Date: August 2020

Contract Ref: 2001

BAT SURVEY REPORT

COMMON BARN FARM, WOODGATE ROAD, LOWER BENTLEY, BROMSGROVE, B60 4HZ

for

RONALD CHEAPE

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CONTROL SHEET

Ronald Cheape
Common Barn Farm, Woodgate, Lower Bentley, Bromsgrove, B60 4HZ
Bat Survey Report

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Contract No.	Project Contact	Revision No.	Date of Issue
2001	Robert Pelc	01	28 August 2020

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Template Version: V8 (January 2020)

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1. RECOMMENDATIONS

1. Common Barn Farm has been confirmed as an active bat roost. **No works should be undertaken which damage, block or otherwise alter the identified roosts or risk disturbing, killing or injuring bats until the requisite licence has been obtained from Natural England** (see below).

2. The conversion of the barn to residential will require the prior acquisition of a bat mitigation (development) licence from Natural England. In order to apply for a Natural England licence full planning permission must be in place and all relevant (bat) Conditions discharged. This licence may only be granted subject to the following tests having been achieved[1]:

   - The development must demonstrate that it is required for reasons of '*over-riding public interest*';
   - There must be '*no satisfactory alternative*' to the development proposals as submitted and;
   - The proposals must not be detrimental to the '*favourable conservation status*' of the species affected (bats).

3. The following mitigation/compensation is the minimum requirement for works affecting:
   '*individual bats of common species'* (brown long-eared)
   '*small numbers of common species. Not a maternity site*' (common pipistrelle bats)
   '*Flexibility over provision of bat boxes, access to new buildings, etc. No conditions about timing or monitoring.*' (see Mitchell-Jones, 2004, Figure 4, pp.39).

   and

[1] From the 22 April 2019 Natural England introduced a charging system for the determination of bat mitigation (development) licenses. This includes all applications and modification requests received, unless the licence is issued for a purpose which is exempt from charges. Focus Environmental Consultants will provide further advice on charges attributable to your project.

'*small numbers of rarer species. Not a maternity site*' (*Myotis* sp. most likely whiskered/Brandt's bat).

'Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements.' (see Mitchell-Jones, 2004, Figure 4, pp.39).

4. This report is deemed valid for 12 months. Should any development work commence after this time has elapsed an update survey will be required to determine the status of the site during the intervening period.

1.1 Mitigation Strategy

The following scheme of mitigation, compensation and enhancement has been designed to effectively implement the 'mitigation hierarchy'. The scheme will include the features listed below.

- Pre-start survey (including dusk or dawn inspection subject to weather conditions) preceding start of works to identify any changes in roost status and confirm the location of any roosting bats prior to works commencing.

- Provision of a 'toolbox talk' to relevant development personnel (*e.g.* roofing contractor, demolition contractor, builder *etc.*) to ensure understanding of legal and practical requirements and facilitate smooth delivery of development.

- Direct ecological supervision of licensable development activities. Bats to be relocated by the named ecologist (or accredited agent) by hand to the receptor bat boxes, if required.

- Species-specific compensation and enhancement to offset development impacts including:

  - Four integrated bat boxes (e.g. Ibstock enclosed bat box, or Schwegler 2FR Bat Tube) should be integrated within an existing wall and new

internal walls of the barn on the northern wall and western gable wall. The boxes should be installed with bat box entrance matching the brick vents and at least 4m above ground-level, and not placed above windows.

- A new bat access to the south-western gable wall of the adjacent farmhouse should be provided by creating three crevices at the top of the wall. Access will be created by leaving a 50mm long x 25mm high gap at the top of the wall allowing bats to access the loft space within the farmhouse (details provided with the bat mitigation (development) licence from Natural England).

- Retention of the crevice at the top of the door lintel and providing an enclosed and narrow crevice along the lintel for bats to utilise.

- Sensitive lighting strategy. Strict control over the use of artificial night-lighting is essential to prevent unnecessary illumination of retained and adjacent wildlife habitats (particularly the northern site boundary). Where lighting is essential it must be low level (e.g. light bollards) and of the minimum wattage, and preferably not exceed existing baseline levels. The following documents should be used for guidance: Matthews et al., (2015) and Bat Conservation Trust & Institute of Lighting Professionals (2018).

2. SUMMARY OF RESULTS

1. Development proposals are for conversion of the barn to provide residential accommodation. Focus Environmental Consultants have been appointed by Ronald Cheape to provide advice on the potential impact of the proposals upon bats and make recommendations as appropriate to ensure compliance with wildlife legislation and recognised best practice.

2. A Preliminary Roost Assessment of Common Barn Farm (centred on Ordnance Survey grid reference SO 97924 65379) was undertaken on 10 July 2020. The survey site consists of a two-storey red brick clay tiled pitched roof barn attached to a two-storey farmhouse (to the south-east) and a single storey stables (to the north-west). A large opening allows bats to fly between the barn and stable interiors. The site is set in a rural area with a cluster of suitable old buildings. Fosters Green Meadows National Nature Reserve is located approximately 500m south of the site.

3. The barn was identified as a confirmed roost with reference to published guidelines (Collins, 2016), due to the presence of several piles of fresh bat droppings and urine staining within the barn. Therefore, further specialist bat surveys were recommended.

4. One dusk emergence and one pre-dawn return survey was undertaken of the building on 29 July 2020 and 13 August 2020 respectively by two experienced and appropriately licensed surveyors.

5. The surveys have confirmed the presence of a common pipistrelle day roost, *Myotis* sp. (most likely whiskered/Brandt's bat) and brown long-eared bat day roost within the barn.

6. Bat foraging and commuting activity was observed on site during all of the surveys. The following bat species were recorded on / passing through the site; common pipistrelle, soprano pipistrelle, brown long-eared bat, noctule, serotine and *Myotis* sp.

