above. This configuration creates multiple rooflines and junctions. All parts of the roof have been stripped of tiles, and the timber frames are exposed. The chimney remains in-situ, along the ridge of the southernmost roof pitch. Scaffolding and plastic sheeting currently provide a cover to the remaining roof structure.

The insulation within the roof void has been significantly disturbed because of the roofing works. However, inspections were conducted where feasible, focusing on any remaining debris. Particular attention was paid to the area surrounding the chimney base, as these locations often provide potential roosting niches. During the inspection, several small fragments were recovered, which were suspected to be remnants of bat droppings and were collected for further analysis.

The southeast elevation of B1 adjoins a brick wall belonging to the neighbouring structure. In this area, several hanging tiles remain in situ. These tiles were inspected for the presence of bats and/or any evidence of bat activity; however, no such evidence was identified.

The presence of scaffolding at the front of B1 meant that the eaves could not be observed for bat roosting potential. The rear of B1 could not be accessed for an external survey.

Figure 3: Exposed roof beams and remaining chimney



3.2.2 Structure B2

B1 is located on the southwest side of a semi-detached property. The roof of Building B2 remains intact, with the tiles securely in place. A limited survey conducted from the scaffolding on the northwest side of B1 revealed that the tiles on B2 are in moderate condition, with some areas

showing gaps where tiles have lifted. Additional gaps were also noted beneath the lead flashing near the ridge.

Figure 4: The northwest roof of B2, as seen from scaffolding



3.2.3 Additional Information

During the site visit, the surveyor spoke with one of the roofing contractors, who reported that the roof was in a state of significant disrepair. The initial repairs were being carried out due to the severity of the disrepair, as water ingress was occurring.

3.2.4 DNA Analysis of Droppings

Droppings collected during the site visit were submitted for DNA analysis for the purpose of species identification. The droppings were collected into labelled sample bags and sent for analysis on 30 April 2025. The results were returned on 02 May 2025, and the species present was confirmed to be *Sorex minutus* *Pygmy shrew*.

3.2.5 On-site Habitat

The site is bordered to the southeast by hedgerows, connecting B1 to a mature garden and the surround high-quality bat habitat.

3.2.6 Tree Assessment

No trees are due to be impacted by the proposed development, therefore no tree assessments were undertaken.

3.2.7 Nesting Birds

No birds were seen nesting on site the at time of the survey, however, it is possible that birds could begin nesting on or within B1 at any time during bird nesting season.

4 EVALUATION

An inspection of B1 at Castleman's Cottage did not identify any evidence of bats; however, the reliability of the survey was significantly compromised by prior destructive works undertaken at the site. Based on the construction and condition of the adjoining structure, the presence of a known bat roost 16 metres to the east, and the surrounding landscape which offers high-quality bat foraging and commuting habitat, it is likely that B1 previously supported high potential for both void- and crevice-dwelling bat species.

The recent works have rendered B1 unsuitable for current bat use, and as such, further survey effort would not be appropriate. Instead, reinstatement of the roof should proceed with appropriate mitigation measures, informed by the findings of the desk study and site assessment. A precautionary approach must be adopted, assuming the loss of a roost of significant conservation value.

4.1 Impact Assessment

The proposed works involve the reroofing of B1. As B1 currently offers no suitable features for bat roosting, the works are considered highly unlikely to result in injury or mortality to bats. However, there remains a potential risk of disturbance to any bats that may be roosting within the adjoining B2.

Under the Conservation of Habitats and Species Regulations 2017, it is an offence to deliberately disturb bats in a manner that impairs their ability to survive, breed, rear young, or hibernate. While minor disturbance - such as limited noise or light spill - may not constitute an offence in itself, it may become so if it significantly affects the favourable conservation status of the local bat population.

Bat maternity season typically extends from May to September. Works undertaken during this period could disturb pregnant or lactating bats, with potential consequences for breeding success and local population stability.

However, the impact of not reinstating the potential roost as soon as possible, and with mitigation, could result in the total loss of an important roost (i.e. maternity), which could have even greater potential consequences for breeding success and local population stability.

Considering the above, all works must proceed under a Method Statement designed to minimise potential disturbance through control of noise, dust, fumes, lighting, and vibration. The statement should also include provision for enhancing roosting opportunities for both crevice- and void-dwelling bat species.

4.2 Method Statement

4.2.1 Timing of Works

Given that previous works may have resulted in the destruction of a bat roost, the reroofing should be completed as soon as possible to enable the reinstatement of suitable roosting conditions within B1. Moreover, tenants currently live in Castleman's Cottage and works cannot wait until after the current maternity period due to human health and safety concerns.

Due to the potential of the works to cause disturbance to bats in their maternity period, works should be completed as soon as possible to avoid the peak-maternity months of June and July.

4.2.2 Bat Access

Potential bat ingress and egress points will be integrated into the new roof.

As a precautionary measure, six bat access tiles will be integrated into the new roof at various aspects. An easy way to create access under a roof tile is to raise the tile slightly with a timber batten or small piece of tile. Alternatively, roofing contractors can create a Morris bat slate⁷ using spare lead flashing.

Some species of bat (such as soprano pipistrelle bats) will roost between the roofing felt and the tiles/slates. However, species (such as brown long-eared bats) prefer to access the loft to roost in open voids. Therefore, a hole will need to be established in the felt on the underside of at least three of the six bat access points, to allow access into the loft. The holes needn't be large (75mm long x 30mm wide) but must be established immediately adjacent to a rafter or wall. This will allow bats to land on the timber/brick/block and climb out.

