
Protected Species Survey- Bats

Land at New Mill, Halghton

On behalf of

Bleazard and Galletta

Grid Ref: SJ 43072 41655

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INTRODUCTION

Background

Arborist and Ecological Services Ltd were commissioned to carry out a Preliminary Ecological Appraisal of land at New Mill, Bryn Lane, Halghton in June 2021. The location of the building is shown in Figure 1 below and has been highlighted with a red outline. The existing agricultural building will be converted into living space. The preliminary roost assessment indicated the building contained low roosting potential for bats. This therefore led to one activity survey being required, to ascertain the presence or absence of bats, using the categorisation of roosts provided by the Bat Conservation Trust.

A previous preliminary roost assessment was completed by Pearce Environmental in 2019, which found the building to contain no roosting potential for bats. However, following comments from Wrexham Council about the categorisation of the roost by Arborist & Ecological Services, a further survey was required for the purposes of the planning application. This was then completed on the 28th September 2022 to update the original report. The conditions of the second survey being accepted were;

- The survey must be carried out at dusk and the temperature must be above 10 degrees Celsius at sunset
- The consultant ecologist must provide evidence of the weather conditions, which should be dry and relatively wind free



Figure 1: Location of the Proposed Building for Conversion

PLANNING POLICY AND LEGISLATION

The following national and local planning policies and legislation affect ecology and provide context for the surveys conducted.

The Conservation of Habitats and Species Regulations (2017)- as listed in:

Schedule 2: European Protected Species of Animals

Under this law, it is illegal to;

- i. deliberately capture, injure or kill a bat;
- ii. Deliberately disturb in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young;
- iii. Deliberately damage or destroy a bat roost;
- iv. Possess, control, transport, sell, exchange or offer for sale/ exchange any live or dead bat or part thereof; and
- v. Intentionally or recklessly disturb bats whilst they are occupying a structure or place which is used for shelter or protection, or to obstruct access to this structure or place.

Furthermore, several UK bat species are listed as Priority Species on the UK BAP, highlighting them as species of conservation concern.

Schedule 5: European Protected Species of Plants

The Wildlife and Countryside Act (1981) as listed in:

Schedule 1: Birds Protected by Special Penalties at all

timesSchedule 5: Protected Animals

Schedule 8: Protected Plants

Countryside and Rights of Way Act

(2000).The protection of Badgers Act

1992

Natural Environment and Rural Communities Act 2006 (NERC 2006)