3. DISCUSSION & CONCLUSIONS

3.1 Interpretation of Results

Common Barn Farm supports a day roost of common pipistrelle, *Myotis* sp. and a non-echolocating bat species (most likely brown long-eared). The non-echolocating bat and *Myotis sp.*(most likely whiskered/Brandt's bat based on echolocation call spectrogram analysis) bat emerged from around eaves height on the north-west gable end and one *Myotis sp.* (whiskered/Brandt's bat) also emerged from the ridge of the stables, which is linked to the survey barn by a large hole in the gable wall. Common pipistrelle emerged and returned to brick air vent holes on the north-west gable end and north-east elevation. There was a peak count of three common pipistrelle on the pre-dawn return survey.

The survey was undertaken during the breeding season and there is no indication of a maternity colony within the site.

Taken collectively the survey results obtained have confirmed that Common Barn Farm supports a day roost for a small number of common pipistrelle bats, *Myotis* sp. bats and solitary brown long-eared bat.

On the dusk survey common pipistrelle were seen flying in and out of the stables, and as there is direct access between the stables and the barn it is possible they were using the barn as well. On the pre-dawn survey one surveyor entered the barn three times to check for roosting bats and although no bats were seen the view was very limited due to the barn being full of stored items.

The possibility of the structure being used during the winter period for hibernation cannot be entirely ruled out.

Taking the results collectively and applying the guidelines of Natural England (see Mitchell-Jones, 2004, p 39 Figure 4) the conservation significance of the identified roosts is **medium** based on the presence of:

'*individual bats of common species'*

'small numbers of non-breeding common species. Not a maternity site'
'*small numbers of non-breeding rarer species. Not a maternity site*'

3.2 Predicted Impact in Absence of Mitigation

Short-term impacts: In the absence of mitigation, the proposed conversion of the survey barn at Common Barn Farm into residential accommodation could result in the killing/injury of small numbers of common pipistrelle, *Myotis* sp. bats (whiskered/Brandt's) and a solitary brown long-eared bat. Associated impacts may include noise, dust, vibration and physical disturbance.

Long-term impacts: In the absence of mitigation, the proposed conversion of the surveyed barn at Common Barn Farm would cause the destruction of a day roosts for a small number of common pipistrelle, *Myotis* sp. (whiskered/Brandt's) bats and a solitary brown long-eared bat.

No fragmentation or isolation impacts are predicted. It is anticipated that night-lighting is to remain minimal and low-level, post development.

3.3 Predicted Scale of Impact

Taken collectively and applying the guidelines of Natural England (see page 37 of Mitchell-Jones, 2004 and Natural England and DEFRA's Standing Advice (Natural England & DEFRA, 2015), the scale of impact on the bat species presently roosting within Common Barn Farm is **medium**. This assessment is based on the destruction of a day roosts of common pipistrelle, *Myotis sp*. and brown long-eared bats.

3.4 Compliance with Three Licensing Tests

It is the opinion of the author of this report that provided an appropriate scheme of mitigation, compensation and enhancement measures is provided, it should be possible to demonstrate compliance with the 'favourable conservation status test'. The 'over-riding public interest' and 'no satisfactory alternative test' are not primarily ecological considerations and will be addressed by other parties within any future licence application as required. In our experience, and based on the evidence available at this juncture we consider it likely that a bat mitigation licence will be forthcoming from the relevant SNCO for this development project.

4. ANNEXES

4.1 Photographs

All photographs taken 10 July 2020

Plate 1: Showing a typical view of the barn. Photograph looking at the south western elevation.

Plate 2: Showing a typical view of the barn. Photograph looking at the northern gable.

Plate 3: Photograph showing narrow crevices around the wooden door frame.

Plate 4: Photograph showing large gap in the wall between the barn and the stables.

Plate 5: Showing a typical view of the barn interior. Photograph looking north-east.

Plate 6: Photograph showing bat droppings located above the barn door lintel.

Plate 7: Photograph showing southern gable. Red arrows indicating gaps between roof beams and gable wall suitable for roosting bats.

Plate 8: Photograph showing small concentration of bat droppings within the barn.

Plate 9: Photograph showing the north-west gable end with the approximate location of a common pipistrelle bat roosts circled. The right circle is the location of the non-echolocating bat and *Myotis* sp. dusk emergence.

Plate 10: Photograph showing the south-west elevation with the approximate location of the common pipistrelle pre-dawn return marked with a circle. The doors were closed at the time and the bat entered the barn via a gap at the side of the closed doors.

Plate 11: Photograph showing the north-west gable end and north-east elevation with the approximate location of common pipistrelle bat roosts circled.

4.2 Survey Data

A brief summary of the results of each nocturnal survey is provided below, along with sonograms and DNA analysis. Field survey recording sheets are held by Focus Environmental Consultants and are available on request.

Dusk Emergence Survey (29 July 2020):

Surveyor 1 was positioned on the north-east corner of the bard.

Surveyor 2 was located south-west of the barn.

The survey started at 20:48. The first bat detected was a noctule at 21:15. At 21:21 a common pipistrelle emerged from one of the missing brick vents on the north-west gable end at about gutter height. A second common pipistrelle emerged from a similar location at 21:33. At 21:29 a non-echolocating bat (most likely brown long-eared bat) emerged from around the eaves of the north-west gable end. At 21:38 a *Myotis* sp. bat (whiskered/Brandt's bat, ID based on echolocation call spectrogram analysis) emerged from around the eaves of the north-west gable end of the barn. There was frequent activity from common pipistrelle throughout the survey with occasional activity from big bats (noctule/serotine) and *Myotis* sp. and one pass of a soprano pipistrelle. The last bat detected was a common pipistrelle at 22:33. The survey ended at 22:33.

