SC Ecology

Oriel Cottage
51 Doulting
Shepton Mallet
Somerset
BA4 4QE

Preliminary Bat Roost Assessment

October 2022

Reference: SC_002_R01_Oriel Cottage_PRA

SC Ecology

Contents

1.0 Introduction

This Preliminary Bat Roost Assessment (PRA) has been prepared by SC Ecology Ltd on behalf of Mr and Mrs Howell for the proposed development at Oriel Cottage, 51 Doulting, Shepton Mallet, Somerset, BA4 4QE, hereinafter referred to as the site. A planning application for the conversion of outbuilding to ancillary accommodation and formation of a link to the existing kitchen is to be submitted to Mendip District Council in Autumn 2022. The site is centred on National Grid Reference ST 64732 43232 and the site boundary is shown in Figure 1 below.

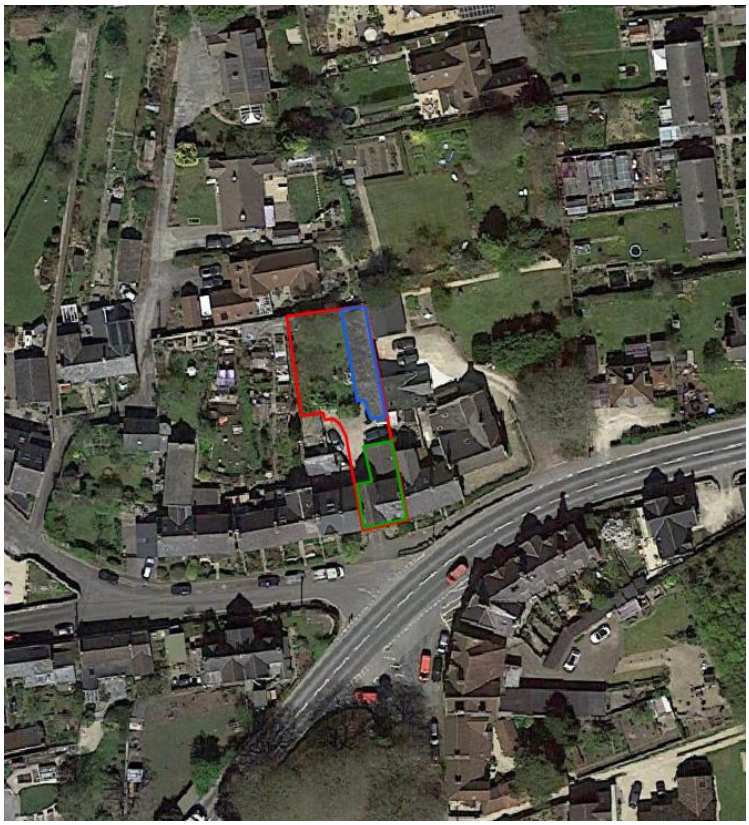

Figure 1: Site boundary (red line), outbuilding (blue line) and main house (green line)

1.1 Context

The site is located within the village of Doulting, approximately 2.25km east of Shepton Mallet. The current building lies within the garden of 51 Doulting and accessed through an archway off Church Lane to the south. The site is bounded by residential gardens to the west and north, further buildings and hardstanding to the east and terraced houses to the south.

1.2 Purpose

The purpose of this report is to:

- Use background data and field surveys to determine the presence/likely absence of roosting bats within the onsite building;
- Assess the potential impacts to roosting bats associated with the proposed development; and
- Describe mitigation and enhancement, together with planning controls to ensure their delivery, to ensure conformity with policy and legislation.

2.0 Protected Species Legislation

All British bat species are fully protected by the Wildlife & Countryside Act (WCA) 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any bat.

Under the National Planning Policy Framework (NPPF) 2019, the presence of any protected species is a material planning consideration. The Framework states that impacts arising from development proposals must be avoided where possible or adequately mitigated / compensated for, and that opportunities for ecological enhancement should be sought.

Under certain circumstances a licence may be granted by Natural England to permit activities that would otherwise constitute an offence. In relation to development, a scheme must have full planning permission before a licence application can be made.

Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. They must therefore consider and determine whether these three tests are likely to be satisfied by planning proposals affecting European Protected Species (EPS) before granting planning permission

Relevant legislation includes the WCA 1981 (as amended), which states that all birds, their nests, and eggs are protected by law. Special considerations of Schedule 1 birds and European Protected Species should be made. Relevant legislation includes the Conservation of Natural Habitats and Species Amendment (EU Exit) Regulations which came into force on 31 December 2020.