Wilting the roofing felt (rather than cutting it) offers a gentler, non-destructive method of forming an opening or flap without compromising the integrity of the waterproof membrane.

In addition to bat access tiles:

- A gap will be created at the base of the chimney flashing to allow bat access into the loft;
- One bat access point under the ridge tiles will be created (20mm x 100mm);
- A crevice-dwelling maternity bat box will be installed in the loft space of B1.

4.2.3 Roofing Membrane

⁷ https://cdn.bats.org.uk/uploads/pdf/Slates-Morris-Batslate.pdf?v=1617012569&_gl=1*1xuwe7m*_ga*OTI5NjQ1NTM1LjE3NDUwOTYzNDc.*_ga_G28378TB9V*MTc0NjIwMTAxMC42LjEuMTc0NjIwMTM4M4My4wLjAuMA..

Only bituminous roofing felt that does not contain polypropylene/polyethylene filaments should be used. An example is bitumen felt type 1F, which is hessian reinforced. Non-bitumen-coated roofing membranes (formerly known as breathable roofing membranes) should not be installed into a roof that is used by bats as the long fibres that make up non-bitumen-coated roofing membranes can be pulled out by roosting bats and pose an entanglement threat to the bats.

4.2.4 Ridge System

The new roof must incorporate a wet ridge system, as dry ridge systems incorporate geotextile or fibrous membranes that can entangle or snag the claws of bats, potentially leading to injury or mortality.

4.2.5 Toolbox Talk

The statement must ensure compliance with relevant legislation, ensuring the safeguarding of bats against any injury, death or disturbance that could impact their survival. This would be achieved through a toolbox talk conducted by a suitably qualified ecologist, who should also inspect B2 for roosting bats prior to the commencement of works.

The roofing contractors must be made aware of the above recommendations ahead of the date of the works to allow them to source the appropriate materials and understand the requirements of bat access tiles.

The ecologist must return to the site within one week of the works, prior to the removal of scaffolding, to complete compliance checks.

4.3 Nesting Birds

No evidence of bird nesting was identified on or within B1. However, birds could potentially begin nesting anywhere on site at any time during bird nesting season. The proposed works could therefore cause disturbance, injury or death to nesting birds.

If work is to be carried out during bird nesting season (March to August, inclusive), the homeowner and site contractors must be aware of their obligations towards nesting birds and must check for them prior to commencing the works. If an active bird nest is discovered, an exclusion zone must be put in place (minimum 5m), and works must be halted in that area. Breeding birds and their nests are protected by law and all active nests must be retained until the young have fledged. Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works.

5 CONCLUSION

Although no evidence of bat roosting was identified at Castleman's Cottage, a precautionary method should be applied to compensate any potential losses. This will be done via the works being completed under a Method Statement, treating B1 as a lost roost for both void and crevice dwelling bat species.

The proposed retiling works may result in the disturbance of bats which could be roosting within the neighbouring property. As the roof of B1 needs reinstating as soon as possible, it should be done before the peak maternity period (June-July) to avoid disturbance to bats in a manner that impairs their ability to survive, breed, rear young.

Recommendations for appropriate working methods during the bird nesting season would ensure nesting birds were not affected by the proposals.

6 APPENDICES

6.1 Additional photos from the Site Visit on 16 April 2025

















6.2 Bat Legislation

All species of bats receive special protection under UK law, including the strict species protection provisions of the EU Habitats Directive as implemented in England and Wales by Part 3 of the Conservation of Habitats and Species Regulations 2019 (the “2017 Regulations, amended by the 2019 Regulations due to Britain leaving the EU”), and Part 1 of the Wildlife and Countryside Act 1981 (as amended).

Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended by the 2019 Regulations) makes it illegal to:

- i. Deliberately capture, injure or kill a bat;
- ii. Deliberately disturb bats in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young; or
- iii. Damage or destroy a roost – regardless of whether the action was deliberate or not.

Furthermore, the Wildlife and Countryside Act 1981 (as amended) makes it an offence to intentionally or recklessly disturb bats whilst they are occupying a structure or place which is used for shelter or protection, or to damage, destroy or obstruct access to this structure or place.

Eight of the UK bat species are also listed as Priority Species on the UK BAP⁸, highlighting them as species of conservation concern.

6.3 Industry Guidance and Standards

This report has been written with consideration to:

- Bat Conservation Trust (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines. 4th edition.
- Bat Conservation Trust (2019). National Bat Monitoring Program Annual Report 2019.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

⁸ [UK Biodiversity Framework - Biodiversity policy & advocacy - Bat Conservation Trust \(bats.org.uk\)](https://www.bats.org.uk/biodiversity-framework/)

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected? <http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf>
- Harris, S. & Yalden, D. (2008). Mammals of the British Isles: Handbook, 4th Edition. The Mammal Society, Southampton.
- Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the Built Environment Series Publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting
- Mathews F, and Harrower C. (2020). IUCN – compliant Red List for Britain's Terrestrial Mammals. Assessment by the Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage. Natural England, Peterborough ISBN 978-1-78354-485-1.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary (BS 42020, 2013).

6.4 Table 4.1 from Bat Surveys for Professional Ecologists: Good Practice Guidelines

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure 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 ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

6.5 Planning Policy

National Planning Policy Framework 2024

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 recreation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) 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; measurable gains in biodiversity in and around developments are incorporated; 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.