Dusk Survey Count:

Common pipistrelle: 2

Myotis sp. (whiskered/Brandt's bat): 1

Non-echolocating (brown long-eared): 1

Pre-Dawn Return Survey (13 August 2020):

Surveyor 1 was positioned on the north-east corner of the barn.

Surveyor 2 was located south-west of the barn.

The survey started at 04:11. The first bat detected was a common pipistrelle at 04:12. At 05:11 a common pipistrelle returned to roost in a vent hole on the north-west gable end. At 05:12 another common pipistrelle returned to roost in a vent hole on the north-east side wall. At 05:26 a common pipistrelle entered the barn via a gap at the edge of the closed sliding doors on the south-west side wall. At 05:28 another common

pipistrelle returned to roost in a partially blocked vent hole on the north-east side wall. There was frequent activity throughout the survey from common pipistrelle, soprano pipistrelle, brown long-eared bat, noctule and *Myotis* sp. and two passes by a big bat, possibly a serotine. The last bat detected as a noctule at 05:30. The survey ended at 06:00.

<u>Pre-Dawn Survey Count</u>:

Common pipistrelle: 4

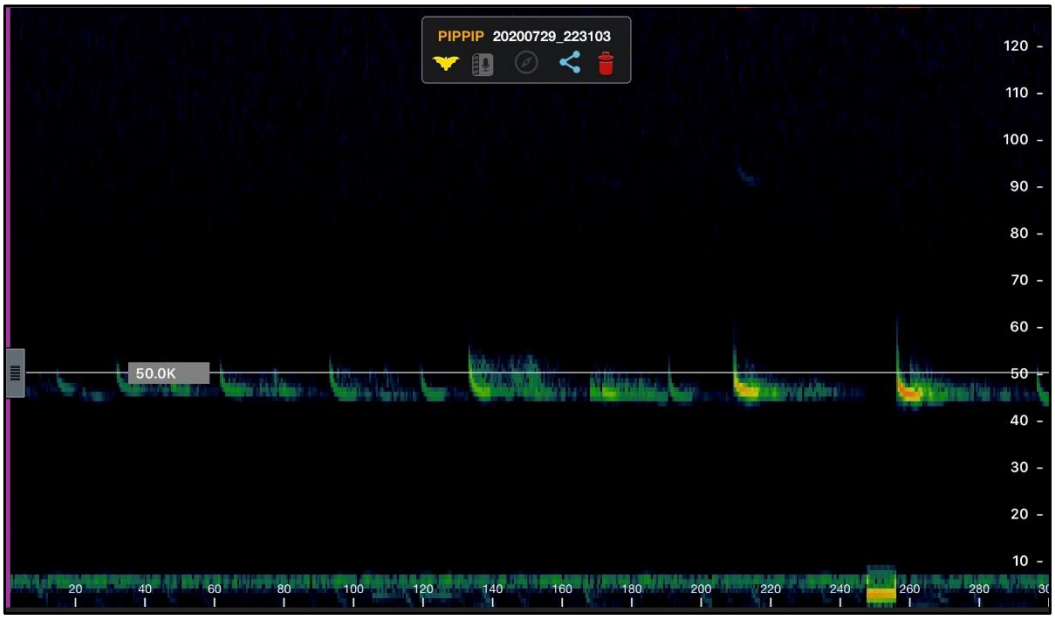

Figure 1: Showing a common pipistrelle echolocating at 22:31 on 29 July 2020 during the dusk emergence survey at Common Barn Farm.

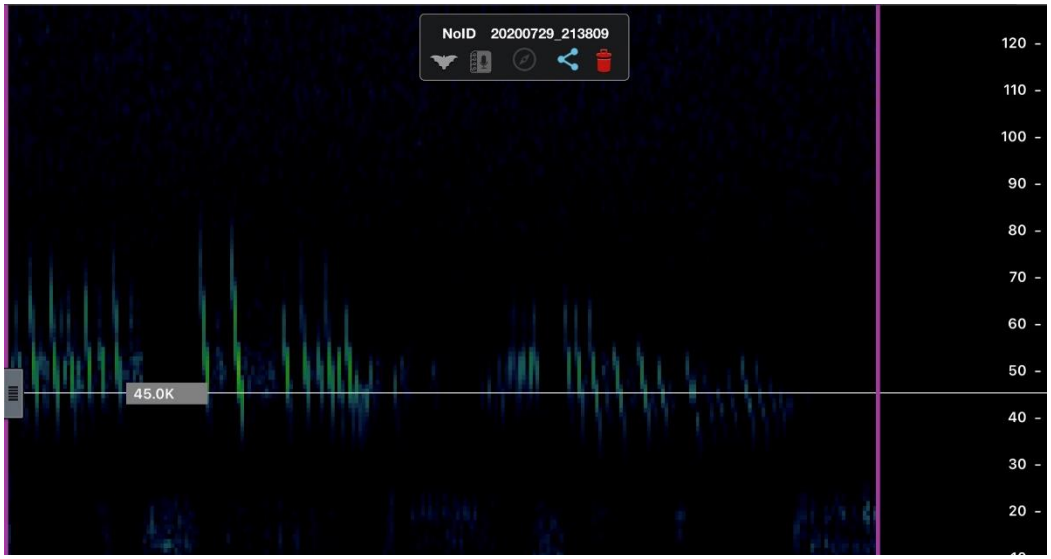

Figure 2: Showing a *Myotis* sp. (whiskered/Brandt's bat): echolocating at 21:38 on 29 July 2020 during the dusk emergence survey at Common Barn Farm.