3.0 Methodology

3.1 Preliminary Roost Assessment (PRA)

The purpose of a PRA is to determine the suitability of buildings, structures and trees within the site boundary to support roosting bats. The PRA follows the guidance set out within Bat Conservation Trust (BCT) Good Practice Guidelines[1] and the Bat Mitigation Guidelines[2]. The building onsite was assessed for its potential suitability to support roosting bats using the categories described in Table 1 below.

The PRA was undertaken on the 25th August 2022 by Sara Curtis, Ecologist, bat licence holder (Level 1 – licence number 2020-40968-CLS-CLS) and full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and Ruby Edwards, assistant and comprised an external and internal inspection of the building onsite. The weather conditions during the survey were dry, with a light breeze, 21°C and 0% cloud cover. The PRA survey was aided by a high-powered torch and binoculars where necessary. For the internal inspection, notes were made relating to the relevant characteristics of the building which could provide potential access points and roosting opportunities for bats.

Direct evidence of the presence of roosting bats was also sought, in the form of:

- Bats in situ;
- Feeding remains such as butterfly/moth wings;
- Bat droppings;
- Dark staining caused by bat faeces;
- Splashes and staining caused by urine;
- Polished surfaces at a possible access point;
- Staining caused by the natural oils in bat fur; and
- Scratch marks made by bat claws.

The building was assessed for its potential to support roosting bats and placed into one of the four following categories, in line with BCT guidelines[1], as displayed in Table 1 below.

Table 1 Categories for assessing a buildings bat roosting potential (BCT Good Practice Guidelines)

Categorisation	Description of Roosting Features
High	A structure with one more roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis or for longer periods of time.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
Low	A structure with one or more potential roost sites that could be used by bats opportunistically.
Negligible	Negligible habitat features on site likely to be used by roosting bats

As part of the PRA, consultation with the Multi-agency Geographic Information for the Countryside (MAGIC) website was also undertaken to ascertain any EPS mitigation licences

[1] Collins, (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd edition. Bat Conservation Trust, London.
[2] Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

granted in respect of bats within a 2km radius of the site and to identify any statutory sites within 5km of the site designated for bats.

3.2 Emergence Survey

Two emergence survey were undertaken on the outbuilding of the site which was identified as having moderate potential to support roosting bats. Dates, weather conditions and timings are provided in Table 2, and survey effort was informed by best practice guidelines[1]. Weather conditions were suitable and no constraints were identified during the survey.

Table 2: Emergence survey weather conditions

Visit	Date	Sunset Time	Weather Conditions			
			Air temp at sunset (°C)	Precipitation	Cloud Cover (%)	Wind at sunset (Beaufort)
1	25/08/2022	20:11	20.5	Dry	0	2
2	20/09/2022	19:13	17	Dry	10	0

Two surveyor was used for adequate coverage. One surveyor was located facing the north western aspect of the outbuilding and one surveyor facing the south and south eastern aspect of the outbuilding. Bat echolocation calls were monitored in the field using Echo Meter Touch Pro 2, recording in full spectrum. Bat Explorer software was used to analyse sonograms of any calls which could not be identified in the field. The survey was aided and recorded on a Nightfox Red HD Infrared Night Vision Goggles mounted on a tripod with an additional Nightfox XB5 Infrared Torch.

In line with survey guidance[1], the dusk surveys began 15 minutes before sunset and continued for a minimum of 1.5 hours after sunset.

3.3 Limitations

Ecological surveys are limited by any factors which could affect the presence/likely absence of flora and fauna. These include the time of year, weather conditions, migration patterns, and behaviour. Accordingly, any ecology assessment must be considered as a ‘snapshot’ of the site conditions at the time of the survey as ecological constraints will change over time. Furthermore, many species are mobile in nature and might leave the site frequently. The evidence (or absence of evidence) of a species should therefore not be taken as conclusive proof that this species is or is not present, or that it will or will not be present in the future. As an example, bats do not always leave visible signs of their presence on the external features, and if left these signs can be washed away by wet weather.

The survey undertaken for this report was conducted in August and September, and it is therefore based on and limited by the conditions encountered and information available at the time. However, due to the nature of the building, the timing of the survey is not considered to be a significant limitation to this report.

During the second survey, the southern bat detector failed to record. However, as no bats were observed emerging from the building in this location, and the close proximity of the surveyor to the second surveyors in the north of the site, it is considered that generally bat activity on the site can be fully assessed from the surveys undertaken and it does not affect the conclusions of this report.

