



Old School House, Ash Thomas, Tiverton, Devon EX16 4NT

Mr. Lilly

Bat Survey – Emergence and Activity Surveys

03/10/2023

Status	Issue	Name of Author/Reviewer	Date
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Executive Summary

Quantock Ecology Ltd undertook a suite of emergence and activity surveys at Old School House, Ash Thomas, Tiverton, Devon EX16 4NT on the 2nd August and 23rd August 2023. The survey followed on from a Preliminary Roost Assessment for bats and breeding birds undertaken by Quantock Ecology during May 2023. The aim of the assessment is to determine the presence or likely absence of bats and if present, characterise the roost including species, numbers and levels of activity, to identify entrance and egress points, and to gain an understanding of the activity of bats using the building in the local landscape.

The development proposals briefly comprise the demolition of existing extensions on a dwelling, with new extensions to be built in their place.

Table 1: Summary of results

Building reference	Presence/likely absence of roosting	Roost character	Recommendations for further survey and/or mitigation
B1 – Existing Dwelling	Confirmed roost	Small day roost for a single soprano pipistrelle <i>Pipistrellus pygmaeus</i> bat.	<p>The roost identified will not be affected by the proposed development. It is also considered a suitable distance from the proposed works, that the project will not cause any noise or vibration disturbance. As such, no further action is required.</p> <p>However, if plans change and the roosts are to be impacted then the site is suitable to be registered by an approved consultant, under the low impact bat mitigation class license system.</p>

1.0 Introduction and Context

1.1 Background

Quantock Ecology were commissioned by Mr. Matthew Lilly to undertake a suite of emergence and activity surveys at Old School House, Ash Thomas. The assessment is informed by the Bat Conservation Trust publication: *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, J, (ed.), 2016).

The Preliminary Roost Assessment, undertaken in May 2023 by Quantock Ecology, suggested B1 provided moderate habitat value for roosting bats due to suitable features for crevice dwelling species noted on the building.

1.2 Aims and Objectives

This report provides a description of the bat activity observed and recorded during each survey, notably the egress and entrance points on the building; the numbers and species of bats using the roosts; and the type and levels of activity in and around the roost sites. The aim of the assessment was to determine the presence or likely absence of roosting bats and to gain an understanding of how bats (if present) use the building. The objectives of the surveys were to gain an understanding of the species, numbers and access points, roosting locations, timing of use and type of roost.

Robust data has been collected, following good practice guidelines, to inform an assessment of the potential impacts of the proposed development on bats, and inform any mitigation and enhancement measures. This report provides information on constraints to the proposals as a result of roosting bats, and summarises any mitigation required to achieve Planning or other statutory consent, and to comply with wildlife legislation.

1.3 Scope of the Report

Survey plans are presented in Appendix 1, showing the location of each surveyor and the bat activity observed and recorded during each survey; site plans showing the current site layout and proposed development will be shown in Appendix 2 upon receipt; proposed mitigation (if applicable) is outlined in Appendix 3 and a summary of relevant legislation can be found in Appendix 4. This report should be read in conjunction with the *Preliminary Roost Assessment – Old School House* (Quantock Ecology, 2023).

1.4 Site Context

The site is located at National Grid Reference ST 002 107 and comprises an area of approximately 0.01ha. There is one building within the survey boundaries.

The site is situated within the small village of Ash Thomas, Devon ~3.2km southeast of the town of Tiverton. The local landscape is predominantly a mixture of arable and pastoral farmland, bordered by mature hedgerows with scattered trees. Small areas of woodland are found ~300-400m south of the site and other areas of woodland are found within the local landscape. Small ponds are located ~250 and ~430m northeast of the site. Connectivity to and from the site into the wider landscape is present; mostly in the form of the residential gardens surrounding the site, leading to mature tree heavy hedgerows and woodland features.

1.5 Project Description

This report is prepared to accompany a planning application to be submitted to Mid Devon District Council. It is proposed that four single height extensions will be demolished, to be replaced with single height extensions; one of which will be built near to the northwest gable end of the building. The plan showing the proposed works is included in Appendix 2. The programme for the scheme is yet to be confirmed.

All works areas, storage and haul routes will be included within the site boundaries; access will be provided by existing roads and as such, no additional working footprints are anticipated.

