Whitcher Wildlife Ltd. Ecological Consultants.



GREEN BANK, STATION ROAD, WHITWELL.

OS REF: SK 53201 – 76390.

BAT SURVEY.

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1. INTRODUCTION.

- 1.1. Planning permission is being applied for to develop three existing out buildings at Green Bank, Station Road, Whitwell. The works will also include renovation works to the existing house building.
- 1.2. Whitcher Wildlife Ltd was therefore commissioned to carry out a daytime bat survey of the site to establish whether there are any issues that may affect the proposed works. This survey was carried out on 21st May 2021 and identified bat roost potential in an outbuilding, Building 2, and a dusk emergence survey was recommended.
- 1.3. Whitcher Wildlife Ltd was therefore commissioned to carry out a bat dusk emergence survey. This survey was carried out on 21st June 2021 and this report outlines the findings of both surveys and makes appropriate recommendations.
- 1.4. Appendix I and II of this report provides additional information on bats and nesting birds and the protection afforded to them and is designed to assist the reader in understanding the contents of this report.

2. SURVEY METHODOLOGY.

- 2.1. The buildings were thoroughly checked internally and externally for potential bat roosting sites by looking for the following signs: -
 - * Holes, cracks or crevices.
 - * Bat droppings.
 - * Prey remains.
 - * Staining on external walls.
- 2.2. Unless otherwise stated, all lofts were accessed and inspected using a high-powered torch and where necessary an endoscope.
- 2.3. A thorough external inspection was carried out from ground level for any gaps or openings in the roof and ridge tiles, behind soffits and fascia's and in the walls of the structure for suitable roost access points and field signs to indicate possible use by bats.
- 2.4. All window cills, walls and the ground around the structure were checked for signs of bat droppings or staining to indicate possible use by bats. Where necessary, ladders were utilised to gain access within the limits of health and safety. Any access constraints encountered are outlined within the following report.
- 2.5. All survey work was carried out in line with Collins, J. (ed.) (2016) *Bat Surveys* for Professional Ecologists: Good Practice Guidelines (3rd edition), with an assessment of the buildings suitability for roosting bats made in accordance with these guidelines.
- 2.6. The subsequent dusk emergence survey was also conducted in accordance with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*. It was conducted by a sufficient number of surveyors to cover all areas of roosting potential, in suitable weather conditions from fifteen minutes before sunset to at least an hour and half after.
- 2.7. All surveyors were equipped with Batbox Duet bat detectors, or similar. The use of static recording devices such as Anabat SD2's and video cameras with infrared lights were also utilised were appropriate.

- 2.8. These surveys were carried out by a Stevan Roebuck and Jenny Roebuck.
- 2.8.1. Since 2011. Stevan has had experience carrying out great crested newt and bat surveys. Since 2013 Stevan has had experience in a professional capacity as a Wildlife Consultant carrying out ecology surveys, badger, great crested newt and bat surveys. Stevan holds a Natural England Survey License for Great Crested Newts and Bats and is currently working towards gaining further Natural England, NRW and SNH survey licences. Stevan is also a Qualifying Member of CIEEM.
- 2.8.2. Since 2001 Jenny has had experience in a professional capacity as a Wildlife Consultant carrying out Ecology Surveys and Phase 1 Habitat surveys. Jenny holds Natural England Survey Licences in respect of bats, great crested newts, crayfish and barn owls, NRW and SNH Survey Licences in respect of bats and great crested newts. She has also successfully completed a number of courses run by the Chartered Institute of Ecology and Environmental Management (CIEEM), the Bat Conservation Trust (BCT) and the Field Studies Council (FSC) in the relative protected species, plant species and in carrying out Phase 1 Habitat Surveys. As a full member of CIEEM she is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership.

3. SURVEY RESULTS.

3.1. Data Search Results.

- 3.1.1. A desktop data search was requested from Derbyshire Bat Group for records of bats and bat roosts within 2km of the survey area.
- 3.1.2. There are numerous records of various species of bat within 2km of the survey area, although there are no records specific to the survey area.
- 3.1.3. The nearest record lies 450m from the survey area and is a record of a grounded Common Pipistrelle bat recorded in 2013.
- 3.1.4. The nearest roost lies over 1.5km from the survey area.