According to CIEEM guidance, the findings of this report are considered to be valid for a period of 12 to 18 months from the date in which the survey was undertaken, after which the survey should be repeated to ensure the baseline conditions have not changed.

4.0 Ecological Features and PRA Results

4.1 Existing Information

No current or expired EPS licences were identified on MAGIC from within 2km of the site.

The site lies approximately 3.9km south east of the Mells Valley Special Area of Conservation (SAC) which is designated for a number of habitats, but also for its Annex II species that are a primary reason for selection of this site: Greater horseshoe bat *Rhinolophus ferrumequinum*. The site lies outside of the Consideration Zone of the Mells Valley SAC which is located approximately 1.5km north east of the site.

4.2 Surrounding Habitats

The site is located in the small village of Doulting. The village is within a relatively rural location, surrounded mainly by arable and pastoral fields, bordered by native hedgerows and woodland belts. The Doutling Stone Quarry lies 0.35km north east of the site. The site is access through an archway from Church Road to the south of the site. The current building is located within a residential garden of the main property (51 Doulting). A residential garden associated with the main property is located adjacent to proposed building including a small, lined garden pond, introduced shrubs, short sward modified garden and scattered young to semi-mature hawthorn *Crataegus monogyna* and silver birch *Betula pendula* trees.

4.3 Preliminary Roost Assessment

The site comprises a single storey, stone built building with a half pitched, slate tiled roof used as an outbuilding (Figure 2). Gaps are present where the roof of the building meets the stone wall along the western aspect of the building, and the roof overhangs a hardstanding path along the edge of the building. Externally, windows are located along the western aspect and access is gained via a stable door to the south and glass patio doors to the north (Figure 2). Both of these doors are open for the majority of the time providing internal access into the building. The building is connected in parts to an adjacent building to the east of the site where lead flashing is present. A number of tiles are slightly raised and a gap between the flashing and gable is present on the north western aspect (Figure 3).

Figure 2: External view of barn surrounded by residential garden with glass door

Figure 3: Raised tiles and gap beneath lead flashing at the northern end of the building

Internally, the building is open to the wooden rafters and the tiles are backed by felt. Generally, the felt is in a good state of repair and used regularly by the current tenants of the main property for storage and a workshop (Figure . Internally, light enters through the windows and doors and a draft runs through the building from the two open doors and gaps above the eastern wall. A number of shallow holes are present within the stonework along the internal eastern wall.

Figure 4: Internal view of building

The outbuilding has a number of features which have the potential to support roosting bats, including access into the internal space. It is therefore considered to have **moderate potential** to support roosting bats.

Immediately to the south of the building is an area of hardstanding used for parking, then a single storey, brick built building which forms the kitchen and utility area to the main property (Figure 5). This adjoins to the terraced houses along Church Lane. The kitchen and utility area of the main house has a pitched, tiled roof with wooden soffits and lead flashing present where the building adjoins the terraced property. The main property is in a good state of repair and was assessed as providing **negligible potential** to support roosting bats.

Figure 5: External view of kitchen and utility building of the main house

4.4 Bats – Internal Inspection

During the internal inspection on the 25th August 2022, an individual lesser horseshoe bat *R. hipposideros* was recorded hanging from a wooden beam within the outbuilding. Approximately 10 droppings which are characteristic of a lesser horseshoe were also observed beneath the lesser horseshoe bat (Figure 6). During the second emergence survey on the 20th September 2022, an individual lesser horseshoe bat was again observed within the building with a scattering of approximately 10 further droppings characteristic of the species.

Figure 6: Scattered lesser horseshoe bat droppings within the outbuilding

During the second survey, a further scattering of 5 droppings were also recorded within the building beneath a wooden beam within the north of the building. The droppings are black in colour, 6-7 mm in length and 2.3 mm wide, medium in size with medium particles. Overall, given the dropping shape, size, particle size, roost type and location, the droppings are characteristic of a whiskered bat *Myotis mystacinus* (Figure 7). Apart from the lesser horseshoe bat, no other bats were identified within the building.

Figure 7: Droppings characteristic of whiskered bat

4.5 Bats – Emergence Survey

During both emergence surveys, one lesser horseshoe bat was seen emerging from the open glass doors in the north of the building at 20:40 on the 25th August 2022 and 19:41 on the 20th September 2022. On both occasions, the lesser horseshoe was observed light sensing around the glass door prior to emergence. It is therefore considered that the building has a day roost of an individual lesser horseshoe bat.