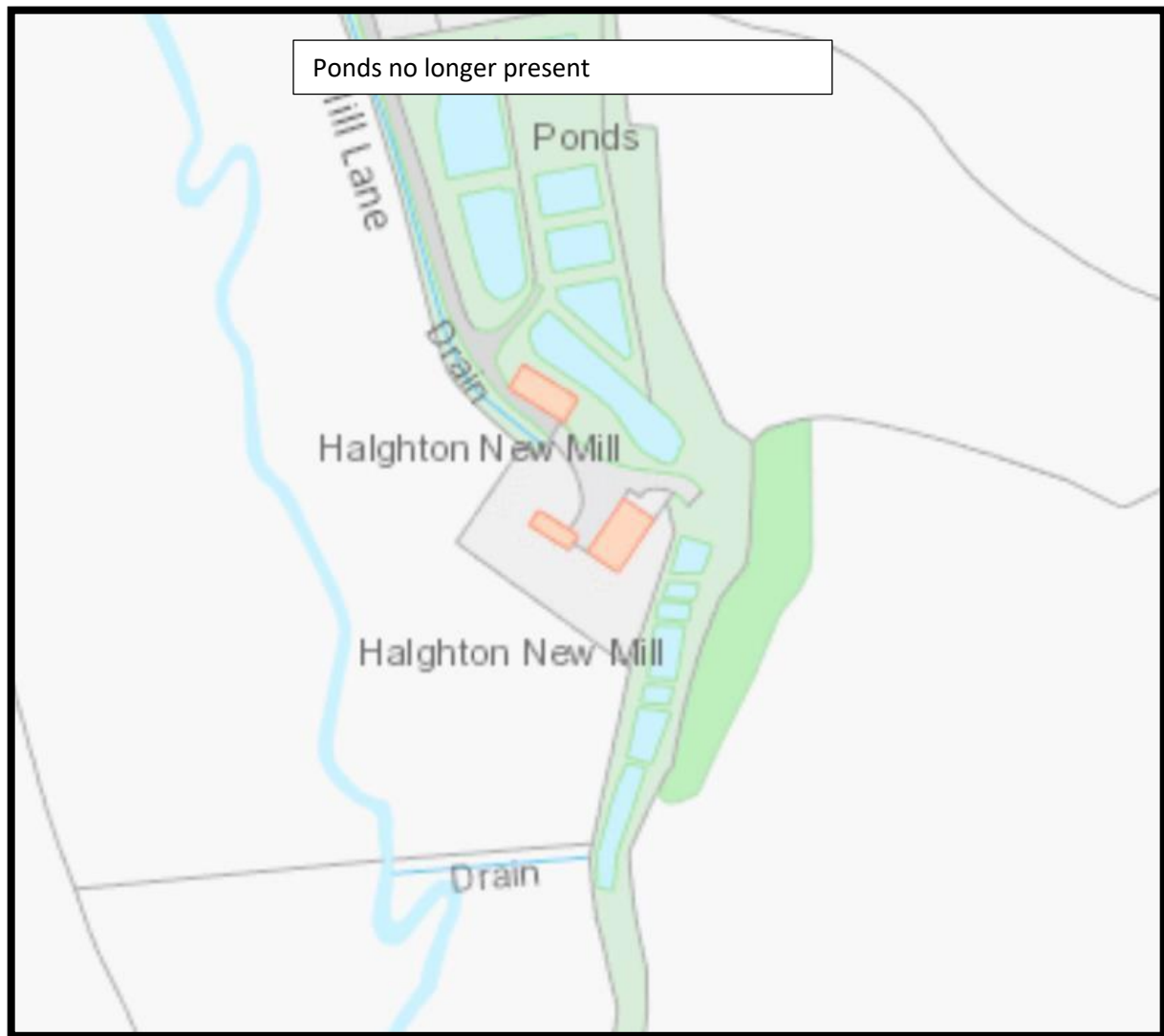


Figure 2: Location of New Mill, Halghton

Details of Proposed Work

The work will involve the conversion of the existing building, which was a former hatchery, into residential living accommodation. The building will have to be re-roofed and all the internal features need updating and floors making safe. The floor within the building is in very poor condition, and not all of the floor could be walked across, as the timbers are very decayed. The overall condition of the building is fair.

Scope of the survey

The Preliminary Roost Assessment found a small amount of droppings in the centre of the first floor of the building. There were no obvious feeding signs within the building. The number of droppings did not appear to increase in number between the PRA and the following activity survey. The droppings also didn't increase between 2021 and 2022. The surrounding landscape offers significant foraging opportunities for local bat populations, however the habitat the building offers is limited by the slate roof, which provides very few access opportunities for the species. There are open windows and ill fitting doors, however the roosting opportunities within the building is limited.

BUILDING DESCRIPTION

The habitats have been classified using the JNCC's Phase 1 Habitat Survey book (JNCC, 2010).

The only habitat which the proposals will affect is building 1. This is a two storey, red brick building, used as a former hatchery. The building is now used for general storage purposes. There is a timber framed, pitched roof, finished with slate tiles. There is a roof liner present beneath the slates and ridge tiles along the apex. There is potential access into the building via open windows, a number of small holes within the roof, and between the ill-fitting doors. There are few of gaps beneath the ridge tiles and there are only sections of mortar missing between the roof tiles and brick on the gable ends.

The overall condition of the building is fair, however there are a number of potential access points for both bats and birds. The section of the first floor on the south east gable end is in very poor condition, and wasn't accessible on the day of the survey as the timbers have decayed significantly.