3.2. Site Description.

3.2.1. The surveyed area consists of the house at Green Bank, Station Road, Whitwell and the associated outbuildings. The aerial photograph below shows the surveyed area and the buildings, that have been numbered 1 to 5 for the purpose of this report.



3.2.2. The aerial photograph below shows the location of the surveyed buildings and the wider surrounding area.



3.2.3. The surveyed buildings lie within mature, tended, wooded gardens that are surrounded by residential areas, playing fields and scattered tree lines.

3.3. Daytime Survey Results.

3.3.1. Below is a description of each of the surveyed buildings.

3.3.2. Building **1.**

3.3.2.1. Building 1 is the main house of Green Bank and is a three story building constructed with solid brick walls with stone work on each corner of the house and around the ground floor doors and windows on the southern elevation. The walls are in a good state of repair with no gaps, missing bricks, stones or pointing. All the windows and doors are sealed and well fitted with no gaps to the inside. The photographs below show Building 1.



3.3.2.2. The roof of Building 1 is pitched and covered with slate with a dormer window on the southern elevation. The roof is in a good state of repair with all slates in place and all ridge tiles fitted and well pointed. There are timber soffit and fascia boards around the eaves that are well fitted on the eastern and western gable ends. However, there are gaps behind the soffits on the northern and southern elevations. The photograph below shows some of the gaps behind the soffit boards.



- 3.3.2.3. Inside the house is still occupied. There are two loft spaces to the house. Loft one spans the length of the house and is supported by a simple timber beam frame and has a plastic membrane liner that is in a good condition. However, light could be seen shining in the loft around the eaves.
- 3.3.2.4. Loft two is a small loft that is used to house the water tank and has a timber floor and insulation. The loft is lined with a plastic membrane liner that is in a good state of repair. The photographs below show both loft spaces.



3.3.2.5. No bats or bat field signs such as droppings, feeding remains or staining were identified internally or externally around Building 1 during this survey. However, Building 1 has been assessed to provide **Low** potential for roosting bats in the gaps behind the soffit boards on the northern and southern elevations of the building.

3.3.3. Building 2

3.3.3.1. Building 2 lies to the north of Building 1. Building 2 comprises five individual rooms. One is a garage, three are small outbuildings and one is a shed/garage that are all separated by brick walls. All the rooms are single story and used for storage. The photographs below show Building 2.



3.3.3.2. Three of the rooms are open to the roof and two have under slung timber and plaster board ceilings with small loft spaces, although the loft spaces could not be accessed during this survey. Two of the rooms have a plastic membrane liner and three are open to the roof. The photographs below show two of the compartments.



- 3.3.3.3. The walls of Building 2 are generally in a good state of repair although there are gaps around some of the windows and there are gaps around some of the door frames with the western garage door permanently open.
- 3.3.3.4. The roof of Building 2 has three pitches of varying heights that run east to west and are covered with slate. Some of the slates have slipped and there is a hole in the roof at the eastern end. There are also gaps beneath the ridge tiles of the central pitch. The northern room has a flat roof covered with corrugated plastic sheets.
- 3.3.3.5. No bats or bat field signs were identified internally or externally within any of the rooms of Building 2 during this survey. However, Building 2 provides **Low** roosting bat potential in the slipped tiles of the roof and beneath the gaps in the ridge tiles of the central pitch.

3.3.4. Building 3.

3.3.4.1. Building 3 is a car port that lies between Building 2 and Building 4 and consists of a corrugated plastic roof that is supported by timber beams and is open on the southern elevation and has a brick wall at the northern elevation. The photograph below shows the car port.



3.3.4.2. No bats or bat field signs or any roosting bat potential was identified internally or externally around Building 3 during this survey. Building 3 provides **no** bat roost potential.

3.3.5. Building 4.

3.3.5.1. Building 4 is a storage shed located to the west of Building 3 and is a single story building constructed with pre-fabricated walls to the eastern and western elevations, brick and breeze block walls to the northern elevation and steel walls with external timber cladding on the southern elevation and has two steel doors. The photograph below shows the southern elevation of Building 4.



