



WATH ROAD, ELSECAR.

OS REF: SE 39012 00587.

BAT SURVEY.

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Date: 5th September 2020.

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1. INTRODUCTION.

1.1. There are plans to demolish the existing buildings on the site off Wath Road, Elsecar to replace them with a new dwelling. A bat survey report is required in support of that planning application.

1.2. Whitcher Wildlife Ltd has therefore been commissioned to carry out a bat survey of the site to establish whether there are any issues that may affect the proposed works.

1.3. The initial survey was carried out on 10th January 2020 and highlighted low potential for roosting bats in the main house. Therefore, a further bat dusk emergence survey was recommended.

1.4. The dusk emergence survey was carried out on the 20th July 2020 and during the survey roosting bats were identified. Therefore, further bat activity surveys were recommended. A bat dawn swarming survey and further internal inspection were carried out on 6th August 2020 and a further dusk emergence survey on 4th September 2020.

1.5. This report outlines the findings of all surveys, makes appropriate recommendations and includes a mitigation strategy.

1.6. Appendices I and II of this report provide additional information on protected species and the protection afforded to them and are designed to assist the reader in understanding the contents of this report.

2. SURVEY METHODOLOGY.

2.1. The building was 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 fascias 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 sills, 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. The subsequent dusk emergence and dawn swarming surveys were 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 or from at least an hour and a half before dawn to fifteen minutes after dawn.

2.6. 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 where appropriate.

2.7. 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.

2.7. The surveys were undertaken by a team of Whitcher Wildlife Ltd ecologists led by Derek Whitcher who has over twenty years' experience of surveying for wildlife and has run his own wildlife consultancy since 1998. He has extensive experience of a wide variety of survey techniques for a variety of species of protected wildlife supplemented by attendance on a wide range of training courses through CIEEM, FSC and BCT. As a member of CIEEM he is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership. He holds current Natural England survey licences for barn owl, bat, great crested newt and white clawed crayfish.

3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. A data search request was submitted to South Yorkshire Bat Group for records of existing bat roosts within 2km of the site.

3.1.2. The data search results returned an abundance of records and activity survey records but no records of relevance to the survey area. The closest records were for Elsecar Heritage Centre where a number of bat species have been recorded included Common Pipistrelle, Soprano Pipistrelle and Daubenton's bat roosts.

3.1.3. The full list of records can be provided as a separate document on request.

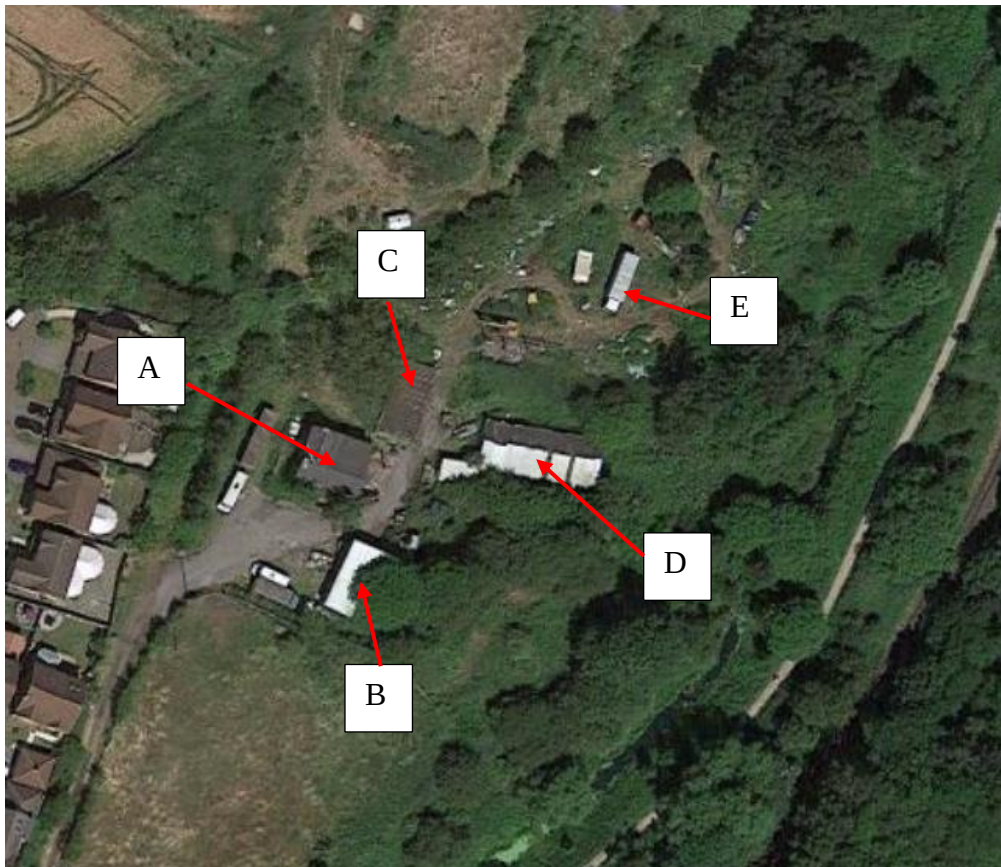
3.2. Site Description.