There were a small number of bat droppings found within the central section of the first floor. These droppings appeared to be concentrated in one place, with very few scattered droppings around the rest of the building. There were no feeding signs found within the internal space, although the southern end of the first floor could not be thoroughly inspected due to safety.

Constraints and Disclaimers

There were no constraints to the survey being carried out successfully. The conditions on the day of the survey were warm and dry. The temperature during the survey was 24 degrees Celsius at the beginning of the survey and dropping to 15 degrees Celsius at the end of the evening. July is optimal for bat activity surveys. The second survey was conducted on the 28th September and the temperature at sunset was 12 degrees Celsius.

Whilst the surveyor has made every reasonable effort, Arborist and Ecological Services Ltd cannot guarantee that all protected species have been identified and survey results are definitive.

This report has been prepared by Arborist and Ecological Services Ltd for the sole use of the client and in connection with the development/ project described – this report cannot be relied upon by any third party without express written consent from both Arborist and Ecological Services Ltd and the client.

The findings of this report are valid for a maximum of one year from the survey date, after which time an update will be required, owing to potential changes in site conditions/ constraints.

This is a technical report and does not represent legal advice/ opinion.

SURVEY METHODOLOGY

VISUAL INSPECTION

One activity survey was completed on the 21st July, 2021, after the preliminary roost assessment on the 17th June 2021. The roost had low potential for roosting bats as there were very few droppings found within the building and the slated roof only had one visible access point between the slates and the liner. A further dusk activity survey was then done on the 28th September 2022 using the same surveyors and equipment. A weather logger was used for the second survey and the details of which have been provided in the appendices

Personnel and Equipment

Bat activity was registered on a Echometer Touch Pro detector, which was used by Zoe Adlington-Munro (ZA). Bat Licence Number: 2017-29048-CLS-CLS. ZA was positioned on the south west side of the building. Susan Worsfold used a Peersonic for recording. SW is a bat surveyor and secretary of the Shropshire Bat Group (SW) CLS 0895-2015-1256-CLS-CLS Survey Level 2. She also holds a Natural Resources Wales bat licence for surveying in Wales. SW was positioned on the north east side of the building. One Anabat express was positioned within the first floor of the building.

BAT ACTIVITY SURVEY

1st Dusk Emergence Survey

DATE	21.07.2021
SURVEY START TIME	21.00
SUNSET TIME	21.20
SURVEY FINISH	22.50
TEMPERATURE	24 degrees Celsius
WEATHER	Warm and dry

2nd Dusk Emergence Survey

DATE	28.09.2022
SURVEY START TIME	18.40
SUNSET TIME	18.55
SURVEY FINISH	20.30
TEMPERATURE AT SUNSET	12 degrees Celsius
WEATHER	Warm, dry and no wind

Breeding Birds

A search was made of all accessible parts of the building. There were a number of disused swallows nests and one robins nest, which was in use at the time of the survey. It is illegal to disturb or harm nesting birds in the bird nesting season (March to the end of August).

SURVEY RESULTS

Results of the Dusk Emergence Survey

30th June 2021

Species	Time	Number of calls	Description and Surveyor
<i>Noctule bat</i>	21.29- 21.44	11	<i>3 noctule individuals were seen foraging overhead and within the field to the west of the building. These were the first calls recorded by both surveyors during the evening and were recorded consistently through the whole survey. These were also visible during the entire evening.</i>
	21.47-22.39	119	
<i>Common pipistrelle</i>	21.47	2	<i>Two common pipistrelles were seen foraging to the west of the building, around the driveway to New Mill Cottage. These were only recorded by ZA, but they were present all evening.</i>
	22.06	1	
	22.07	1	
	22.16	1	
	22.20	1	
	22.23-22.27	14	
	22.31-22.38	7	
<i>Barbastelle</i>	22.39	1	<i>This individual bat call was recorded by ZA, but was not seen during the survey.</i>

There were three noctules and two common pipistrelle bats found foraging around the site during the evening. These were not recorded within the building and they were not seen leaving the building. They appeared to come from the south of the site. Initially the noctules were seen flying high in the sky, but came lower to forage within the neighbouring field. They continued to forage for the evening, until the last call at 22.39. The building was also searched internally during the evening, but no bats were seen flying around or roosting within the building.