- 3.3.5.2. Internally the shed is used for storage and is open to the roof that has no liner and is supported by a steel frame.
- 3.3.5.3. The roof of the building is slightly sloping and covered with metal corrugated sheets, that are well fitted.
- 3.3.5.4. No bats or bat field signs or any roosting bat potential was identified internally or externally around Building 4 during this survey. Building 4 provides **no** bat roost potential.

3.3.6. Building 5.

3.3.6.1. Building 5 is located to the west of Building 4 and is a timber shed used for storage that is generally in a good state of repair with all windows and doors well fitted with mesh over the windows. Internally, Building 5 is open to the roof, which is

supported by a timber frame and has a plastic membrane liner. The photograph below shows Building 5 externally and internally.



- 3.3.6.2. The roof of Building 5 is pitched and covered with slate and is in a good state of repair, although there is dense ivy growing on the roof.
- 3.3.6.3. No bats or bat field signs or any roosting bat potential was identified internally or externally around Building 5 during this survey. Building 5 provides **no** bat roost potential.
- 3.3.7. During this survey, all the buildings were assessed as providing some level of nesting bird potential during the nesting bird season, which extends between March and September each year. No active nests were visually identified during this survey, although chicks could be heard calling inside the northern room of Building 2 indicating that a nest is present.

3.4. Dusk Emergence Survey Results.

- 3.4.1. The dusk emergence survey of Building 2 was carried out by two surveyors on the evening of 21st June 2021. Both surveyors hold a current Natural England class licence for surveying bats.
- 3.4.2. The evening was cloudy and still. There was a temperature of 13.5°C at 21:30, which dropped to 11°C at the end of the survey. The survey continued until 22:55 and sunset was at 21:36.

3.4.3. The two surveyors were positioned around Building 2 in order to be able to view all aspects of the building simultaneously. Each surveyor was equipped with a Batbox Duet detector and a two-way radio for communications. In addition, two static Anabat recorders were deployed to record bat activity for subsequent computer analysis using Analook software. The positions of the surveyors (S) and the Anabat recorders (A) were as shown below.



3.4.4. The following are the observations of the surveyors and the recordings of the Anabat detectors: -

3.4.4.1. Surveyor 1.

- 21:57 Common Pipistrelle heard foraging briefly, not seen.
- 21:58 Common Pipistrelle flew south to north over building then foraged to the north.
- 22:05 Common Pipistrelle foraging to the north.
- 22:21 Common Pipistrelle heard pass in the distance, not seen.
- 22:34 Common Pipistrelle flew north to south.
- 22:36 Common Pipistrelle heard in the distance, not seen.
- 22:38 Common Pipistrelle flew northwest to southeast over building.
- 22:39 Common Pipistrelle flew northwest to southeast.

Anabat 18 with Surveyor 1 recorded two Common Pipistrelle calls at 22:39.

3.4.4.2. Surveyor 2.

- 21:58 Common Pipistrelle passed from south to north.
- 22:02 Common Pipistrelle passed from south to north.
- 22:03 Common Pipistrelle heard foraging to the north, then flew south.
- 22:21 Common Pipistrelle passed from north to south.
- 22:35 Common Pipistrelle passed from north to south.
- 22:39 Common Pipistrelle heard not seen to the east.

Anabat 14 with Surveyor 2 recorded four Common Pipistrelle calls between 21:58 and 22:35.

- 3.4.5. No bats emerged from the building during the survey. Low levels of Common Pipistrelle activity were recorded with bats passing the site and very little foraging recorded.
- 3.4.6. No other species of bat was recorded during the survey.