During the second survey, a Myotis bat emerged from the open glass doors in the north of the building at 19:40. Analysis of the spectrogram post-survey shows the call is characteristic of a whiskered bat with a peak frequency between 45 – 47.3kHz, length between 2.4 – 3.2ms, the majority of maximum frequency between 91.3 – 95.3kHz and a minimum frequency between 34.3 – 39.3kHz.

No other bats were seen emerging from the building during the survey.

General levels of bat activity on the site were by occasional passes of serotine *Eptesicus serotinus,* myotis sp. leisler's *Nyctalus leiseri,* noctule *N. noctule,* common pipistrelle *Pipistrellus* and soprano pipistrelle *P. pygmaeus.* Full surveys results are shown in Appendix A.

5.0 Impacts, Mitigation and Enhancements

5.1 Proposed Development

The proposed development is to convert the existing outbuilding into ancillary accommodation and formation of a link to the existing kitchen from the outbuilding. The proposed development will result in the loss of hardstanding and disturbance to the outbuilding. The residential garden, including the trees will be retained as part of the proposals.

5.2 Bats

The proposed development includes the conversion of the outbuilding which will result in the loss of a day roost of an individual lesser horseshoe bat and an occasional transitional day roost of an individual whiskered bat.

Due to the loss of the protection afforded to roosting bats, a Natural England development licence will need to be applied for once planning consent is granted. This licence will ensure that no bats are killed or injured during the construction phase of the development. Both roosts are considered to be of low conservation significance, therefore a Bat Mitigation Class Licence CL21 (BMCL) can be applied for.

The BMCL will be applied for prior to work commencing. The BMCL registered ecologist on the approved licence will attend the site to carry out an inspection of all roost features to check for any bats present. The methods of working will include:

- Prior to works commencing on the site, a toolbox talk will be provided by the licenced ecologist to all contractors working on the site. This will inform them of the ecological constraints and considerations relevant to the construction works, including the presence of roosting bats. This will include identification of the species, their legal protection and necessary mitigation measures, including what to do if any of these species are encountered on the site, during site works;
- All potential roosting features will be inspected using a high-powered porch, endoscope and ladder where required;
- The licenced ecologist will oversee the soft-strip and removal of any weatherboards, soffits, or roofing felt as necessary, until the features are rendered unusable by bats ahead of works commencing. Where this is not possible, features will be removed as soon as reasonably feasible following inspection, as directed by the licenced ecologist. At the end of each construction day, the doors into the outbuilding will be sealed to prevent access for bats overnight;
- In the event that a bat is found during the soft strip of the bat roosting features, the licenced ecologist will transfer the bat to a suitable lidded container. If a lesser horseshoe bat is found, this will be released from the residential garden between sunset and 1 hour after sunset. Any Whiskered bat will be placed in a bat boxes erected on a tree within the residential garden which will be erected in advance of the works taking place;
- In the event that a bat is found when the licenced ecologist is not present onsite, all works must be stopped and the licenced ecologist contacted for advice.

Due to the nature of the roosts (day roost), it is unlikely to be timing restrictions to the works. However, optimal period for carrying out the works is between September and May inclusive.

To compensate for the roost loss and to provide increased opportunities for roosting bats, one wooden log store with a pitched roof will be located adjacent to the north western aspect of the new building and a bat box will be installed on a tree within the residential garden.

The bat box will be 1FF Schwegler Bat Box, Ibstock Enclosed Bat Box, or similar and will be installed as per the manufacturers guidelines on a flat aspect of a retained tree, between a height of 3 – 5m facing south to south west.

Furthermore, no additional external lighting should be proposed to retain the similar levels to the current levels onsite. This includes no lighting directed towards the log store or bat box on a retained tree.

Guidance on bats[3] states that for projects that would affect roosts of low conservation significance do not require monitoring post construction. However, bat boxes should be inspected for any damage on a yearly basis, and if any remedial action is required, a suitably qualified bat licenced ecologist (class 2 licence) will be required to check the existing box.

5.3 Nesting Birds

In England and Wales, birds and their nest are protected under the Wildlife and Countryside Act (1981) (as amended).

The site has the potential to support nesting birds within the building present. As such any demolition of the building occurring during the breeding bird season (generally considered to be between March – August inclusive) should be informed by a pre-works check of the building by a suitably qualified ecologist prior to the demolition to determine if any nesting birds are present. Should any active nests be discovered which contains either eggs or chicks, the nest must be retained and buffered until a suitably qualified ecologist has confirmed the chick have fledged.