3.2.1. The site is located at the northeast corner of Elsecar with a large residential area to the south and west, arable fields to the north and with the Elsecar Canal corridor passing to the east with woodland and open farmland beyond.

3.2.2. The aerial photograph below shows the location of the house to be demolished, marked with a red arrow.



3.2.3. The aerial below shows a close up of the site and buildings on the site. Each building included within the survey is marked with an individual identification letter.



3.2.4. Each building is dealt with separately below.

3.3. Daytime Bat Survey Results.

3.3.1. *Building A, The House.*

The existing dwelling is in three separate parts.

3.3.1.1. *The Original House.*

3.3.1.1.1. The first part is the original house, shown in the photograph below with a newer, single storey stone porch on the front. The main house is a stone building that has been rendered. That rendering has deteriorated and there are large patches of render missing exposing the stone walls beneath.



3.3.1.1.2. The timber window and door frames have all rotted leaving gaps around the frames and there are gaps in the stonework that provide opportunities for roosting bats and nesting birds.



3.3.1.1.3. This section of the building has been re-roofed and the new roof comprises interlocking cement slates with a felt lining underneath. This roof is intact and in good condition.

3.3.1.1.4. Internally, the loft space is inaccessible with a very small hatch located over the steep stairs.

3.3.1.1.5. Underneath this section of the house there is a cellar. This is well lined, clean and in good condition and provides no access for bats or birds.



3.3.1.1.6. No bats or bat field signs were identified in this section of the building although there are gaps in the exposed stonework and behind the fascia boards that provide potential for individual crevice dwelling bats. Therefore, the original part of the house is assessed to have a low potential for bats.

3.3.1.2. The Old Extension.

3.3.1.2.1. At the rear of the original house there is a two-storey extension built with stone first storey walls with solid brick walls above and a pitched, slate covered roof. The photograph below shows the western elevation.



3.3.1.2.2. The photograph below shows the northern elevation



3.3.1.2.3. The photograph below shows the slate covered roof.



3.3.1.2.4. Internally, the upstairs room extends into the loft space leaving only a shallow but inaccessible loft space above.

3.3.1.2.5. There is a crack in the external wall that may provide an opportunity for roosting bats and there are gaps behind the fascia board. This section of the building was assessed to have a low potential for roosting bats.

3.3.1.3. New, Mono-Pitched Extension

3.3.1.3.1. Finally, in the northeast corner of the building, there is the latest of the extensions. This is a completely rendered extension with a mono-pitched roof covered with interlocking concrete slates.



3.3.1.3.2. This section of the building was assessed to have negligible potential for roosting bats.

3.3.2. *Building B, Agricultural Shed.*

3.3.2.1. Building B is a steel framed, agricultural building with concrete block lower walls topped by steel cladding to the upper walls and roof, shown in the two photographs below.



3.3.2.2. This building has no potential for roosting bats.

3.3.3. *Building C, Stable Block.*

3.3.3.1. Building C is a stable block with painted concrete block walls and with a mono-pitched roof covered with corrugated cement sheets, shown in the two photographs below.



3.3.3.2. The photograph below looks inside one of the stables.



3.3.3.3. No bats or bat field signs were found inside or outside this building and the building is assessed to have negligible potential for roosting bats.

3.3.4. *Building D, Second Stable Block.*



3.3.4.1. Building D is a second stable block, constructed with solid concrete block walls and partitions with a corrugated concrete roof above.

3.3.4.2. Adjacent to this block there is a store constructed with a single skin brick wall topped with corrugated metal sheets and with a mono-pitched metal sheet covered roof.



3.3.4.3. Neither of these buildings are suitable for roosting bats.

3.3.5. E. Other Storage Units.

There are lorry containers in the yard, as shown below and these are unsuitable for roosting bats.



3.3.6. Daytime Bat Survey Results Summary.

3.3.6.1. No bats or bat field signs were found in any of the buildings on the site. However, the original house was assessed to have a Low Potential for roosting bats whilst the remaining buildings were all assessed to have negligible or no potential for roosting bats.