2.0 Methodology

2.1 Site Survey

2.1.1 Surveyors and weather conditions

The surveys were undertaken and overseen by Alex Bridel BSc (Hons) AMRSB, an ecologist with over 4 years' experience working with bats. Natural England bat license number: 2021-10022-CL17-BAT. Also present were experienced bat surveyors Adrian Woodhall BSc (Hons), MSc, MCIEEM, (licence number: 2015-11617-CLS-CLS), Katie Jones BSc (Hons), MCIEEM (licence number: 2015-11763-CLS-CLS), Charlotte Quaife, Emma-louise Crawford BSc, PGDip, Thomas David Miles BSc (Hons) and Shellie Jackson.

Weather conditions for each survey are shown in Table 2 below.

Table 1: Weather conditions during surveys

Date of survey	Weather conditions at start of survey	Weather conditions at end of survey
02/08/2023 (Dusk)	Temperature: 16°C Humidity: 69% Wind speed: 1/8 Cloud Cover: 100% Precipitation: None	Temperature: 14°C Humidity: 85% Wind speed: 1/8 Cloud Cover: 30% Precipitation: None
23/08/2023 (Dusk)	Temperature: 19°C Humidity: 51% Wind speed: 1/8 Cloud Cover: 40% Precipitation: None	Temperature: 17°C Humidity: 60% Wind speed: 1/8 Cloud Cover: 70% Precipitation: None

The survey methods were informed by the Preliminary Roost Assessment (PRA), which identified potential roosting and access points on the building. All buildings that were assessed as being suitable for roosting bats was subject to survey; two surveyors were used to provide sufficient coverage of all suitable structures on site. The location of each surveyor during each survey is shown in Appendix 1.

2.1.2 Timing

The dates and times of each survey are shown in the table below.

Table 2: Survey schedule, dates and times

Reference	Suitability	Survey date	Sunset/sunrise time	Survey start time	Survey end time
B1	Moderate (confirmed during survey)	02/08/2023	20:58	20:43	22:30

B1	Confirmed	23/08/2023	20:19	20:04	21:50
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2.1.3 Equipment

All surveyors utilised high powered torches, an echo meter touch (EMT2 Pro) connected to an apple iPad/Android device. Two-way radios were also used to communicate between surveyors across the site. A Canon XA11 infrared camcorder supplemented with infrared flood lights was utilised on each survey.

2.2 Limitations

This survey follows best practice guidance to confirm presence/absence of roosting bats and where present, characterise the roost. However, this information is collected at finite dates and times, and provides an indication of the conditions on site only. The use of the structures and trees, and site as a whole, by bats, at all times cannot be established based on this information.

No site-specific limitations were noted during the surveys, which were undertaken during the optimal survey season.

3.0 Results

3.1 Survey Results

3.1.1 Presence/absence and roost characterisation surveys

Building 1

A total of one individual soprano pipistrelle bat was recorded emerging from the building during both surveys. Activity around the site was predominantly of common pipistrelles *Pipistrellus pipistrellus* foraging, with passes of serotines *Eptesicus serotinus*, long-eared bats *Plecotus* sp. and unidentified myotis *Myotis* sp. species also recorded.

This information is shown on the plans in Appendix 1 and in tables 4, 5 and 6.

Table 3: Summary of survey results, Survey Date: 08/09/2023

Surveyors: A: Alex Bridel B: Adrian Woodhall C: Katie Jones D: Charlotte Quaife			
Survey Date: 08/09/2023			
Building reference	Surveyor and Position	Start Time – End Time	Brief summary of passes and behaviour observed
B1 Existing Dwelling	Surveyor A, (located on the southern corner of B1)	20:43 – 22:30	The first bat recorded was a soprano pipistrelle, emerging from the roof of the dormer window on the southwest elevation of the building. After emerging the bat flew off northeast. An unseen common pipistrelle was recorded at 21:13. Common pipistrelle were recorded throughout the survey from this time until the end of the survey, passing in various directions and foraging within the gardens around the building. Unseen noctules <i>Nyctalus noctula</i> were recorded sporadically from 21:21 until ~21:50. Unseen serotines were recorded passing at 21:43, 21:48 and 21:51. A single myotis was recorded passing east between the surveyor and B1 at 21:59. Unseen long-eared bats were recorded passing at 22:08 and 22:23. The final bat recorded was a non-echolocating individual passing east between the surveyor and B1 at 22:11.
B1 Existing Dwelling	Surveyor B, (located on the eastern corner of B1)	As above	Common pipistrelles were recorded throughout the survey from 21:07 until the end of the survey, passing in various directions and foraging within the gardens around the building. Soprano pipistrelles were recorded from 21:27 until 21:36 foraging within the gardens to the north of B1. A single noctule was recorded passing southwest over the site at 21:38. A single unseen serotine was recorded passing at 21:43 and a single unseen unidentified myotis passed at 21:58. Passes of unseen long-eared bats were recorded at 22:13 and 22:23.

