Bat Survey of Barn at 63 West Street, Great Somerford, Wiltshire

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NATURAL SOLUTIONS

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Non-technical Summary

Background

In May 2023, Crossman Associates was commissioned by LPC to undertake a bat survey of a low height brick built single storey barn at 63 West Street, Great Somerford, Wiltshire, SN15 5EH.

Development proposals are to convert the barn into a residential dwelling.

Methodology

The scoping survey was undertaken by Fairbrass Knowles, a fully licensed bat worker, full member of CIEEM and experienced ecologist. The building was inspected both externally and internally for any evidence of bat / bird presence, such as droppings, food remains, staining or actual bats.

Results

The building consists of a low height C. early 20th Century brick built narrow rectangular shaped barn with a simple double pitched slate roof. Internally the barn provides one continuous bay. The barn serves as a workshop and for storage. During the survey the building provided no evidence of bats and overall, the barn is assessed to provide bats with no roosting suitability and the barn provides bats with **negligible roosting suitability.**

Recommendations

It is recommended that the following be undertaken as part of the development;

- Precautionary approach to conversion in relation to bats.
- Exterior lighting must take account of the likely presence of foraging bats
- New provision for nesting birds.

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1. Background

1.1. In May 2023, Crossman Associates was commissioned by LPC to undertake a bat survey of a small C. early 20th Century detached barn located within the grounds of 63 West Street, Great Somerford, Wiltshire, SN15 5EH; site Ordnance Survey grid reference ST 9582 8252.

1.2. Figure 1 within Appendix II provides a site location map.

1.3. The objectives of the survey were to:

- Make an assessment of the likely presence or absence of bats and birds
- Identify any legislative or planning policy constraints relevant to the site
- Determine the need for further surveys, compensation or mitigation

Site Description

1.4. The barn consists of a C. early 20th Century detached narrow brick-built barn that measures approximately 18 m x 6 m x 4 m to apex and 2 m to eaves. The barn has a simple timber double pitched roof clad with slate. The roof was renovated approximately 10 years ago *(pers com)* with new sarking layer (breathable roofing membrane) battens and the slates re-used. The barn remains in very good condition and is in full and daily use as a workshop and for general storage.

1.5. The barn is situated adjacent to the dwelling which lays on the outer south-western edge of the rural village of Great Somerford. The barn is entirely surrounded by hardstanding with the dwelling which has a small well-maintained garden and 3 further outhouse style buildings situated to the east. To the south and west the village ends and the land is occupied by extensive areas of mainly high intensity farmland. To the north West street (the main throughfare road) passes past the site beyond lays a few well-spaced dwellings which themselves

border onto farmland which encircles entirely the village which tends to a rather scattered settlement. Farmland to the north tends to be less intensively farmed.

1.6. The closest significant area of woodland is situated approximately 250 m to the south and consists of a small conifer plantation. Two lakes are situated adjacent to one another and approximately 500 m to the south-east, while a river skirts around the norther fringe of the village.

Proposals

1.7. Proposals are to convert the barn into a residential dwelling.

Legislation

1.8. In the UK all species of bats are protected under the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species Regulations, 2017. Under this legislation it is a strict liability offence to injure or destroy a bat or to disturb damage or destroy the resting place of a bat. Under this legislation the UK is obliged to fully take into account bats within the planning process and the level of bat activity on-site must be fully assessed prior to the assessment the planning application

1.9. In Britain all wild birds are granted legal protection under the Wildlife & Countryside Act ((1981) (as amended)). This legislation protects the birds, their eggs and nests whilst being built or in use.

2. Methodology

Desktop Study

Data search

2.1. The MAGIC website was accessed to gain information on any statutory site designations within 4 km of the site that are designated for bats.

National Planning Policy

2.2. National Planning Policy has been reviewed for policies that relate to nature conservation relevant to the site.

Field Survey

Bat scoping survey

2.3. The building was methodically inspected internally and externally for any evidence of roosting bats, including actual bats, droppings, urine staining and evidence of feeding activity such as discarded insect wings and cases.

2.4. The building was also assessed for their suitability to support roosting bats by considering several factors including whether bats can access internal and external voids within the building and whether these voids provide adequate protection and shelter for roosting bats. If the building is not confirmed as a roost, it is assessed from High to Negligible Suitability as follows;

- **High Suitability** – many roosting opportunities. Buildings tend to be old, large and rural
- **Moderate Suitability** – some roosting opportunities. Building tend to be old, rural with some recent maintenance

- **Low Suitability** – few roosting opportunities. Buildings tend to be modern, urban and well maintained

- **Negligible Suitability** – insignificant roosting opportunities. Buildings tend to be small, modern, urban and very well maintained.

Birds

2.5. The buildings were also inspected for the presence of birds including house sparrow *Passer domesticus* and barn swallow *Hirundo rustica.* The building was checked for field signs including nesting material, accumulations of droppings and/or pellets.

3. Results

Desktop Study

Data Search

3.1. The MAGIC website informed of no statutory sites within 4 km of the site designated for bats.

Planning Policy

3.2. National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government' planning policies for England and how they should be applied to planning applications.