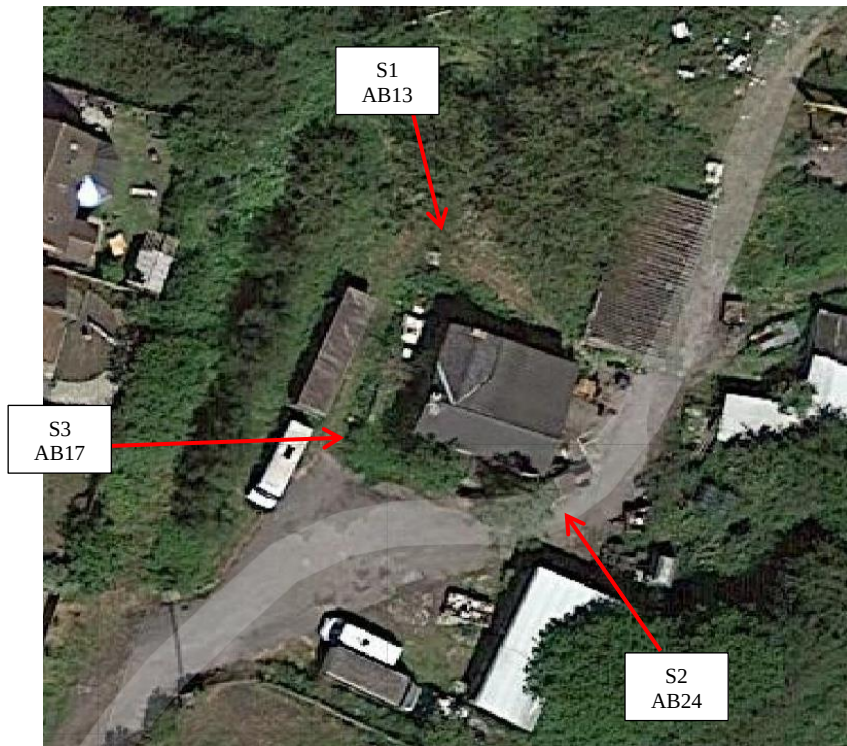
3.3.6.2. No old birds' nests were identified in any of the buildings. Other than the holes in the front wall, there are no opportunities for nesting birds in the house. The remaining buildings are open so there is the potential for birds to nest in the stables and outbuildings.

3.4. Dusk Emergence Survey Results, 20th July 2020.

3.4.1. A dusk emergence bat survey of the building was carried out by three surveyors on the 20th July 2020. Two surveyors hold a Natural England bat survey licence the other is an experienced assistant. All surveyors were equipped with a Batbox Duet bat detector, a two-way radio for communication and a static Anabat detector.

3.4.2. The weather at the time of the survey was fine throughout the survey. The evening had a light breeze to 1BWS. A temperature of 17.5°C was recorded at 21:00 and a temperature of 12.5°C was recorded at the end of the survey. Sunset on the day of the survey was at 21:20.

3.4.3. The positions of the surveyors and Anabat bat detectors during the survey are shown on the below plan marked by S, a surveyor and AB, an Anabat.



3.4.4. A brief outline of the findings from each of the surveyors is included below.

3.4.4.1. Surveyor 1.

- 21:46– Common Pipistrelle flew west to east over the building.
- 21:48– Common Pipistrelle heard not seen.
- 21:50– Common Pipistrelle heard not seen.
- 21:53– Common Pipistrelle heard not seen.
- 21:57– Common Pipistrelle flew past the west side of the site.
- 21:59– Common Pipistrelle heard not seen.
- 22:08– Common Pipistrelle foraging to the west of the site.
- 22:11– Common Pipistrelle flew west to east.
- 22:13– Common Pipistrelle heard not seen.
- 22:14– Common Pipistrelle heard not seen, foraging to the north.
- 22:23– Common Pipistrelle foraging to the north.
- 22:40– Common Pipistrelle heard not seen.
- 22:44– Common Pipistrelle heard not seen.
- 22:45– Common Pipistrelle heard not seen.

Anabat 13 with Surveyor 1 recorded four Common Pipistrelle calls between 21:44 and 22:50 and three Noctule calls between 21:46 and 22:43. No other species of bat were recorded.

3.4.4.2. Surveyor 2.

- 21:28– Soprano Pipistrelle emerged from under the edge of a tile on the gable end and flew east.
- 21:31– Soprano Pipistrelle emerged from under the edge of a tile on the gable end and flew east.
- 21:44– Common Pipistrelle flew west to east.
- 21:46– Common Pipistrelle flew west to east.
- 21:48– Common Pipistrelle flew west to east.
- 21:50– Common Pipistrelle flew east to west.
- 21:50– Common Pipistrelle flew west to east.
- 21:57– Noctule flew north to south.
- 22:05– Common Pipistrelle foraging to the north.
- 22:12– Bat flew out of a missing ground floor window then flew back in. Not echolocating.
- 22:13– Common Pipistrelle heard not seen.
- 22:21– Bat flew out of a missing ground floor window then flew back in. Not echolocating.
- 22:32– Bat flew out of a missing ground floor window and off site. Not echolocating.
- 22:39– Common Pipistrelle heard not seen.

Anabat 24 with Surveyor 2 recorded five Common Pipistrelle calls between 21:44 and 22:39, one Noctule call at 21:57 and two Soprano Pipistrelle calls at 21:28 and 21:31. No other species of bat were recorded.