B1 Existing Dwelling	Surveyor C, (located on the northern corner of B1)	As above	The first bat recorded was a common pipistrelle passing south over the site at 21:04. Common pipistrelles were recorded throughout the survey from this time until the end of the survey, passing in various directions and foraging within the gardens around the building. Unseen noctules were recorded passing at 21:20, 21:36 and 21:44. A single unseen serotine was recorded passing at 21:50. Unseen long-eared bats were recorded passing at 21:01, 22:07 and 22:12. A single, unseen unidentified myotis was recorded passing at 22:16.
B1 Existing Dwelling	Surveyor D, (located on the western corner of B1)	As above	The first bat recorded was a common pipistrelle passing south over the site at 21:04. Common pipistrelles were recorded throughout the survey from this time until the end of the survey, passing in various directions and foraging within the gardens around the building. A non-echolocating bat was recorded passing southeast over B1 at 21:17. Unseen noctules were recorded passing at 21:21, 21:45, 21:50 and 22:16, one individual was recorded passing south over the site at 21:37. Unseen serotines were recorded passing unseen at 21:44 and 21:52. A single unidentified myotis was recorded commuting south over the site at 21:58. A single long-eared bat was recorded passing west over the site at 22:02.

Table 4: Summary of survey results, Survey date: 23/08/2023

Surveyors: B: Adrian Woodhall E: Tom Miles F: Emma-Louise Crawford G: Shellie Jackson			
Survey Date: 23/08/2023			
Building reference	Surveyor and Position	Start Time – End Time	Brief summary of passes and behaviour observed
B1 Existing Dwelling	Surveyor B, (located on the northern corner of B1)	20:04 - 21:50	The first bat recorded was a noctule passing unseen at 21:30. A soprano pipistrelle was recorded passing unseen 20:33, a soprano pipistrelle was recorded foraging within the garden to the north of B1 from 20:50 until 21:38. Common pipistrelle were recorded from 20:39 until the end of the survey, passing in various directions and foraging within the gardens around the building. Unseen unidentified myotis were recorded passing at 21:05, 21:23 and 21:28. Unseen long-eared bats were recorded passing at 21:17, 21:20, 21:25 and 21:29.
B1 Existing Dwelling	Surveyor E, (located on the southern corner of B1)	As above	The first bats recorded were noctules passing unseen at 20:29 and 20:31. A noctule was also recorded foraging briefly high above the site at 20:42. A soprano pipistrelle was recorded passing unseen at 20:33. An unseen serotine was recorded passing unseen 21:02. Unseen long-eared bats were recorded passing at 21:09, 21:14 and 21:20. A single unseen unidentified myotis was recorded passing at 21:17. The final bat recorded was a common pipistrelle passing unseen at 21:28.
B1 Existing Dwelling	Surveyor F, (located on the western corner of B1)	As above	Noctules were recorded passing occasionally between 20:29 and 20:55. Common pipistrelles were recorded foraging and passing over the site in various directions from 20:35 until the end of the survey. An unidentified myotis was recorded passing southwest over the surveyor at 21:05 and another was recorded passing unseen at 21:31. The final bat recorded was a soprano pipistrelle passing unseen at 21:31.

<p>B1 Existing Dwelling</p>	<p>Surveyor G, (located on the northern corner of B1)</p>	<p>As above</p>	<p>An unseen noctule was recorded passing unseen at 20:28. A noctule was also recorded foraging briefly high above the site occasionally from 20:29 until ~21:00. A soprano pipistrelle was recorded passing northwest between the surveyor and B4 at 20:33. Common pipistrelle were recorded passing unseen at 20:35 and foraging over the site at 20:39, 20:41 and 20:46. At 20:46 a soprano pipistrelle was recorded emerging from the eaves on the eastern corner of the main roof before flying off southeast. A single unseen serotine was recorded passing at 21:03. An unseen unidentified myotis was recorded passing unseen at 21:05. Unseen long-eared bats were recorded passing six times between 21:08 and 21:25.</p>
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4.0 Conclusions and Impact Assessment

4.1 Conclusions

The main conclusions of the PRA and emergence surveys undertaken at this site are described below. One building was surveyed, following recommendations made in the PRA.