38th September 2022

Species	Time	Number of calls	Description and Surveyor
<i>Noctule bat</i>	18.45 18.48 19.36 19.37-19.39 19.53 19.55 19.58 20.08 20.10 20.11 20.14 20.16	2 1 1 4 2 1 1 1 1 1 1 1 1	<i>1st noctule on site recorded by ZA. These were recorded all through the evening and were seen flying overhead and occasionally across the south side of the site by ZA. These were not recorded by SW as frequently.</i>
<i>Common pipistrelle</i>	18.48 19.26 19.58	2 1 3	<i>Individual pipistrelle seen foraging on site. Recorded by ZA and occasionally by SW around the site.</i>
<i>Daubenton's bat</i>	19.48	1	<i>One call recorded by ZA. Not seen on site, only recorded by the Echometer touch.</i>
<i>Soprano pipistrelle</i>	19.58 20.07-20.22	1 15	<i>Individual pipistrelles seen foraging on site for most of the evening. Recorded by ZA and occasionally by SW around the site.</i>

A number of species were recorded during the evening, however none were recorded on the internal Anabat express positioned within the 1st floor of the building. The building was inspected internally during the evening by ZA, but no individuals were seen flying inside the building. Neither surveyor saw any bats leaving the building during the course of the evening either. The species recorded on site were very similar to the first survey.

Evidence of the weather conditions for this survey has been supplied within the Appendices of the report. This includes data for temperature, humidity and dew point. This was recorded by a data logger. The wind speed records have also been provided from BBC Weather data, which was recorded at the time of the survey. A video of the wind conditions can be provided, if required.

EVALUATION OF RESULTS

BATS

The initial inspection of the building indicated the building provides low roosting potential for bats. The Bat Conservation Trust Good Practice Guidelines stipulate one activity survey is required for roosts of low potential. However, following concerns from Wrexham Council, a further survey was completed in September 2022 to confirm the absence of the species.

The results of the first activity survey indicate the building is currently not being used as a roost. There were no bats seen leaving the building, or flying in and out of the building during the survey. There was also no increase in the amount of droppings found within the building between the preliminary inspection and the activity survey, suggesting this could have been a foraging bat using the building for sheltered foraging opportunities. There were also no increase in droppings from the activity survey in 2021 to 2022. The results from the second activity survey also indicated the same outcome as the first activity survey, as no bat calls were recorded within the building and no bats were seen emerging from the building by either surveyor. The conversion of the building is not deemed to have any impact on local bat populations. As there was a small concentration of droppings within the building, which could indicate some sheltered foraging opportunities for the species, a method statement for the removal of the roof has been recommended and provided within this report. This will ensure no harm to any individual bat, in the unlikely event that one is encountered during the construction work.

BIRDS

There were no breeding birds found to be nesting within the building, or associated with the external features. There were a number of swallows nests which were not in use during the surveys, however theoretically these could be used in future years by the species. There was one robin's nest on the ground floor of the building and this was in use at the time of the survey. The conversion of the building would remove potential internal bird nesting habitat.

IMPACT OF DEVELOPMENT IN THE ABSENCE OF MITIGATION

BATS

Based on the findings of the two activity surveys and the Preliminary Ecological Appraisal, the likelihood of an offense to bats being caused as a result of this planning application is highly unlikely. However, because there is a small amount of roosting potential between the roof slates and roof liner, there could potentially be limited opportunities for individual bats. In order to ensure no harm to individual bats, a Method Statement/ Reasonable Avoidance Measures have been recommended for the removal of the roof. These have been detailed later in this report.

BIRDS

The conversion of the building will remove a small amount of nesting habitat for birds. It is illegal to disturb or harm nesting birds during the bird nesting season (March to the end of August). To avoid an offense to birds, it is recommended that the conversion of the building should be done outside the bird nesting season, and the building sealed prior to the beginning of the nesting season, to avoid access into the building.