3.4.4.3. Surveyor 3.

- 21:38– Common Pipistrelle heard not seen.
-
- 21:44– Common Pipistrelle heard not seen.
- 21:46– Common Pipistrelle heard not seen.
- 21:48– Common Pipistrelle flew from the north then flew east.
- 21:48– Common Pipistrelle flew from the north then flew east.
- 21:49– Common Pipistrelle heard not seen.
- 21:50– Common Pipistrelle from the south, foraged briefly then flew south.
- 22:05– Common Pipistrelle heard not seen.
- 22:22– Common Pipistrelle heard not seen.
- 22:40– Common Pipistrelle heard not seen.
- 22:42– Common Pipistrelle heard not seen, distant.

- 22:46– Common Pipistrelle heard not seen.

Anabat 17 with Surveyor 3 recorded seven Common Pipistrelle calls between 21:38 and 22:46, three Noctule calls between 21:45 and 22:43 and one very brief myotis call at 22:44. No other species of bat were recorded.

3.4.5. During the survey Surveyor 2 had two Soprano Pipistrelle bats emerge from the building and one bat fly out of a ground floor window and back in a few times before flying out and leaving site. This bat was not echolocating and is presumed to have emerged inside the building.

3.4.6. The main activity recorded was Common Pipistrelle bats passing the site and mainly flying east with little foraging on site. Three Noctule bats passed over the site. A very brief myotis call was recorded passing the southern side of the site. The two Soprano Pipistrelle bats that emerged both immediately left site to the east.

3.4.7. The photograph below shows the locations the two Soprano Pipistrelle emerged from and the window the bat flew out of.



3.5. Internal Inspection Survey Results, 6th August 2020.

3.5.1. The building was searched for bat field signs. On the first floor of the building a concentration of approximately 50 fresh bat droppings with some moth wings was identified. This was located under a doorway between two rooms where the frame has been removed leaving a gap above the top of the doorway. No bat was present in the gap before or after the survey.

3.5.2. The photographs below show the doorway, the gap above and the droppings on the floor.



3.5.3. During the survey a few scattered droppings were also found on the stairs showing that the bat roosts on the first floor and enters and exits the building through the missing window on the ground floor.

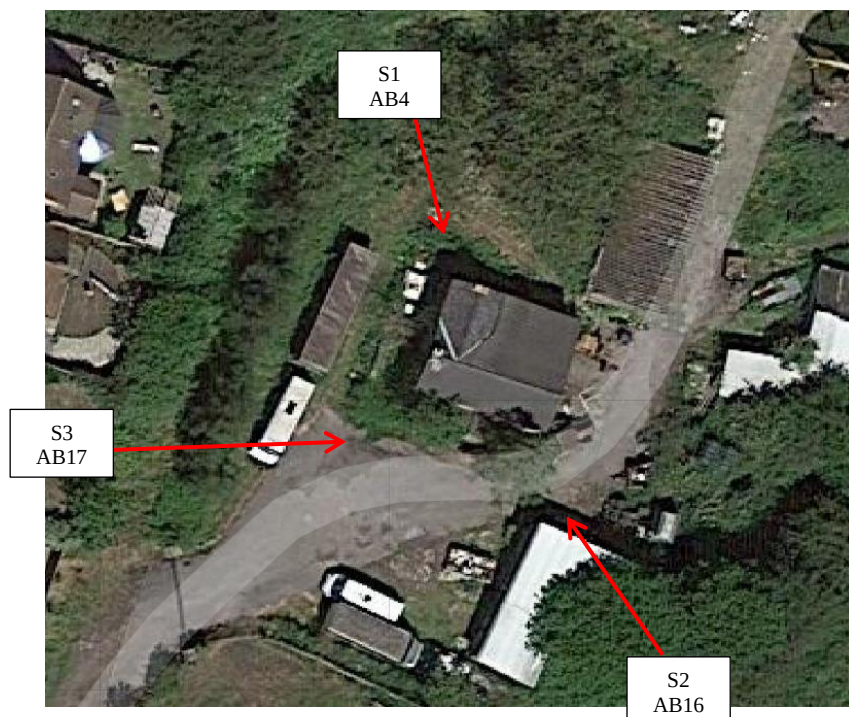
3.6. Dawn Swarming Survey Results, 6th August 2020.

3.6.1. A dawn swarming bat survey of the building was carried out by three surveyors on the 6th August 2020. Two surveyors hold a Natural England bat survey licence the other is an experienced assistant. All surveyors were equipped with a Batbox Duet bat detector, a two-way radio for communication and a static Anabat detector.

3.6.2. Two additional Anabat detectors were placed inside the building. Anabat 13 was located under the roost and Anabat 24 was located on the window sill of the missing window.

3.6.3. The weather at the time of the survey was fine and clear throughout the survey. The morning was still. A temperature of 18°C was recorded at 03:30 and a temperature of 17°C was recorded at the end of the survey. Sunrise on the day of the survey was at 05:29.

3.6.4. The positions of the surveyors and Anabat bat detectors during the survey are shown on the below plan marked by S, a surveyor and AB, an Anabat.