4. EVALUATION OF FINDINGS.

- 4.1. During the daytime survey Building 1 was assessed as providing **low** bat roost potential around the gaps behind the soffit and fascia boards on the eastern and western elevations of the building. Therefore, if any works will affect the areas around the soffit and fascia boards, there may be an impact on roosting bats if they are present.
- 4.2. Building 2 was assessed to provide **low** potential for roosting bats beneath the slipped tiles and gaps beneath the ridge tiles of the roof. Therefore, the proposed works to Building 2 may have an impact on roosting bats if they are present.
- 4.3. No bat field signs, or roosting bat potential was identified internally or externally around Buildings 3, 4 or 5 during this survey. Therefore, the proposed works to these buildings will have no impact on roosting bats.
- 4.4. All the surveyed buildings provide some potential for nesting birds during the nesting bird season, which extends between March and September each year. During this survey, a potential bird's nest was identified within Building 2 in the northern room. No nest was visually identified, although young chicks could be heard calling, indicating that an active nest is present. Therefore, the proposed works may have a high impact on nesting birds if they are carried out during the nesting season.
- 4.5. During the dusk emergence survey no bats emerged from Building 2. Low levels of Common Pipistrelle activity were recorded with bats passing the site and occasional foraging to the north. Therefore, works to Building 2 will have no impact on roosting bats.

5. RECOMMENDATIONS.

- 5.1. No bat roost was identified in the outbuildings during the surveys. Therefore, there is no requirement for any further surveys or for a Natural England licence in connection with the proposed works.
- 5.2. Nevertheless, individual bats can seek temporary shelter almost anywhere and therefore it is recommended that conversion of the existing buildings is undertaken with due care. In the unlikely event a bat is found, the bat should be covered and protected, work should cease at that location and Whitcher Wildlife Ltd should be contacted for further advice.
- 5.3. If works to Building 1 change and will have any impact on the soffits and fascia boards of the building it is recommended that a further bat dusk emergence survey is carried out on Building 1. If no work will be carried out on the soffit and fascia boards of Building 1, no further surveys of Building 1 will be required.
- 5.4. It is recommended that no work takes place on any of the building during the nesting bird season, which extends between March and September each year. If any works to the buildings needs to be carried out during the nesting season, a thorough nesting bird survey must be carried out by a suitably experienced person no more than five days before the works commence.
- 5.5. If an active nest is identified during that survey, the nest plus a stand-off area around the nest must remain undisturbed until the young have fledged the nest. The size of the stand-off area will depend on the location of the nest and the proposed works and should be agreed with the ecologist.
- 5.6. It is recommended that as part of the proposed works an integrated bat box is included in the new building to enhance the habitat for roosting bats.

Prepared by:	
Stevan Roebuck	Date: 11 th June 2021.
Revised by:	
Jenny Whitcher Roebuck MCIEEM.	Date: 22 nd June 2021.

Checked by:	
Derek Whitcher. BSc, MCIEEM,MCMI.	Date: 22 nd June 2021.

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Appendix I. BAT INFORMATION.

Ecology

There are currently 18 species of bat residing in Britain, 17 of which of which are known to breed here. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to habitat change and shortage of food, caused by pesticides, as insects are their sole diet.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man-made structures and will readily use these to roost and to rear their young.

Surveys

During walkover surveys, bat roosts can be identified by looking for:

- Suitable holes, cracks and crevices within any building, tree or other structure.
- Bat droppings along walls, window cills, or on the ground.
- Prey remains, such as insect wings.

Further investigations can be made using endoscopes, by carrying out aerial inspections of trees or by conducting bat activity surveys during dusk and dawn over summer months.

Legislation

Bats are protected under Appendix II and III of the Bern Convention (1982), Schedule 5 and 6 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive (some species under Annex II), Annex II of the Conservation of Habitats and Species Regulations (2010) and EUROBATS agreement. Numerous species are

also listed under section 41 of the Natural Environment and Rural Communities Act (2006) making them species of principal importance.

All bats and their roosts are therefore protected in the UK. This makes it an offence to kill, injure or take any bat, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

The UK has designated maternity and hibernacula areas as Special Areas of Conservation (SAC's) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number bat species and the habitats which support them.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

Appendix II. NESTING BIRD INFORMATION.

Ecology

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub, but others are ground nesting or prefer man- made structures or buildings.

Surveys

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

Legislation

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after "intentionally" the words "or recklessly".

Toolbox Talk: Bats



18 species of bat have been recorded in Britain, 17 of which are known to breed here.

Identification.

Some species can be extremely difficult to identify in the hand and even more so in flight.