DNA Analysis

Sample was collected from the area of the barn interior under the ridge beam of the Common Barn Farm. The bat droppings have been confirmed as being from common pipistrelle bats *Pipistrellus pipistrellus* (see correspondence from Warwick University, below).

WARWICK
THE UNIVERSITY OF WARWICK

EcoWarwicker
Ecological Forensics

25 August 20

Re: Identification Results for Paige Suthard, Focus Ecology Ltd

Job number 15656, received 12 August 2020
Sample labelled: Sample 1: 2001 Common Barn Farm
PCR amplification successful. DNA sequence:
GAAAATCCCACCCCCTGATCAAAATCATCAATAACTCATTCATTGATCTACCAGCTCC
ATCAAACATTTCAGCATGATGAAATTTTGGGTCCCTACTAGGCATCTGTTTGG

Phylogenetic analysis identification: *Pipistrellus pipistrellus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

Professor Robin Allaby

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4.3 Plans

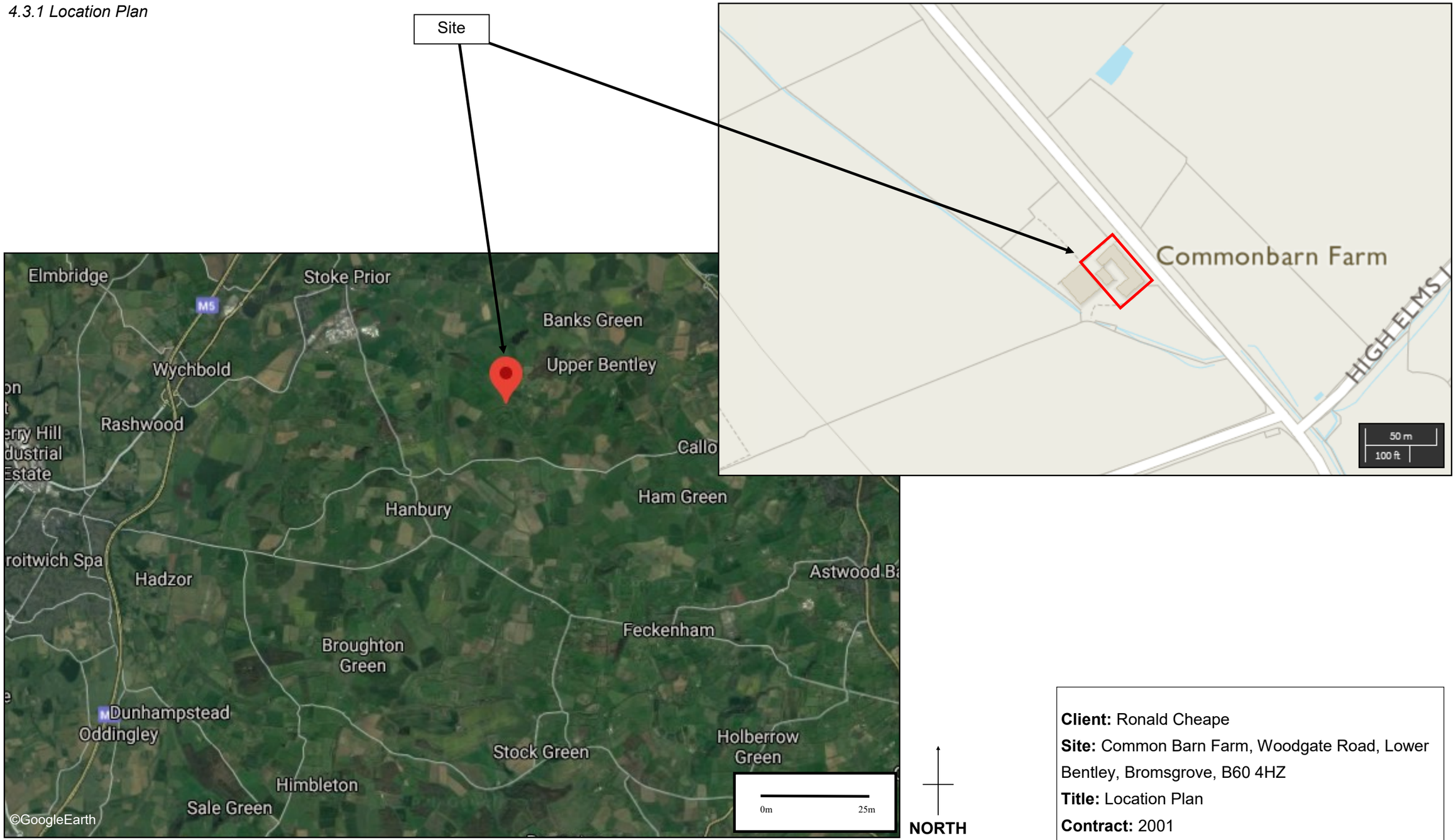
Plans:

4.3.1 Location Plan

4.3.2 Dusk Emergence Survey Plan (29 July 2020)

4.3.3 Pre-dawn Return Survey Plan (13 August 2020)

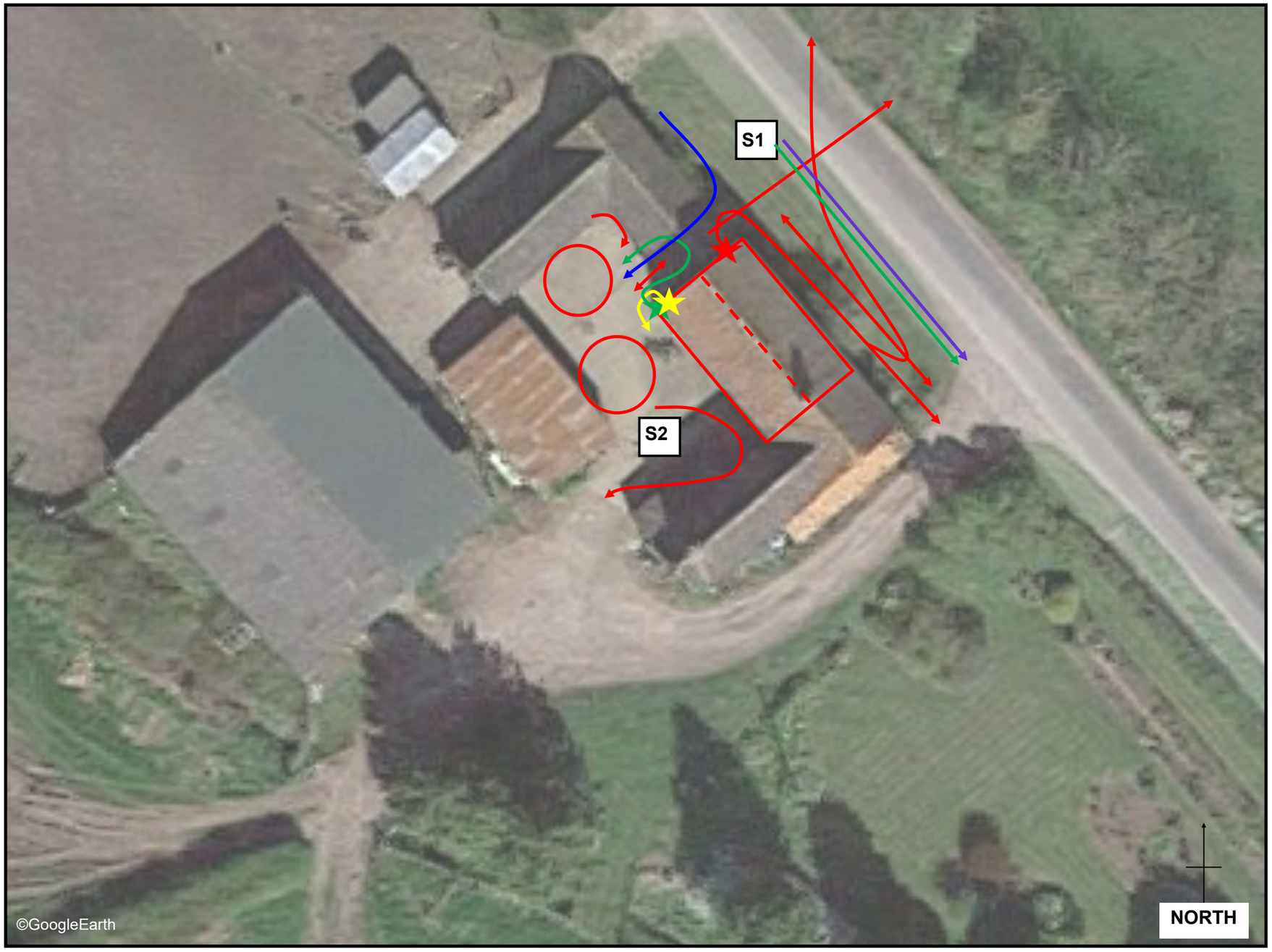
4.3.1 Location Plan



Client: Ronald Cheape
Site: Common Barn Farm, Woodgate Road, Lower Bentley, Bromsgrove, B60 4HZ
Title: Location Plan
Contract: 2001
Date: August 2020

Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.

4.3.2 Dusk Emergence Survey Plan—29 July 2020



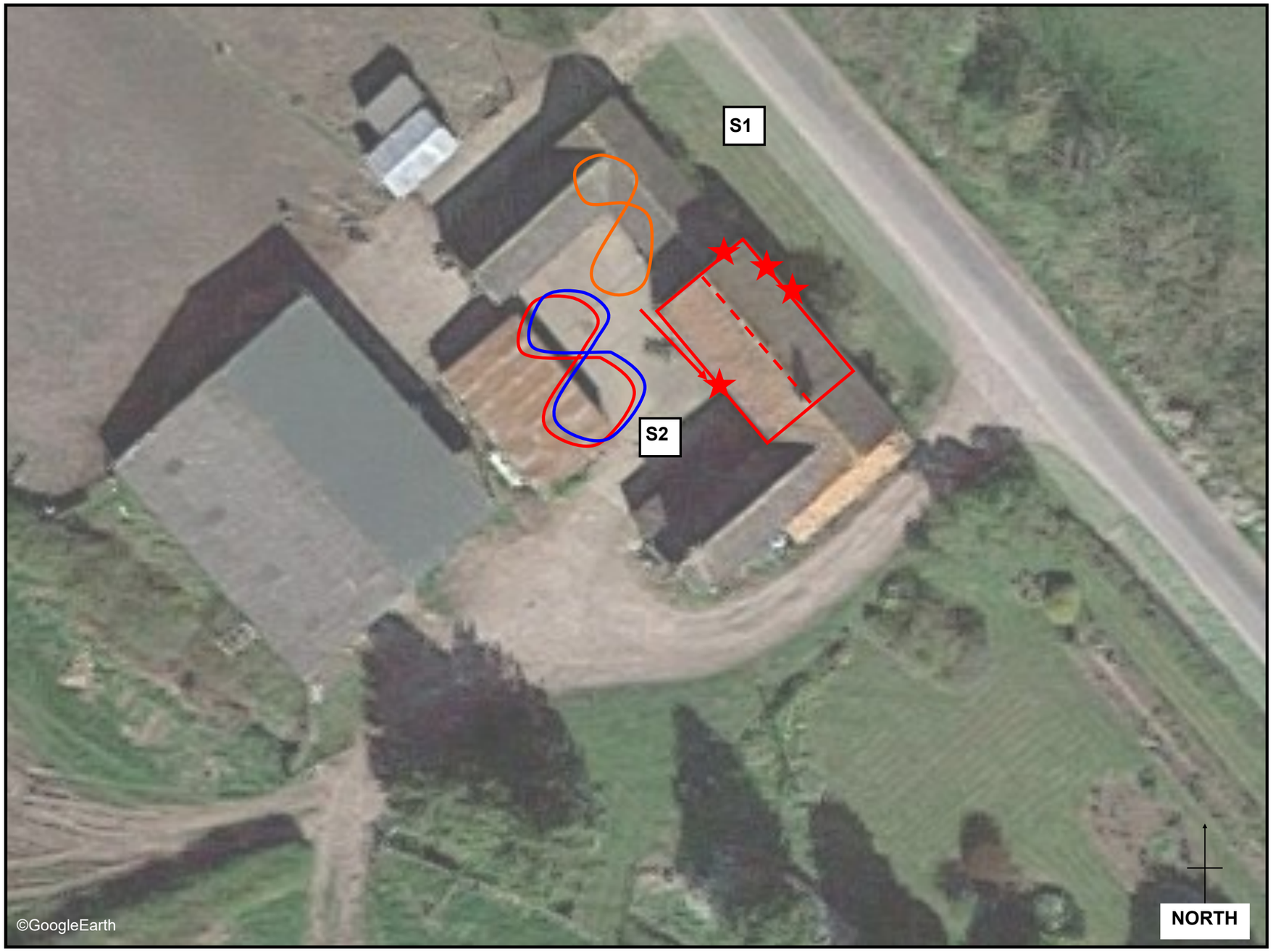
KEY:

- Survey Area
- S# Surveyor Number / Location
- Common pipistrelle (45kHz) roost
- Non-echolocating bat roost
- *Myotis* sp. bat roost
- Common pipistrelle (45kHz) activity
- Soprano pipistrelle (55kHz) activity
- Non-echolocating bat activity
- *Myotis* sp. bat activity
- Big bat (noctule/serotine) activity

Client: Ronald Cheape
Site: Common Barn Farm, Woodgate Road, Lower Bentley, Bromsgrove, B60 4HZ
Title: Dusk Emergence Survey Plan
Contract: 2001
Date: 29 July 2020

Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.

4.3.3 Pre-dawn Survey Plan—13 August 2020



KEY:

- Survey Area
- S# — Surveyor Number / Location
- Common pipistrelle (45kHz) roost
- Common pipistrelle (45kHz) activity
- Brown long-eared bat activity

Client: Ronald Cheape
Site: Common Barn Farm, Woodgate Road, Lower Bentley, Bromsgrove, B60 4HZ
Title: Dusk Emergence Survey Plan
Contract: 2001
Date: 13 August 2020

Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.

4.4 Survey Objectives

The objectives of the survey were:

- to carry out nocturnal bat roost surveys based on the suitability of the barn for bats and previous daytime survey work completed;
- to provide specialist advice on the possible presence of bats in relation to the planning process;
- to report survey results, likely development impacts and make appropriate recommendations for further surveys and/or works as necessary to ensure compliance with wildlife legislation and standard best practice; and
- to identify appropriate avoidance, mitigation, compensation and enhancement measures as required to demonstrate compliance with the 'mitigation hierarchy' and requirements of local and National biodiversity policies (*e.g.* the 'biodiversity duty' enshrined within S.40 of the NERC Act 2006, NPPF *etc*).

4.5 Limitations

A third-party data search was not commissioned by the client as part of this project. However, this is not considered to be a significant limitation taking into account the results of the further survey work (*i.e.* dusk and pre-dawn surveys) that has been carried out and the small-scale of the proposed development.

There is direct access between the stables and the survey barn, meaning bats seen flying in and out of the stables could also be using the barn. Due to multiple stored items in the barn, view was restricted on the pre-dawn return survey.

4.6 Methods & Parameters

<u>Emergence, Activity and Pre-dawn Surveys:</u>

The nocturnal surveys were conducted by experienced and/or appropriately licensed surveyors using a variety of equipment with the aim of providing maximum confidence in the presence or absence of roosting bats. Surveyors were situated at strategic points around the site, to ensure full visual coverage of potential bat emerge/return points and roosting locations. The property was observed for the duration of the surveys, in order to record the emergence of any bats.

DNA Analysis:

Bat droppings have been collected from the site following the protocol recommended in Collins (2016). The droppings were sent to the University of Warwick for DNA analysis. Copies of the DNA results are provided in Annex 4.2, above.

Survey Parameters:

Table 1: Details of survey parameters for Common Barn Farm.

Date	Survey Type	Sunset / Sunrise	Survey Start & End Times	Weather Conditions	Surveyors & Licence No.	Equipment
10 July 2020	Daytime	n/a	n/a	Cloudy with a light breeze and a maximum daytime temperature of 18ºc	R. Pelc 2015-13354-CLS-CLS	Ladders, high-powered torch with red filter, endoscope, binoculars and dropping collecting pots.
29 July 2020	Dusk Emergence	21:03	Start: 20:48 End: 22:33	Start: 17°C End: 14°C Relative Humidity: 62% Cloud Cover: 100% Wind Speed: <1kmph Overcast/grey, still, humid, warm and dry	E. Seaton: 2015-15098-CLS-CLS A. Woodman (n/a)	Anabat walkabout Magenta 4 EM Touch Pro 2
13 August 2020	Pre-dawn Return	05:48	Start: 04:11 End: 06:00	Start: 20°C End: 19°C Cloud Cover: Start 50% End 20% Wind Speed: 1-5kmph	F. Fellowes-Day: 2015-13346-CLS-CLS N. McLean: 2015-14850-CLS-CLS	EM Touch Pro 2 Anabat Walkabout Batbox Duet Kestrel 4000NV

4.7 Background Data

Pre-existing Information on the Bat Species at the Survey Site:

A Preliminary Roost Assessment was completed at the site on 10 July 2020 by an experienced and appropriately licensed surveyor from Focus Environmental Consultants (see Focus Environmental Consultants, 2020). Please refer to this report for full descriptions of the site and scope of works.