3.6.5. A brief outline of the findings from each of the surveyors is included below.

3.6.5.1. Surveyor 1.

- 04:04– Soprano Pipistrelle heard pass, not seen.
- 04:20– Soprano Pipistrelle flew north to south.
- 04:28– Soprano Pipistrelle heard pass, not seen.
- 04:42– Noctule heard pass, not seen.
- 04:43– Common Pipistrelle heard pass, not seen.
- 04:46– Noctule flew east to west.
- 04:51– Soprano Pipistrelle heard pass, not seen.
- 04:53– Common Pipistrelle heard pass in the distance, not seen.
- 04:58– Common Pipistrelle flew east to west.
- 05:00– Common Pipistrelle flew east to west.
- 05:05– Soprano Pipistrelle flew east to west.
- 05:08– Soprano Pipistrelle flew east to west then back east.
- 05:10– Noctule flew over from north to south.
- 05:12– Noctule flew over from north to south.
- 05:14– Noctule flew over from north to south.
- 05:15– Noctule heard pass, not seen.

Anabat 4 with Surveyor 1 recorded five Common Pipistrelle calls between 04:39 and 05:04, five Soprano Pipistrelle calls between 04:00 and 05:04 and five Noctule calls between 04:38 and 05:15. No other species of bat were recorded.

3.6.5.2. Surveyor 2.

- 04:08– Bat flew from the south, flew in the open window on the eastern side of the building then flew back out and off site. No call was heard.
- 04:13– Soprano Pipistrelle heard pass in the distance, not seen.
- 04:20– Soprano Pipistrelle heard pass, not seen.
- 04:28– Soprano Pipistrelle flew west to east past south side of building.
- 04:38– Soprano Pipistrelle heard pass in the distance, not seen.
- 04:42– Noctule heard pass, not seen.
- 04:54– Common Pipistrelle heard foraging to the east.
- 04:58– Common Pipistrelle flew east to west.
- 05:00– Soprano Pipistrelle swarmed briefly then **entered** a roost under the fascia board on the eastern side of the building.
- 05:05– Common Pipistrelle flew from east to west past the north of the building.

- 05:06– Soprano Pipistrelle flew from east to west past the north of the building.
- 05:07– Soprano Pipistrelle swarmed briefly then **entered** a roost under the fascia board on the eastern side of the building.
- 05:08– Soprano Pipistrelle swarmed briefly then **entered** a roost under the fascia board on the eastern side of the building.
- 05:12– Common Pipistrelle heard briefly, not seen.

Anabat 16 with Surveyor 2 recorded three Common Pipistrelle calls between 04:54 and 05:12, nine Soprano Pipistrelle calls between 04:03 and 05:08 and nine Noctule calls between 04:23 and 05:15. No other species of bat were recorded.

3.6.5.3. Surveyor 3.

- 04:08– Bat seen fly from the south towards Surveyor 2. No call heard.
- 04:09– Common Pipistrelle heard pass, not seen.
- 04:20– Soprano Pipistrelle flew from north to south.
- 04:28– Soprano Pipistrelle flew from north to south.
- 04:37– Soprano Pipistrelle heard pass, not seen.
- 04:39– Common Pipistrelle heard pass, not seen.
- 04:42– Noctule Pipistrelle heard pass, not seen.
- 04:54– Common Pipistrelle heard pass in the distance, not seen.
- 04:55– Common Pipistrelle heard pass, not seen.
- 04:57– Common Pipistrelle flew east to west.
- 05:12– Noctule flew over from north to south.
- 05:12– Common Pipistrelle flew east to west.
- 05:15– Noctule flew over from north to south.

Anabat 17 with Surveyor 3 recorded five Common Pipistrelle calls between 04:09 and 05:12, four Soprano Pipistrelle calls between 03:54 and 04:37 and eight Noctule calls between 04:23 and 05:15. No other species of bat were recorded.

3.6.5.4. Anabat 13 under the roost location of the first floor recorded no bat activity.

3.6.5.5. Anabat 24 on the window sill of the missing window on the ground floor recorded faint bat calls from bats outside. The Anabat recorded two Common Pipistrelle calls between 03:48 and 05:05, eight Soprano Pipistrelle calls between 03:49 and 05:08 and five Noctule calls between 04:43 and 05:15. No other species of bat were recorded. The bat that entered the window and flew back out did not echolocate as there was no call recorded at this time.

3.6.6. During the survey Surveyor 2 had three Soprano Pipistrelle bats enter a roost on the eastern side of the building under the fascia board at 05:00, 05:07 and 05:08.



3.6.7. At 04:08 a bat flew into the missing ground floor window then back out and off site to the east. The bat was not echolocating.

3.6.8. During the daytime inspection a concentration of 50 fresh droppings was identified in a doorway below a gap where the frame is missing on the first floor of the building.

