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PROTECTED SPECIES SURVEY

MULSFORD FARM

MALPAS, WREXHAM

NORTH WALES

FOR

Mr & Mrs Vickers

30th May 2023

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1. INTRODUCTION

A preliminary protected species survey (bats and nesting birds) was undertaken on the 21st May 2023. The survey was carried out by David Bennett, a licensed and experienced bat surveyor and ecologist (Natural Resource Wales S091412 & Natural England licenses) following a request by the current owners of the property. The survey was requested to satisfy planning requirements in respect of any protected species issues for Mulsford Farm, Malpas, Wrexham, North Wales. A planning consent is being sought to permit an extension to the side of the house which requires the removal of a small mono-pitch section with a store and toilet.

2. BAT BIOLOGY

There are now 17 species of bat (breeding) in the UK, many of which can be found within this part of Wales. Each bat gives birth just once a year, early in summer, the females tending to gather together in a communal roost to give birth and bring up their young. This is the time when they are most likely to use buildings. By the end of the summer the roosts are often vacated for other more suitable hibernation sites such as caves, mines or trees. Hibernation sites are usually characterised by stable temperatures with a high level of humidity. When temperatures fall and food becomes scarce they hibernate and live off body fat stored during the autumn. During mild winters bats can still often be seen on an evening flying and looking for food. Bats use a variety of different structures for the purposes of roosting, these can include mature trees, caves, mines, buildings (old and new), bridges and tunnels.

Bats will generally cause no harm to buildings or the people that occupy the buildings. They can be very discreet and are often not noticed because of their preference to occupy tiny spaces, cracks and crevices in roof voids. Some species such as the brown long eared bat will utilise open loft areas for flying and moving around in. They will roost on bare exposed timber beams, typically beneath the ridge beam. The droppings produced are harmless (largely made up of insect fragments) and do not carry any disease although a very large roost can sometimes produce large quantities of droppings.

3. LEGISLATION

All of our species of domestic bat are protected under both UK and European legislation. In the UK they are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 1994. The Habitats Directive has been superseded by The Conservation of Habitats and Species Regulations 2017.

To summarise it is illegal not only to intentionally kill, injure or take any bat but also too recklessly or intentionally damage, destroy or obstruct access to any place that a bat uses for shelter or protection, or to disturb a bat while it is occupying such a place. A roost is protected whether or not bats are present at the time. The reason for this is that bats tend to remain loyal to certain roost sites, often over a long period of time.

The presence of a species protected under European or UK legislation is a material consideration when a planning authority is considering a development proposal which, if carried out would be likely to result in disturbance or harm to the species or its habitat. The Environment (Wales) Act 2016 (Section 6) Biodiversity and resilience of ecosystems duty states that “A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions”.

4. AIMS

The aims of the survey were:

1. To describe any evidence of protected species in the study area.
2. To assess the impact of carrying out the proposed works.
3. To suggest mitigation measures as appropriate.

5. STUDY AREA

The site consists of the detached farmhouse and areas of garden with mown lawn and shrubs. The property is located within a rural location surrounded by open farmland with hedgerows and trees.

The house has been constructed in a traditional manner with rendered stone walls supporting a pitched and timber framed roof covered with slate.

The site plan is shown in Appendix 1 and the photos are shown in Appendix 2.

6. METHODOLOGY

The building was subjected to an internal and external survey on the 21st May 2023, the weather conditions were dry and clear. As much of the building as possible was searched (health and safety and access permitting) using an LED rechargeable lamp, a Seesnake endoscope (paying particular attention to the roof sections, ledges and any gaps or cavities). A search was made for bat droppings, staining, odour, old skeletons and feeding signs (such as wing casings etc). Other evidence such as bird's nests and other signs of nesting birds was also looked for both internally and externally.

7. RESULTS

No visible evidence of bats was found, no droppings were apparent and there were no signs of feeding, staining, marking etc. The upper rooms where the extension will join extend into the roof and there is no attic or loft space.

The slates on the main roof of the house are intact and secure with no holes, gaps or missing tiles, the ridge tiles are also intact and secure with no gaps or missing sections of mortar. The slates on the small mono-pitch section to be removed are also intact and secure with no gaps or slipped sections.