Status of Bat Species:

Survey results have confirmed that the survey barn at Common Barn Farm supports roosts of common pipistrelle, brown long-eared and *Myotis* sp. bats.

Common pipistrelles are relatively common species locally and nationally and population estimates for the UK are between 1 – 3 million individuals.

Brown long-eared bats are common species at local, county and regional levels in mainland Britain and Ireland. However, the brown long-eared bat has suffered ongoing declines due to intensification of farming practices and loss of roosting and foraging sites to development and barn conversions. The brown long-eared bat is listed as a species 'of importance for the purpose of conserving biodiversity' under S.41 of the Natural Environment and Rural Communities Act 2006.

Brandt's and whiskered bat species are very difficult to tell apart unless they are identified in the hand. Partly because of the difficulties in survey identification of these species their populations and habitat requirements are poorly known. Both are believed to be relatively uncommon and locally distributed; population estimate whiskered bats = 64,000, Brandt's = 30,000 (Battersby, 2005). Furthermore in 2010 an additional, very similar species, Alcathoe's whiskered bat (*Myotis alcathoe*) has been confirmed as resident in the UK (see *e.g*. www.bats.org.uk). However, as yet little is known about its habitat requirements, distribution or conservation status.

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4.9 Bat Ecology & Legislation

Only two different families of bats occur in the UK, of which the most numerous are the "vesper bats" or ***Vespertilionidae***. Only two members of the ***Rhinolophidae*** or "horseshoe bats" occur in the UK, namely the greater and lesser horseshoe bat. The UK currently supports 17 different resident species of bat from these two family assemblages. One of these, Alcathoe's bat (*Myotis alcathoe*) has only been discovered as resident in 2010. The greater mouse-eared bat (*Myotis myotis*) was previously thought to be extinct as a UK mammal species until a single individual was discovered in 2002 at a known hibernation site in Sussex, this may yet turn out to be resident species but is currently regarded by the Bat Conservation Trust as a vagrant/occasional winter visitor. Another species, the pond bat (*Myotis dasycneme*) is increasingly being identified in the UK and may currently be in the process of colonising the country from continental Europe.

British bats are entirely insectivorous, and consume a variety of invertebrate species of various shapes and sizes from the smallest gnats and midges to cockchafers, ground beetles and spiders. Bats are increasingly regarded as being species of conservation concern owing to a decline in both numbers and range. The reasons for these declines are thought to relate primarily to changing agricultural practices (in particular intensification of agriculture and increased use of pesticides) and direct loss of foraging habitats and roosts from human development such as infrastructure projects and conversion of agricultural buildings (see *e.g.* JNCC, 2004; www.bats.org.uk). All UK bats utilise echolocation to navigate within their environment and hunt for food. It is increasingly being discovered that echolocation calls can also have an important 'social communication' function between bats.

Bats are strictly nocturnal unless disturbed, diseased or starved of food due to adverse weather conditions. Consequently bats require a place of shelter and protection (commonly termed a roost) from predators during the daytime. Bat roosts can be found in a variety of both natural and anthropogenic situations including buildings (residential, agricultural, industrial, modern and ancient), mature trees, bridges, tunnels, caves and mines. Purpose built bat boxes are now commercially available and bats will use these, as well as taking advantage of unoccupied bird boxes if available.

Bats are mobile throughout the year and may use different types of roost according to the particular needs of their lifecycle. Different roost types include maternity roosts, hibernation roosts, satellite roosts, day roosts, night roosts, transitional roosts, feeding perches and mating roosts. The most significant roosts in terms of bat numbers and conservation significance are 'maternity roosts' and 'hibernation roosts'. Pregnant female bats will aggregate in maternity roosts to give birth and rear their single offspring (twins occur rarely). These types of roost are normally associated with warm, protected sites. During colder months of the year, bats go into hibernation and require sites with stable temperatures high humidity levels. Bats do not always use roosts in a predictable fashion and tree-dwelling species are notoriously nomadic and will move between a variety of different tree roost sites. By contrast maternity roosts tend to be the most loyally occupied from year to year, although again this differs between the different bat species.

Council Directive 92/43/EEC ("The Habitats Directive") is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. Bats are a European Protected Species (EPS), and are listed in Annex IV of the Habitats Directive. This affords both the bats and their roosts with strict protection. Some bat species have a higher conservation concern in Europe. The habitats supporting these species can be designated as Special Areas of Conservation (SACs) and the bat species concerned are listed under Annex II of the Habitats Directive. Bats listed on Annex II include the greater and lesser horseshoe bats, the Bechstein's bat and barbastelle. Actions and activities that are prohibited by this legislation are:

- deliberate capture, injury or killing of a bat;
- deliberate disturbance of a bat and in particular disturbance which is likely to; impair their ability:
    - to survive, to breed or reproduce, or to rear or nurture their young, or
    - in the case of animals of a hibernating or migratory species, to hibernate or migrate;
    - or to affect significantly the local distribution or abundance of the species to which they belong.
- damage or destruction of a breeding site or resting place;
- possessing, controlling transporting, selling or exchanging, or offering for sale or exchange, any bat or any part of a bat or anything derived from one.

Substantial penalties including fines and custodial sentences are now in place for offenders under the Conservation of Habitats and Species Regulations 2017.