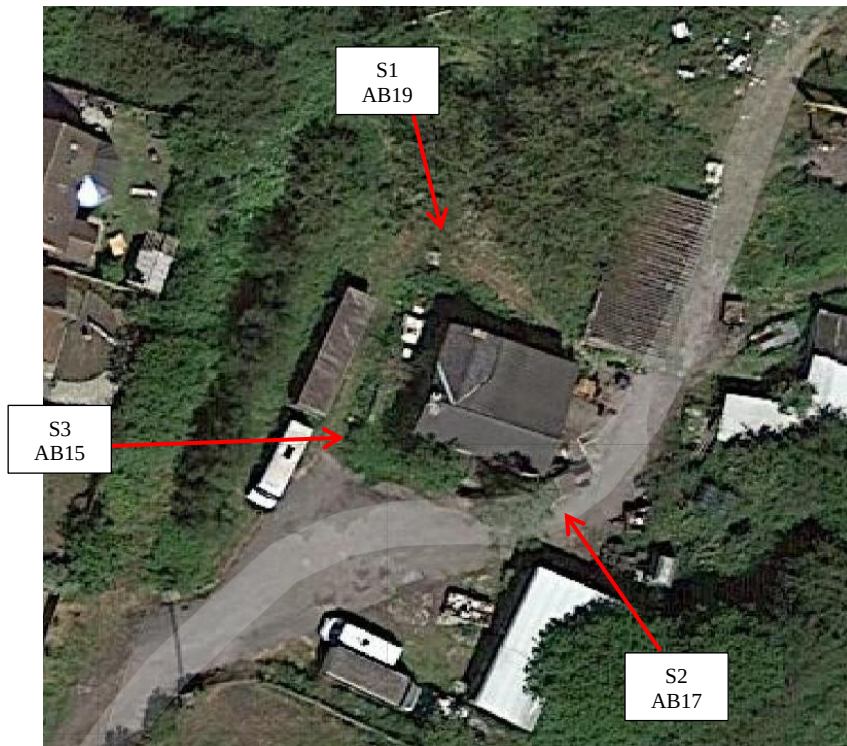
3.6.9. The main activity recorded on site was Common Pipistrelle and Soprano Pipistrelle bats passing the site and mainly flying west or north with very little foraging on site. A number of Noctule bats passed over the site flying south. No other species of bat were recorded.

3.7. Dusk Emergence Survey Results, 4th September 2020.

3.7.1. A dusk emergence bat survey of the building was carried out by three surveyors on the 20th July 2020. One surveyor holds a Natural England bat survey licence the other two are experienced assistants. All surveyors were equipped with a Batbox Duet bat detector, a two-way radio for communication and a static Anabat detector.

3.7.2. The weather at the time of the survey was fine and still with a 20% cloud cover. The evening was still, 0BWS. A temperature of 14°C was recorded at 19:00. Sunset on the day of the survey was at 19:44 and the survey commenced at 19:30.

3.7.3. The positions of the surveyors and Anabat bat detectors during the survey are shown on the below plan marked by S, a surveyor and AB, an Anabat.



3.7.4. The following outlines the observations of each surveyor.

3.7.4.1. Surveyor 1.

- 20:18. Noctule flew high over the site.
- 20:19. Soprano Pipistrelle passed north to south.
- 20:21. Soprano Pipistrelle passed west to east over the house.
- 20:22. Soprano Pipistrelle passed over the house east to west and then circled north of the house.
- 20:28. Soprano Pipistrelle heard not seen.

Anabat 19 with Surveyor 1 recorded three Soprano Pipistrelle calls between 20:22 and 20:28 and one Noctule call at 20:18. No other species of bat were recorded.

3.7.4.2. Surveyor 2.

- 20:08. Soprano Pipistrelle emerged from behind the fascia board.
- 20:12. Soprano Pipistrelle foraging north to south.
- 20:18. Noctule flew north to south over the site.
- 20:21. Common Pipistrelle passed south to north.
- 20:22. Soprano Pipistrelle foraging north of the house.
- 20:22. Quiet bat emerged from window of house.
- 20:27. Soprano Pipistrelle emerged from behind the fascia board of the house.

Anabat 17 with Surveyor 2 recorded fifteen Soprano Pipistrelle calls between 20:08 and 20:28, three Common Pipistrelles between 20:21 and 20:51 and one Noctule call at 20:18.

3.7.4.3. Surveyor 3.

20:18. Noctule flew north to south over the site.

20:19. Soprano Pipistrelle heard not seen.

20:21. Common Pipistrelle passed west to east south of the house.

Anabat 15 with Surveyor 2 recorded one Soprano Pipistrelle calls at 20:19, one Common Pipistrelle at 20:21 and one Noctule call at 20:18.

3.7.5. During the survey Surveyor 2 saw two Soprano Pipistrelle bats emerge from behind the fascia board on the east side of the house at 20:08 and 20:27.



3.7.6. At 20:22 a bat flew out of the missing ground floor window. The bat was not heard echolocating.

4. EVALUATION OF FINDINGS.

4.1. It is understood that Building A is proposed for demolition while the remaining buildings are to be retained and repaired.