A single soprano pipistrelle was recorded emerging from the roof of the building during both surveys, from roof tiles by a dormer window on the first survey and from the eaves of the main roof during the second. No bats were recorded roosting within the various extensions on the building set for demolition. Foraging and commuting activity of other bat species was recorded; however, no important commuting routes or foraging areas were identified.

4.2 Impact Assessment

As there will be no impacts to the main roof under the proposed development no bats roosts will be directly affected by the proposed development. As such, a European Protected Species Mitigation Licence is not required in this instance. However, if the proposed plans are changed and the roof or eaves are to be affected then a licence may be required (dependent on the extent of the works).

Bats are protected under the Wildlife and Countryside Act and Conservation Regulations; see Appendix 3 for a summary of legislation protecting bats in the UK.

4.3 Recommendations

4.3.1 Mitigation

As no roosts are to be impacted by the proposed development no mitigation is required. However, 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.

Careful consideration should be given to any future lighting across the site. Bats were observed using the gardens to the north and south of the building for foraging and commuting. As such, the lighting of these areas should be maintained as close to current conditions as possible. Any future lighting should be kept to a minimum, and in line with guidance produced by the Bat Conservation Trust and Institute of Lighting Professionals: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>.

4.3.2 Enhancements

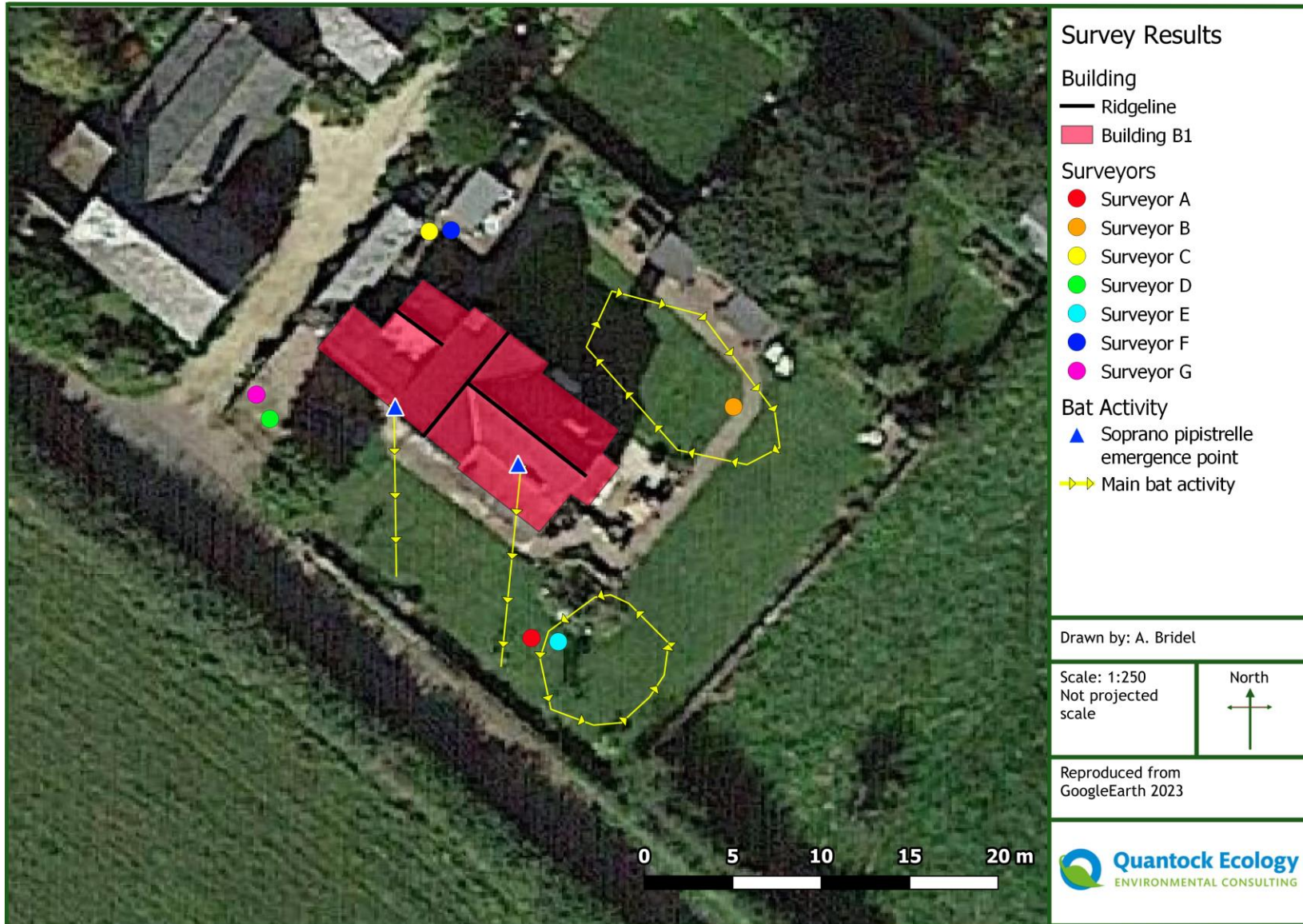
The installation of a single Schwegler 1FF or 2FN bat box could be considered; erected on the existing dwelling or any suitable trees on site. This should be installed facing a southerly direction, approximately 3-5m above ground level. Such bat boxes would provide additional roosting habitat for bats present within the local area.