<u>Conserving and enhancing the natural environment</u>

- Planning decisions should contribute to and enhance the natural and local environment by:

  a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

  b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

  c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Field Survey

Bat scoping survey

3.3. Survey work was undertaken by Fairbrass Knowles, an experienced ecologist, full member of CIEEM and licensed bat worker, (licence number 2015 CLS-CLS) and took place on 01 June 2023. The barn was fully accessible.

Building	Feature	Feature Description	Bat suitability
Barn @ 63 West Street	Overview	The barn consists of a C. early 20th Century detached narrow brick-built barn that measures approximately 18 m x 6 m x 4 m to apex and 2 m to eaves. The barn has a simple timber double pitched roof clad with slate. The roof was renovated approximately 10 years ago *(pers com)* with new sarking layer (breathable roofing membrane) battens and the slates re-used. The barn remains in very good condition and is in full and daily use as a workshop and for general storage.	Negligible Suitability ☒
	Exterior	The walls are off solid 225 mm thick brick. Walls remain mainly in good condition and provide no significant cracks or holes. Doors and windows are present on all elevations and while old all remain in good condition, with windows all remaining glazed and doors which are timber, all fitting tightly within there respective reveals. **There is no evidence of bat activity in association with the buildings exterior.**	

	Interior	The interior provide one continuous bay with a vaulted ceiling which has an exposed cut and pitch timber roof with rafters, purlins, ridge and a couple of timber A frames. Timbers all remain in good condition and provide no complexities. The sarking layer which is on show consists of modern breathable roofing membrane which is approximately 10 years old. The sarking layer remains in very good condition and showed no evidence of significant rips or holes. The interior walls are all of well-pointed and painted brick, which showed no evidence of significant cracks or holes. Due to the presence of windows on all elevations the interior is well-lit by natural light. **There is no evidence of bat activity within the building.**	
	Roof	The stable roof is a simple double pitched design clad with slate, with simple triangular shaped ridge tiles. All slates are present and well-fitted and due to the tight-fitting design provide no significant crevices. All the ridge tiles remain well cemented in place and generate no significant crevices. A simple narrow timber facia runs along either side of the eaves	

		and is fixed directly to the upper coursework. The facia carrys the guttering, no significant crevices are associated with the facia, which remains well fixed in place and free of any significant decay. Both verges remain sealed with mortar. **There is no evidence of bat activity associated with the roof.**	

Birds

3.4. During the survey no bird nesting activity was present in association with barn and overall, the barn provides birds with no significant nesting opportunities.

Evaluation

Bats

3.5. During the scoping survey, no droppings, staining, feeding remains or actual bats were observed in any aspect of either the stable block or the tack room.

3.6. The building is located within a rural setting with adjacent habitats considered to provide with low-moderate foraging / commuting habitat, this is mainly due to the presence of extensive areas of intensively managed farmland.

3.7. The barn is small and simple, being built of uniform materials that include well-sealed brick walls (exterior and interior) and a slate roof that remains in excellent condition. The interior is well-lit and provides a heavily disturbed setting. The overall assessment is that the barn provides bats with no significant roosting suitability and is classified to provide bats with **negligible roosting suitability** for roosting bats.

4. Recommendations

4.1. The recommendations in the paragraphs below are provided to help ensure that wildlife and important ecological features are protected during the course of works. Recommendations also set out mitigation measures to minimise harm is cannot be avoided and provide compensation measures to allow the s to meet current legislative and planning policy objectives.

4.2. The Natural Environment and Rural Communities (NERC) Act (2006) states that a public authority must 'in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity; Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'.

4.3. Under the Government's National Planning Policy Framework (NPPF) opportunities to incorporate biodiversity in and around developments should be encouraged.

Species recommendations

Bats

4.4. Due to the unsuitable nature of the building to support bats and the lack of any bat related evidence the barn has been assessed as providing negligible suitability for roosting bats, so it is not considered necessary or beneficial to undertake any further survey work.

4.5. Bats are transient in nature and can sometimes utilise buildings on an occasional or temporary basis. It is therefore recommended that works to the building is undertaken using a precautionary approach with all tiles and roof panels being removed cautiously by hand. In the unlikely event that a bat is found, works

should stop immediately and further advice must should be sought from Crossman Associates or Natural England (telephone number 0300 0603900).

External lighting

4.6. The rural location which is generally unlit, provides potential habitat for foraging / commuting bats and other nocturnal wildlife, therefore the inappropriate use of external lighting has the potential to disturb and discourage the areas usage by bats and other nocturnal wildlife, leading to the potential severance of wildlife corridors, therefore any external lighting schemes planned for the site must not lead to light spill onto the garden of the property and those of adjacent gardens. Any new lighting schemes must consist of modern LED lights that provide directional and softer less harsh lighting; alternatively lights can be cowed or louvered.

4.7. A recommended exterior light unit is the Knightsbridge WALL 1LBK which is a wall mounted down lighter installed with a 3000K LED bulb which provides a beam angle of 50 degrees. Exterior lighting should be fitted with timers that prevent lights being on for more than 1 minute.