The primary legislative Act covering wildlife in the UK is the Wildlife and Countryside Act 1981 (WCA), which affords protection to all bat species. The WCA has seen numerous amendments since it was brought into force, of which the most recent and arguably significant have been the Countryside and Rights of Way (CRoW) Act 2000, the Natural Environment and Rural Communities (NERC) Act 2006 and the Conservation of Habitats and Species Regulations 2017 (described above). The intentional or reckless damage of roosts or disturbance of bats is specifically prohibited under the WCA as amended. The offence of 'reckless' disturbance and damage is not contained within the Conservation Regulations and has thus been retained within WCA.

Because bats are known to use many roost sites on a regular basis year on year, legal precedent indicates that these roosts should be regarded protected regardless of whether bats are present at the time they are inspected. Legislative changes and amendments have now completely removed the defence of harmful actions being "the incidental result of an otherwise lawful operation" for EPS, which was previously afforded under the Wildlife and Countryside Act 1981 (as amended).

A number of British bat are described as being of ‘of principal importance for the purpose of conserving biological diversity’ under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). The NERC Act places a specific ‘biodiversity duty’ upon all national and local government departments to ensure the conservation of Biodiversity.

The National Planning Policy Framework (NPPF) sets out the government’s planning policies for England and how they should be applied to achieve the over-arching goal of ‘sustainable development’.

5. QUALIFICATIONS & EXPERIENCE

Focus Environmental Consultants® has the expertise to provide sure-fire environmental solutions to a wide range of projects. The company ethos forges the highest standards of professional scientific practice with a best value approach for our clients. Our core area of expertise is in the production of specialist ecological and arboricultural reports and advice to support planning applications. We are also building an enviable reputation for innovative habitat creation and management solutions. Our flexible approach, range of skills and broad project experience from major infrastructure contracts to smaller projects allows us to adapt to your individual requirements. Focus Environmental Consultants is situated in Worcestershire, providing a convenient and central UK location.

Robert Pelc MSc GradCIEEM

Robert is an Ecologist who joined Focus Environmental Consultants in 2019 and has over four years' of professional experience in the field of ecology. His ecological experience includes Preliminary Ecological Appraisals and surveying for European Protected Species including bats, great crested newts and hazel dormice. Robert is highly experienced in a range of bat survey techniques, from detailed building and tree inspections to more advanced trapping techniques and radio tracking. Robert is also a competent surveyor of reptiles and barn owls. He holds a Natural England survey licence (Class 2) and Natural Resources Wales licence for bats. He also holds a Natural England survey licence (Class 1) for great crested newts. Robert is a Graduate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Emma Seaton BSc (Hons) GradCIEEM

Emma is an Ecologist who joined Focus Environmental Consultants in 2014. Emma holds a BSc (Hons) degree in Biology from the University of Sheffield and has since gained a postgraduate certificate in Ecological Consultancy. Her ecological experience includes Preliminary Ecological Appraisals, Ecological Impact Assessments (EcIA), and surveying for notable and European Protected Species. She holds Natural England survey licences for bats (Class 2), great crested newts and white-clawed crayfish, as well as a Natural Resources Wales survey licence for bats. Emma has been the 'Named Ecologist' on Natural England (development) licences for bats and has experience of developing suitable mitigation strategies and overseeing licensable works. She has also prepared great crested newt EPSL applications and mitigation strategies for reptiles.

Aimmie Woodman BSc (Hons)

Aimmie joined Focus Environmental Consultants in 2020 as an Assistant Ecologist to support the ecology team with protected species surveys, translocations and supervision. She holds a BSc (Hons) in Conservation Biology and Ecology from the University of Exeter and has been volunteering with wildlife since 2013. Aimmie is experienced at working with bats having been a bat carer and freelance surveyor since 2016.

Fern Fellowes-Day BSc (Hons) MSc MCIEEM MRSB

Fern has over sixteen years of professional experience in the ecological consultancy field. She holds BSc (Hons) in Zoology from the University of Wales, Aberystwyth and MSc in Habitat Creation and

Management from Staffordshire University. Fern has considerable experience in conducting Preliminary Ecological Appraisals and Ecological Impact Assessments (EcIA). Fern's particular expertise is with protected species surveys, she has extensive knowledge in dealing with the badgers, with practical experience in artificial sett design and creation and has held numerous Natural England licences to close or disturb badger setts. In addition Fern holds survey licences for great crested newts, bats and white-clawed crayfish. Fern has held Natural England Mitigation (development) licences for great crested newts (including being a Registered Consultant for the new Great Crested Newt Low Impact Class Licence) and Conservation licences for white-clawed crayfish. She is particularly experienced in dealing with newt issues affecting the quarrying, mineral extraction and landfill industry.

This report has been checked for quality and content by:

Graham Davison BSc (Hons) MSc MCIEEM MRSB

Graham is an ecologist with over eighteen years of experience in the field of applied ecology. He holds a BSc (Hons) degree in Zoology and an MSc with distinction in Law and Environmental Science. Graham's Masters paper on legal and practical implications for mammal reintroductions was published by the IUCN. His ecological experience includes surveys to identify nationally and locally important sites for wildlife, ecological services to local planning authorities and provision of ecological reports to accompany major infrastructure projects, housing schemes, industrial developments and mineral extraction. Graham is a skilled botanical surveyor (FISC 4) specialising in Phase I and Phase II (NVC) Habitat Surveys. Graham has considerable expertise in protected species surveys and licensing, and is a Registered Consultant under the Bat Mitigation Class Licence scheme (BMCL). Graham has appeared and delivered evidence as an expert witness for Planning Appeals and Public Inquiry. Graham has been interviewed for BBC local radio and TV programmes to provide specialist expertise on ecological topics.