MITIGATION, METHOD STATEMENT AND REASONABLE AVOIDANCE MEASURES

Method Statement

To ensure no bats are harmed during the removal of the roof, and to ensure there are no adverse effects on bat roosts or on local bat populations, the method statement contains the following elements:

- Provision of bat and bird boxes on the site;
- Toolbox talk to contractors;
- Timing of works;
- Working methods to ensure minimal disturbance to possible bats, and avoidance of killing or causing accidental injury to bats;
- Methods to be followed in the event of a bat being discovered during works.

Provision of Bat and Bird Boxes

Prior to commencement of works, one Schwegler 1FFH bat box (or similar), will be installed on the existing building. This should be erected on the north side of the building, as this is facing the field which the bats utilise for foraging and commuting.

This will be permanent and will be installed at the height of at least 3m. One small Schwegler nest box and four swallow cups are recommended for installation on the south side of the building. The swallow cups should be installed under the weather boards, to give shelter to the cup. Examples of both the bat box and bird nesting boxes are shown in Appendix 2 in the Appendices.

Timings of Works

The removal of the roof should ideally be done in Spring or Autumn, however, given the low roosting potential of the building and the absence of bats during the activity surveys, this is not deemed critical, providing these working methods are followed.

Tool Box Talk for Contractors

All contractors used for the removal of the roof will be given instructions on how to identify bats and what to do if any bat is found to be roosting beneath any roof or ridge tile and who to contact in case of emergency. The roof will have to be removed by hand, very carefully. If a bat is found during the removal of the roof, all work will cease and advice will be sought from the ECW and Natural Resources Wales. The last removed item will be very carefully replaced in the original position and the ECW will be informed of the item. Providing the contractors undergo the toolbox talk by the ECW, direct supervision of the roof stripping will not be required, given the low roosting potential and the absence of bats during the activity survey. Once the tiles have been removed, no direct supervision will be required.

In the unlikely event bats are encountered during the roof stripping, a European Protected Species (EPS) licence from Natural Resources Wales may be required. The ECW will be able to provide details for this.

Working Methods and Reasonable Avoidance Measures

- The details of the licensed ecologist will be provided prior to the commencement of works.
- Bat and bird boxes will be erected prior to the removal of the roof.
- The roof will be removed by hand, taking care and caution when removing the roof and ridge tiles.
- The toolbox talk will be done prior to the work commencing. This will be done by the ECW and will cover the legal protection afforded to bats and their habitats, how to identify a bat and what to do in case of finding one.
- A copy of this method statement will be provided to the contractors before the roof removal. A copy will remain available on site, at all times.
- Soft demolition of areas containing suitable bat roost features (e.g. loose wooden fascia's boards and beneath roof tiles) will be undertaken; the contractor will carefully remove these features in a controlled and sensitive manner, inspecting as they work. Adopting soft demolition, roof ties are removed commencing at the ridge tiles and working systematically down towards the eaves;
- If a bat is discovered or suspected at any point during the demolition or construction works, all works must cease immediately and ecologist informed who will advise on the most appropriate course of action, including obtaining a licence if required. Demolition contractors are explicitly forbidden from handling bats.
- Photographs will be taken by the ECW of the installed bird boxes and roost boxes. Photographs will also be taken during the removal of the roof by the site manager.

Legislation Protecting Bats and Birds

All wild birds, their nests and eggs are protected under Part 1 (Section 1) of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- i. Intentionally kill, injure or take any wild bird;
- ii. Take, damage or destroy the nest of any wild bird while it is in use or being built;
- iii. Take, damage or destroy the egg of any wild bird; and
- iv. To have in one's possession, or control, any wild bird (dead or alive) or egg or any part of a wild bird or egg

In addition, further legal protection is afforded to those wild bird species listed on Schedule 1, which prohibits the intentional or reckless disturbance to a bird while it is nest building, or at a nest containing eggs or young, or to recklessly disturb the dependent young of such a bird.