[3] Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines, English Nature, Peterborough

6.0 Conclusions

In conclusions, a day roost of an individual lesser horseshoe bat and a transition roost of an individual whiskered bat is present within the outbuilding on the site. To enable the works to proceed legally, a BMCL from Natural England is required for the conversion of the building. This will be applied for once planning consent is granted.

The development will provide suitable compensation for the loss of the bat roost including new roosting provisions on the site. Providing the advice stated within this report is adopted, , then it is considered that the proposed works will not trigger current legislation and will be in conformity with planning policy.

Appendix A: Bat Survey Results

Emergence survey – 25/08/2022

Surveyor: South/south west (grid reference SP 6473 4322)			
Time	**Species**	**Emerged**	**Activity**
20:29	Serotine	N	Pass
21:31	Serotine	N	Pass
21:33	Serotine	N	Pass
20:48	Myotis	N	Pass
20:45	Myotis	N	Pass
21:31	Leisler's	N	Pass
21:30	Leisler's	N	Pass
21:36	Leisler's	N	Pass
20:38	Noctule	N	Pass
20:40	Noctule	N	Pass
21:03	Noctule	N	Pass
20:33	Common pipistrelle	N	Pass
20:36	Common pipistrelle	N	Pass
20:41	Common pipistrelle	N	Pass
20:42	Common pipistrelle	N	Pass
20:45	Common pipistrelle	N	Pass
21:18	Common pipistrelle	N	Pass
21:29	Common pipistrelle	N	Pass
21:31	Common pipistrelle	N	Pass
21:32	Common pipistrelle	N	Pass
19:56	Lesser horseshoe	N	Pass
20:35	Lesser horseshoe	N	Pass
20:36	Lesser horseshoe	N	Pass
21:35	Lesser horseshoe	N	Pass
Surveyor: North west (grid reference SP 6472 4323)			
19:48	Noctule	N	Pass
20:32	Common pipistrelle	N	Pass south to north
20:33	Common pipistrelle	N	Pass east around building then west
20:34	Lesser horseshoe	N	Pass
20:35	Lesser horseshoe	N	Pass
20:36	Common pipistrelle	N	Pass
20:37	Lesser horseshoe	-	Light sensing around glass door
20:38	Myotis	N	Pass
20:38	Noctule	N	Pass
20:38	Lesser horseshoe	-	Light sensing around glass door
20:39	Myotis	N	Pass
20:39	Lesser horseshoe	-	Light sensing around glass door
20:40	Noctule	N	Pass
20:40	Lesser horseshoe	Y	Emerged from glass door
20:41	Common pipistrelle	N	Pass
20:44	Myotis	N	Pass
20:45	Myotis	N	Pass
20:45	Myotis	N	Pass
20:48	Myotis	N	Pass
20:58	Myotis	N	Pass
21:18	Common pipistrelle	N	Pass
21:18	Lesser horseshoe	N	Pass
21:18	Lesser horseshoe	N	Pass
21:19	Lesser horseshoe	N	Pass
21:29	Common pipistrelle	N	Pass
21:31	Serotine	N	Pass
21:31	Leisler's	N	Pass
21:31	Common pipistrelle	N	Pass
21:33	Serotine	N	Pass

Emergence survey – 20/09/2022

Surveyor: North west (grid reference SP 6472 4323)			
Time	**Species**	**Emerged**	**Activity**
19:34	Common pipistrelle	N	Pass over adjacent garden
19:35	Noctule	N	Pass
19:36	Common pipistrelle	N	Pass from behind building
19:39	Lesser horseshoe	-	Light sensing around the glass door
19:40	Whiskered bat	Y	Emerged from glass door, then flew west
19:41	Common pipistrelle	N	Pass
19:41	Lesser horseshoe	Y	Emerged from glass door
19:48	Myotis	N	Pass
19:48	Lesser horseshoe	N	Pass
19:51	Myotis	N	Pass
19:56	Soprano pipistrelle	N	Pass
20:03	Myotis	N	Pass
20:10	Noctule	N	Pass
20:14	Myotis	N	Pass
20:18	Lesser horseshoe	N	Pass
20:19	Serotine	N	Pass
20:19	Common pipistrelle	N	Pass
20:23	Serotine	N	Pass
20:25	Myotis	N	Pass
20:28	Leisler's	N	Pass
20:29	Leisler's	N	Pass
20:32	Myotis	N	Pass