The gable area of the main house where the new extension will join (with the chimney) is all well sealed with intact mortar below the edge of the slates. The same applies to the mono-pitch section to be removed apart from one small cavity in the south-east corner which has been used by nesting birds as described below.

The inner space of the mono-pitch section to be removed is open but all of the roof areas and timbers are covered with dense cobwebs as shown in the photos below, the doors are also kept closed when not in use. The small end toilet section normally has the door closed so there is no internal access.

Overall, there does not appear to be any evidence of use by bats and nothing that would appear to cause any issues with the current proposals. The overall potential for the house/store section to support roosting bats is negligible due to a lack of access to any roof voids or any suitable roost space/dark area.

8. CONCLUSIONS, IMPACTS AND MITIGATION FOR BATS

No evidence suggesting bat use has been found during this survey and for the reasons suggested is thought unlikely and no further survey work is required. It therefore appears that there are no apparent issues relating to the proposed works in respect of bats at the present time. As outlined above it is often difficult to inspect every crevice or hidden section in a building (due to access or health and safety issues). In addition bats tend to be nomadic, which reduces the chances of finding bats on one or even several visits. This situation arises frequently when carrying out this type of survey. However, the survey has been completed to a good standard and it is not anticipated that any problems will occur. Carrying out the survey also puts in place demonstrable safeguards regarding the avoidance of illegal activities.

As a general note, most buildings offer potential for over-wintering and seasonal occupancy for individual bats. This use can be sporadic during the season and actual presence through emergence surveys cannot be fully confirmed. It is therefore recommended that the following precautionary recommendations should be undertaken as good working practice during the construction phase.

- **All slates should be carefully removed by hand to ensure that no roosting, torpid or hibernating bats are injured during the proposed works.**
- **Door and window frames should be removed with care to ensure that no roosting, torpid or hibernating bats are injured during the proposed works.**

- Structural members, lintel bearings, purlins or wall plates should be removed with care to ensure that no roosting, torpid or hibernating bats are injured during the proposed works.
- In the unlikely event that bats were found during the construction process then all work should cease and Natural Resource Wales Species Officer 0300 065 3000 and/or a licensed bat worker should be contacted for further advice.

The alterations to the building offer the opportunity to create some bat friendly features. *Pipistrelle sp.* and other crevice dwellers such as *Myotis* bats will readily take to new and/or converted buildings as long as suitable access points and features are retained or created. The following features should be included to improve and try to encourage bats to use any suitable areas of the building post construction.

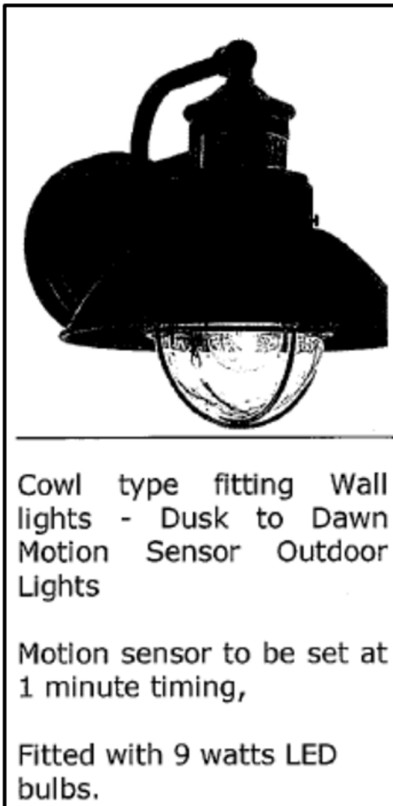
Pictures of the examples are shown in Appendix 3.

- A Vivara Pro build in woodstone bat tube will be built into to the new south-east facing elevation wall area as shown below.



- All external lighting for the house will be of a low luminance and directional towards the ground (lighting type example shown below). There will be no high-level illumination or halogen lighting which will discourage bats and there will be no external lighting on the south-west elevation near where the bat box will be located. All external lighting will include a motion sensor and a one-minute timer to avoid them being left on continually.