The Conservation of Habitats and Species Regulations (2017)

All species of British bat are listed as a European Protected Species (EPS) on Schedule 2 of the Conservation Regulations (Annex IV (a) to the Habitats Directive) and are afforded full protection under both Regulation 43 of the Conservation of Habitats and Species Regulations (2017) and the Wildlife and Countryside Act 1981 (as amended).

It is therefore an offence to:

- i. Deliberately capture, injure or kill a bat;
- ii. Deliberately disturb in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young;
- iii. Deliberately damage or destroy a bat roost;
- iv. Possess, control, transport, sell, exchange or offer for sale/ exchange any live or dead bat or part thereof; and
- v. Intentionally or recklessly disturb bats whilst they are occupying a structure or place which is used for shelter or protection, or to obstruct access to this structure or place. Furthermore, several UK bat species are listed as Priority Species on the UK BAP, highlighting them as species

CONCLUSION

This report details the findings of the activity survey carried out on the 21st July 2021 and the activity survey on the 28th September 2022. The dusk activity survey conducted in July found there were no roosting bats within the building. The conditions of the survey were optimal for the species and many species were recorded around the site during the survey. Noctules, common pipistrelles, and one barbastelle were recorded during the evening by both surveyors, however, none were recorded or seen within or leaving the building. Three noctule bats were seen foraging all evening in the field to the west of the building and two common pipistrelles foraged around the south of the building, all evening. On entering the building, ZA did not see or record any bats. There were no new bat droppings or feeding signs found within the building during the visual inspection compared with the preliminary roost assessment conducted the month before. There was no increase in droppings from the preliminary roost assessment to the second activity survey, over a year later. No bats were recorded inside the building during the survey and no bats were seen emerging from the building by either of the surveyors. The same species were recorded on both activity survey foraging in the surrounding landscape.

As the roosting potential of the building was deemed to be 'low' and the two activity surveys indicated no roosting bats utilising the building, no impact to bats is predicted as a result of the planning application. However, to ensure no individual bats are harmed during the conversion, a Method Statement and Reasonable Avoidance Measures have been recommended for the removal of the slates. This details the timing of works, working methods contractors need to follow, legislation affecting bats and what to do in case of finding a bat. Providing these working methods are followed, an offense to the species is highly unlikely. The conversion of the building should also be timed to avoid the bird nesting season (March to the end of August), so October would be optimal for both bats and nesting birds.

As part of the mitigation for breeding birds and enhancement of the site for bats, 1 type 1FFH Schwegler (or similar) bat box and 4 swallow cups and 1 small nest box have been recommended for installation of the converted building. The bat box will need installing prior to the conversion work commencing.

APPENDICES

APPENDIX 1: PHOTOGRAPHS FROM 2021



View from the south west side of the building.



The ground floor of the building. No evidence of bats found within the ground floor



The roof liner is present beneath the roof slates within the building



The roof slates are in fairly good condition and there are few roosting opportunities beneath the slates.



The ground floor of the building has no evidence of bats and there is very little access available into the ground floor for the species.