4.2. Building A, the House was initially assessed to have Low Potential for roosting bats in line with the Bat Conservation Trust Good Practice Guidelines and therefore demolition prior to a dusk emergence survey has the potential to impact on any roosting bats present.

4.3. The remaining buildings were assessed to have negligible potential for roosting bats in line with the Bat Conservation Trust Good Practice Guidelines and therefore demolition of those buildings would have no impact on roosting bats.

4.4. During the first dusk emergence survey two Soprano Pipistrelle bats emerged from the roof of the main house and one unknown species of bat flew in and out of a ground floor window before leaving site, presumed to have emerged inside the building but was not echolocating so identification could not be made.

4.5. During the dawn swarming survey and additional daytime inspection survey a concentration of approximately 50 fresh bat droppings and moth wings were found on the first floor of the house under a gap in a doorway. Three Soprano Pipistrelle bats entered a roost under the fascia board on the eastern side of the building and a bat flew into the open ground floor window then back out. The bat was not echolocating, so the species is not known. This bat did not stay and roost in the building during this survey.

4.6. Subsequent to the above survey a brown long-eared bat was found roosting over a doorway where the owner had removed some internal timbers.

4.7. During the second dusk emergence survey two Common Pipistrelles emerged from behind the same section of fascia board and a quiet bat emerged from the down stairs window.

4.8. There is potential for nesting birds in the front wall of Building A, the house. Therefore, demolition during the nesting season, between March and September, has the potential to impact on any nests present.

4.8. No nests were found in Buildings B to E during this survey. Nevertheless, all are assessed to have potential for nesting birds during the nesting season and therefore, any works to these buildings between March and September has the potential to impact on any nests present.

5. RECOMMENDATIONS.

5.1. Small numbers of Soprano Pipistrelles have a day roost behind the fascia board of the main house and an opportunistic Brown long-eared bat has moved into the house to occupy a day roost. This bat has only just commenced roosting since internal works were started and exposed an area inside the building for the bat to roost, entering the building through a window that had previously been shuttered and closed but recently opened.

5.2. Three surveys have now been carried out in line with the BCT Good Practice Guidelines. Therefore, a mitigation strategy has been included on the end of this report outlining how the bats will be dealt with during and after the proposed works. Once planning consent has been granted, this mitigation strategy will be used as the basis for a Natural England licence application.

5.3. No works should be undertaken on the house until the Natural England Licence has been granted and then the works should be carried out as outlined in that licence.

5.4. It is recommended that demolition and repair of the existing buildings is undertaken outside the nesting season, which extends from March to September each year. Any works that need to be undertaken during that time frame should be preceded by a nesting bird survey and any active nests found must be left undisturbed until the young have fledged.

5.5. In line with the requirements of the NPPF, it is recommended that biodiversity enhancements are provided. In this case, an integrated bat brick and a Brown long-eared bat roost will be designed into the new dwelling in connection with the Natural England Licence.

5.6. Biodiversity enhancements will be provided on site by providing six nest boxes mounted on trees within the site.

5.7. Further Biodiversity enhancements will be provided by additional planting of native species across the site.

6. MITIGATION STRATEGY.

The following mitigation strategy is written in the old format of the Natural England licence application for ease of reading and to provide an understandable structure to the mitigation strategy.

D. Impact assessment in absence of mitigation.

D1. Short-term impacts: disturbance.

There would be a significant short-term impact on the bat roosts identified in the building as a result of the increase in noise, light and vibration caused during the demolition works if the works were carried out when bats were present in the roosts.

D2. Long-term impacts: roost modification.

There would be no impact through roost modification as the existing roosts would be destroyed by the demolition of the existing building. There will be no roost modification.

D3. Long-term impacts: roost loss.

Without mitigation there would be a significant impact due to the loss of the existing bat roosts during the demolition of the existing building.

D4. Long-term impacts: fragmentation and isolation.

D4.1. The demolition would be confined to the building with the surrounding habitat and boundary lines remaining undisturbed. Therefore, there would be no significant impact through fragmentation or isolation of habitats due to the works because these areas would remain unaffected.

D5. Post-development interference impacts.

The building is currently a detached building in an isolated position. The demolition of this building and the replacement with a new dwelling in its place will create no increase in human disturbance levels. There will be the potential for light impacts if the external lighting scheme is not designed carefully.

D6. Predicted scale of impact.

The scale of the impact would be low at a local level without mitigation because the demolition of the existing dwelling would potentially cause the loss of a Brown Long-eared bat day roost and a small male day roost of Soprano Pipistrelles.

A. Mitigation and compensation.

A1. Summary of mitigation strategy.

A1.1. This mitigation strategy is designed to aid the planners. Once planning permission has been obtained the contents of this mitigation strategy will be used as the basis for a Natural England EPS licence. No works can be undertaken on the existing dwelling until that licence has been issued.