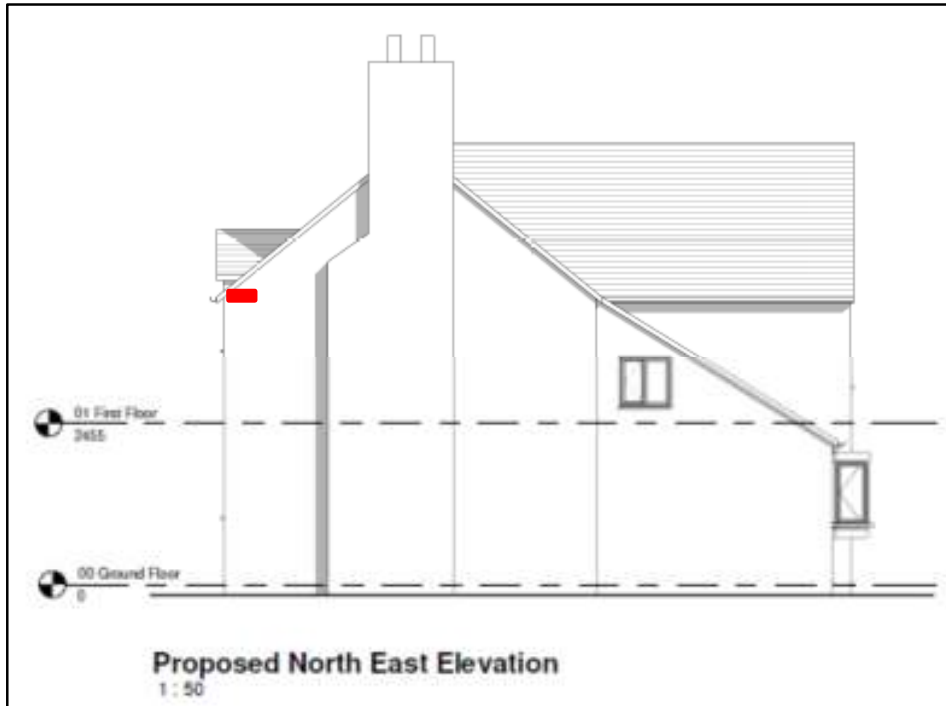
- A warm white spectrum (ideally <2700 Kelvin) should be adopted to reduce blue light component. Lights should feature peak wave lengths higher than 550nm to avoid the component of light most disturbing to bats. This will be achieved by using LED light bulbs.
- Any external lighting should be on a short timer with a cowling to prevent any up-lighting or light spread.



9. NESTING BIRDS

At the time of the survey there was no evidence of nesting birds anywhere in or around the structure of the house apart from one small cavity in the south-east corner of the mono-pitch store/toilet as shown in the photos below. This was stuffed with grass and other nest material, it appeared to have been used by house sparrow although none were seen at the time of the visit.

A Schwegler 1SP sparrow terrace nest box (or similar multi-hole box if this is unavailable) will be secured to the north-east elevation wall as shown below.



Demolition of the mono-pitch section with toilet and removal of any shrubs or other vegetation (to facilitate the extension) should only be carried out between October and February inclusive to avoid any disturbance to nesting birds.

All breeding birds are protected under Section 1(1) and 1(2) of the Wildlife and Countryside Act 1981, as amended. This makes it an offence to damage, disturb, or obstruct access to nests during the bird breeding season (generally March to August).

10. REFERENCES

BCT 2016 Good Practice Guidelines 2nd Edition 2016 BCT

Joint Nature Conservation Committee 2004 *Bat Workers Manual* JNCC Peterborough

Mitchell-Jones A J 2004 *Bat Mitigation Guidelines* English Nature Peterborough UK

Appendix 1 – Site plan



Appendix 2 – Site Photos

Front elevation



Side elevation



Rear elevation



Side and rear elevation



Gable areas are all well sealed



Gable where the extension will join is intact and well sealed



Gable of the section to be removed is sealed



Eaves of the house are all sealed



As above



Gable of the section to be removed is intact



Section to be removed on the left



Slates are all intact, door normally kept shut



Single small cavity on the south-east corner was full of old grass and nest material



Roof and gable areas are all well sealed



Ridge tiles are all secure and all the slates are intact with no gaps or missing sections



Slates and ridge tiles are all intact



Road elevation is all well sealed



Inside the mono-pitch store to be removed, dense cobwebs



Dense cobwebs throughout the mono-pitch store to be removed



As above



Small end toilet within the section to be removed, this has a door which is kept closed so there is no access



Appendix 3 – Mitigation

Vivara Pro build in woodstone bat tube



Schwegler 1SP sparrow terrace nest box