5.0 Bibliography

- Barn Owl Trust (2012) Barn Owl Conservation Handbook, Pelagic Publishing, Exeter.
- 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?
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendices

Appendix 1: Survey Plan



Appendix 2: Proposed Site Plan

Refer to Building Regulation Drawings for Full Specifications - Please Note: We Recommend All Drainage is Surveyed
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Visual Scales:
 Left Side Elevation: VISUAL SCALE 1:50 @ A1
 Right Side Elevation: VISUAL SCALE 1:50 @ A1
 Rear Elevation: VISUAL SCALE 1:50 @ A1
 Front Elevation: VISUAL SCALE 1:50 @ A1

3 Left Side Elevation
1 : 100

4 Right Side Elevation
1 : 100

2 Rear Elevation
1 : 50

1 Front Elevation
1 : 50

Wall Structure Key:

- Cavity Wall: Render
- Cavity Wall: Face Brick
- Block Work: 100mm
- Studwork Wall: 75mm
- Metal Frame: 70mm
- Solid Brick Wall: 215mm
- Solid Block Wall: 215mm
- Structural Opening
- Walls Removed

Drainage Key:

- S Storm Drainage
- MH Manhole
- FD Foul Drainage
- SVP Soil Vent Pipe
- GP Gully Pot
- RWP Rainwater Pipe
- AD ACO Drain

Ducting Colour & Use:

- Red Electric cable
- Yellow Gas Pipe
- Blue Water pipes
- Green Data/Comms
- BT
- Purple Security - Cameras
- Orange Garden Lighting non Security

Front Elevation Level Markers:

- Ridge Level: 7130
- Ceiling FF: 4900
- First Level: 4550
- First Floor Plan: 2000
- Ceiling GP: 2410
- Ground Floor Plan: 0
- Birth Course: -150

Client Information:
 CLIENT: Matthew Lilly
 SITE ADDRESS: Old School House Ash, Thomas EX16 4NT

Project Information:
 PROJECT NAME: Proposed Extension - Front & Rear
 DRAWING NAME: Proposed Elevation Plans

Company Information:
 DRAWING NUMBER: P1-2
 BRO ARCHITECTURE: DESIGNING YOUR DREAMS
 Mobile: 07508 856621
 Website: www.broarchitecture.co.uk
 E-mail: info@broarchitecture.co.uk

Revision Table:

DATE	REV
19th Apr 22	
DRAWN BY: SH	SCALE (B A1): As indicated
CHECKED BY: Client	PROJECT NUMBER: SHPRO080422-ML

Appendix 3: Proposed Mitigation

None required based on the current proposals.

Appendix 4: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (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.

Contact details:

Quantock Ecology Ltd
01823 414457
enquiries@quantockecology.co.uk

Quantock Ecology Ltd
<https://quantockecology.co.uk>