A1.2. Before any demolition works commence on the existing building, a Miramare bat box or equivalent will be erected on a tree or pole at the site. The location will be agreed with the ecologist.



A1.3. On receipt of the licence and between October and March, the roof tiles will be removed. Those where bats have been found roosting will be stripped with the

ecologist present to hand search beneath the tiles and to relocate any bats found to the above bat box.

A1.4. Likewise, the area inside the building where the brown long eared bat is roosting will be removed by hand with the ecologist present. Any bats found will be relocated to the above bat box.

A1.5. When the ecologist is satisfied no bats remain, the building will be released for full demolition to take place.

A1.6. To mitigate for the loss of the brown long eared bat and the Soprano Pipistrelle roost, replacement roosting opportunities will be created in the new dwelling in the form of an integrated bat brick.

B. Works to be undertaken by the ecologist.

B1. Capture and exclusion.

B1.1. The ecologist will be present on the site to supervise the removal of the roof tiles in the sensitive areas and in the doorway where the brown long eared bat has been roosting. In the unlikely event that bats are encountered during the work, the ecologist will carefully move the bats to the bat box provided for the purpose.

B1.5. Upon completion of the works the ecologist will inspect the mitigation to ensure that the mitigation has been created in line with this document.

C. Works to be undertaken by the Developer/Landowner.

C1. Bat roosts.

C1.1. In situ retention of roost(s).

There will be no direct retention of existing roosts.

C1.2. Modification of existing roosts.

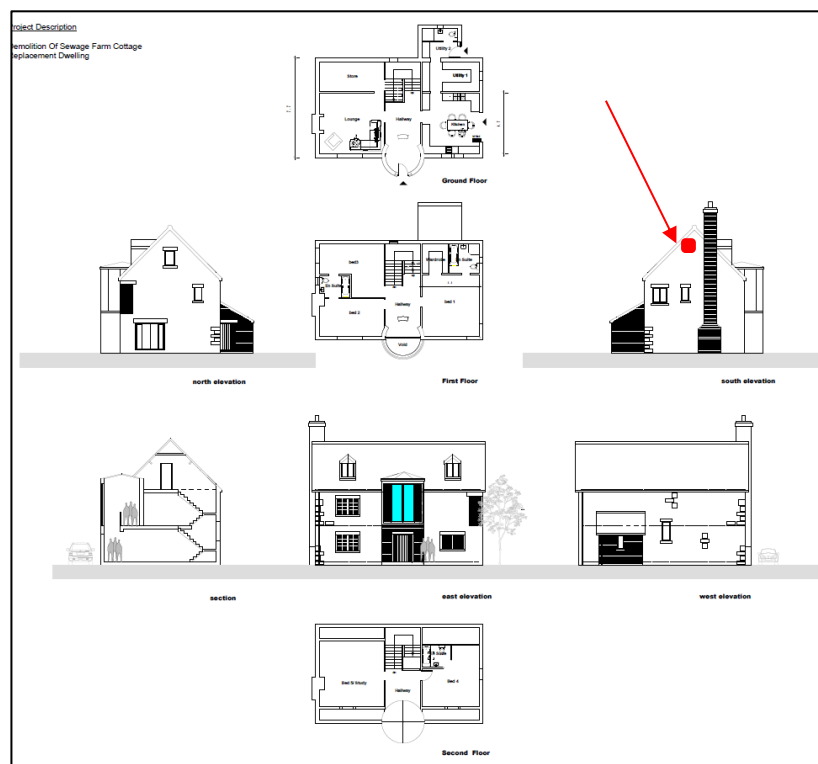
C1.2.1. There will be no modification of existing roosts.

C1.3. New roost creation.

C1.3.1. One integrated bat brick will be installed in the external walls of the new dwelling. A Habibat brick as shown below, or equivalent, will be installed to match the external finish of the walls.



C1.3.2. The integrate bat brick will be installed high in the south facing gable end wall as shown by the red square below.



D. Post-development site safeguard.

There will be no actions needed to safeguard the mitigation as it is an integral part of the development.

D1.2. Population monitoring, roost usage etc.

There will be no requirement for roost monitoring for such a small scheme.

D1.3. Mechanism for ensuring delivery of post-development works.

D1.3.1. The owner of the site will be responsible for ensuring that finance is available to ensure the project is completed.

D1.3.2. The owner will be responsible for commissioning and funding the ecologist throughout the project.

F. Timetable of Works.

A: Development activities and timing		
Activity	Timing	Notes
Erect Miramare bat box	Any time	Before demolition of the existing building.
Demolition of the existing building.	Start October to March.	On receipt of licence.
Install bat brick in new dwelling	At any time of year.	During construction.

B: Post development monitoring						
Year						
Details	None necessary.					

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Checked by:	
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Appendix I. BAT INFORMATION.

Ecology

There are currently 18 species of bat residing in Britain, 17 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 sills, 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

Whitcher Wildlife Ltd

Ecological Consultants



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