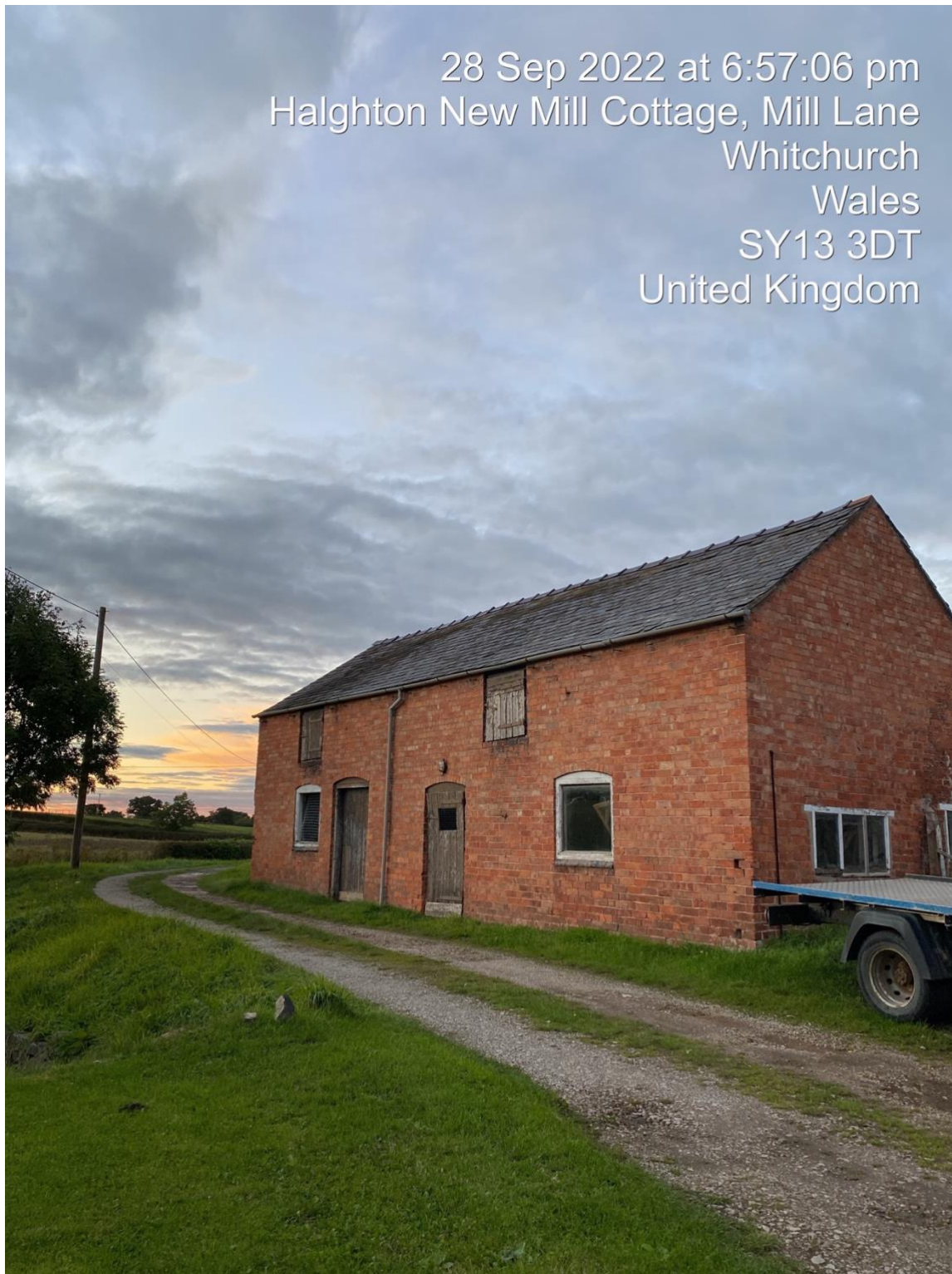


Access into the first floor for bats is possible via ill fitting windows, however there was no new evidence of bats from the preliminary roost assessment to the activity survey.



There were scattered droppings in the middle of the first floor, but no feeding signs found. The numbers of droppings did not increase between the PRA and the activity survey.

PHOTOGRAPHS FROM ACTIVITY SUREVY IN 2022- time, date and address stamped at time of survey



28 Sep 2022 at 6:48:38 pm



Appendix 2: Data Logger for Temperature and Humidity 28th September 2022



Appendix 3: Wind Speed and Temperature from BBC Weather at Time of Survey for 28th September 2022



Appendix 2: Bat Boxes and Nest Boxes



BEAUMARIS WOODSTONE BAT BOX MIDI



IFFH Universal Bat Box



No.10 Schwegler Swallow Nest



1B Schwegler Nest Box

Appendix 4: Roost Classification According to the Bat Conservation Trust 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.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions^a 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 or hibernation^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.^c	Habitat that could be used by small numbers of commuting bats 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 or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are 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 commuting 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 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 ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats 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.

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.^b

^a Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

^b Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

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