4.8. An information sheet on lighting is provided under Appendix III; information sheets.

Other species

Hedgehog

4.9. In the UK hedgehogs are listed on schedule 6 of the Wildlife and Countryside Act (1981) as Amended which makes it illegal to kill or capture wild hedgehogs. Hedgehogs are also listed as a species of 'principal importance' under the Natural Environmental and Rural Communities Act 2006, which is meant to confer a 'duty of responsibility' to public bodies.

4.10. Excavated holes and trenches on building sites have the potential to trap wildlife including hedgehogs leading to the potential suffering and death of the animal (s) particularly if they become filled with water.

4.11. If during the development excavated holes / trenches are likely to be left open, then timber builders' planks should be fitted as ramps to enable any wildlife including hedgehogs a means of escape.

Ecological enhancements

Birds

4.12. New nesting opportunities can be provided for the local bird population with a particular emphasis on house sparrows (which have suffered a historic decline) which can be easily fitted during the conversion works. Inexpensive sparrow nesting boxes can be integrally fitted to the converted building, thus making them very discreet. Two number are recommended.

4.13. Sparrow nest boxes are ideally fitted below eaves or on gable walls. In this situation the northern elevation eaves provides the most suitable location for the boxes to be fitted. Suitable models include the Schwegler 1SP and models by Vivara, which is suitable for surface mounting as well as integral mounting. This model is strong, durable, long lasting and available in brown or stone colour and is available from www.wildcare.co.uk telephone number 0333 9000 927. Further models are supplied by Habibat www.habibat.co.uk telephone number 01642 724626.

4.14. An information sheet on integral bird nesting boxes is included in Appendix III.

Landscape Recommendations

4.15. Any new landscape proposals should include new tree and shrub planting, including a range of native and non-native species. Where or if boundary screening is necessary this should be created using native hedgerows rather than

close board fencing allowing the free passage of wildlife, particularly hedgehogs. If close board fencing or masonry walls are necessary these should be accompanied by a hedge and a hole along the base of the fence or wall measuring approximately 150 mm x 150 mm to allow hedgehogs and other wildlife free passage in and out of the garden.

5. Limitations

5.1. This report records wildlife found during the survey and anecdotal evidence of sightings. It does not record any plants or animals that may appear at other times of the year and were therefore not evident at the time of visit.

5.2. This report represents a preliminary assessment only. Recommendations and conclusions are subject to change should further findings significantly differ from those collected from the survey efforts to date.

5.3. The advice contained in this report relate primarily to factual survey results and general guidance only. On all legal matters you are advised to take legal advice.

Appendix I – Site Figures



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● Site location

Client	LPC
Title	Location plan
Site	Barn @ 63 WEst Street
Figure	1
Date	02 June 2023
Scale	Not to scale

Appendix II – Site Photographs

Photographs 1- 3



Photograph 1:

Northern elevation



Photograph 2:

Western gable end



Photograph 3:

Southern elevation

Photographs 4 - 6



Photograph 4:

Eastern gable



Photograph 5:

Detail; showing the well-sealed roof verge; typical throughout



Photograph 6:

The entire interior is given over to a workshop and storage.

Photographs 7 - 8



Photograph 7:

The underside of the roof is lined with modern breathable roofing membrane.



Photograph 8:

The internal walls are all of well-pointed and painted brick

Appendix III– Information Sheets

Bat Habitat Suitably Criteria

Bat Roosting Suitability	Criteria	Survey requirement to prove likely absence
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further survey work required
Low	A building, structure or tree with one or more potential roosting sites that could be used by individual bats opportunistically; however, these possible roost sites do not provide enough space, shelter, protection and/or suitable surrounding habitat to be used by large numbers of bats and are unlikely to be suitable for maternity or hibernation roosts.	One activity survey
Medium	A building, structure or tree with one or more potential roost sites that could be used by bats due to the size, shelter, protection, conditions and surrounding habit, but is unlikely to support a roost of high conservation status.	Two activity surveys
High	A building, structure or tree 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 and surrounding habitat.	Three activity surveys

Survey requirements are taken from Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016), which is the recognised industry standard guidance used by local planning authorities and other statutory consultees.

Information sheet Artificial bird nesting boxes for Buildings: Swifts, house martins and house sparrows

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Habibat house sparrow nest box



Vivara woodstone sparrow nest box; suitable for both integral fitment or surface mounting

Ibstock Swift boxes are also suitable for house sparrows. Can be customised to suit any exterior finish.Site boxes under eaves, away from windows and direct sunlight.

Ibstock Box





Sparrow boxes should be grouped together and be at least 2 m of the ground. The boxes can be also be sited on gable walls. At least 3 per averaged size house.

Swifts boxes should be at least 5 m above the ground with an clear un-obstructed flight path.



Schwegler model 9b

Schwegler house martin box model 9 b double is a suitable box for house martins and can be used to encourage the uptakeof a building by this species. The boxes can be attached to the exterior walls in a sheltered position; ideally beneath the eaves. At least two sets should be placed on an averaged size house.

6. References

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