Species such as the Brown Long Eared bat pictured above can be more easily identified in the hand. Whereas, the Common Pipistrelle and Soprano Pipistrelle are more difficult to identify.



Bats are more easily identified by field signs such as droppings or feeding remains.





Habitat.

Bats are highly specialised creatures and require a relatively narrow range of suitable conditions in order to sustain a viable population. Bats require an abundant supply of flying insect food in places where they can easily be caught and they need safe and reliable roosting sites, particularly during breeding and hibernation.

Bats are heavily dependent on buildings and trees for their roost sites and therefore extremely susceptible to disturbance from human activities. Development schemes can also isolate bat populations and sever roost sites from favoured feeding areas by removing hedgerows or other features used as commuting routes.

Bats are susceptible to disturbance and have been known to abandon roost sites after instances of disturbance. The effects of disturbance are more pronounced at different times of year. Serious disturbance during breeding can result in the breeding females being killed or the abandonment and subsequent starvation of dependant young. Repeated disturbance during winter hibernation can result in the death of adult animals from starvation.

The level of protection afforded to bats in the UK and European legislation reflects the fact that it is now generally accepted that bats have declined substantially, maybe by as much as 60%, over recent years. Most species are declining and vulnerable with all species being protected.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and occasionally the roofs of buildings.

Certain species, particularly Pipistrelle, can quickly adapt to manmade structures and will readily use these to roost and to rear their young.

Legislation.

Bats and their roosts are fully protected at all times (whether the bats are currently present or not). This protection comes from the Wildlife & Countryside Act 1981 (updated by the Countryside Rights of Way Act 2000) and the Habitats Regulations 1994. Under this legislation it is an offence to intentionally or recklessly kill, injure, capture or disturb bats or to damage, destroy or obstruct access to any place used by bats for shelter or protection.

Under the Habitats Regulations, where bats may be affected by development proposals, a licence is required from Natural England. Natural England's published guidelines on the licence procedure indicate that if, on the basis of survey information and specialist knowledge of the species concerned, the proposed activity is reasonably likely to result in an offence then a licence is required. If, on the other hand the proposed activity is reasonably unlikely to result in an offence, then a licence is not required.

If bats or bat field signs are identified during works, stop all works and contact Whitcher Wildlife Ltd directly on 01226 753271 or at info@whitcher-wildlife.co.uk

Toolbox Talk: Nesting Birds

The bird nesting season varies according to the weather each year but generally commences in March, peaks during May and June and continues until September.

A bird's nest is the place in which a bird lays and icubates its eggs. Some species build a nest structure while other species lay their eggs directly onto the ground or on a rocky ledge. Nests can be constructed from a variety of materials and are usually lined with feathers or fur.

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Identification.

Some birds construct nests in an area where it can be seen while others construct nests that are hidden from view and are more difficult to identify.

The photograph to the right shows a Moorhen nest which can easily be seen.





Nests can also be identified from field signs without the necessity to see the nest itself. The presence of a nest can be identified by seeing the adult birds leaving and returning to the nest regularly with food to feed the chicks.

The photograph to the left shows a Wren's nest in overhanging tree roots, which is almost impossible to see.

Care should be taken at any time during the nesting season particularly when regular bird activity is seen, or birds can be heard calling.



Habitat.

Birds regularly nest in a variety of places with some species nesting in buildings or vegetation and others nesting on the ground or on water. However, birds may nest in any habitat or situation if they identify a suitable nest site.







Legislation.

Part 1. -(1) of the Wildlife and Countryside Act 1981 states that:

If any person intentionally or recklessly:

- · Kills, injures or takes any wild bird.
- Takes, damages or destroys the nest of any wild bird while that nest is in use or being built, or
- Takes or destroys an egg of any wild bird.

He shall be guilty of an offence.

Part 1. -(5) of the Act states that:

If any person intentionally or recklessly:

- Disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young, or
- Disturbs young of such a bird.

He shall be guilty of an offence and liable to a special penalty.

If a nest or potential nesting activity is identified during works, stop all works and contact Whitcher Wildlife Ltd directly on 01226 753271 or at info@whitcher-wildlife.co.uk