

894 Huddersfield Road,
Mirfield,
West Yorkshire
WF14 9HS

Bat Survey Report

July 2022

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1 Introduction

- 1.1.1.1 This report presents the results of a series of Bat Surveys undertaken at land adjacent to 894 Huddersfield Road, Mirfield, West Yorkshire, WF14 9HS. The land (~0.78 hectares) is centred on grid reference SE 21575 19985 with the site boundary shown in Figure 1. The site is located ~800 metres south-west of the centre of Ravensthorpe. The site is located approximately 50 metres north of the River Calder.
- 1.1.1.2 Figure 1 provides an illustration of the building location and Figure 2 provides an illustration of the wider area.
- 1.1.1.3 A Preliminary Ecological Appraisal (PEA) survey including a Bat Scoping Survey was conducted on 12th January 2022, full details of which are within the following report. For ease of reference, the PRA results are reproduced within this report.
- Quants Environmental Ltd. (2022). Preliminary Ecological Appraisal Including Bat Scoping Survey January 2022

1.2 Scope of Work & Aims.

- 1.2.1.1 The primary aim of these surveys was to determine the presence or likely absence of a bat roost within the building and to enable the prescription of further guidance and mitigation where required.

Figure 1. Survey area outlined red (aerial imagery dated 2022)



Figure 2. Site location outlined red.



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2 Methodology

2.1 Desk Study

2.2 Personnel

2.2.1.1 All survey work was led by Nick Clayton (Bat Natural England Licence WML-A34-Level 2-2020-49905-CLS-CLS), with assistance from Gemma Longman ACIEEM (Bat Natural England Licence WML-A34-Level 1-2017-27778-CLS-CLS), Adrian Orrell, Clare Ward and Maiya Evans.

2.3 Daytime Inspection Survey

2.3.1.1 A Bat Roost Assessment of the site was conducted on 12th January 2022 by Gemma Longman ACIEEM and Nick Clayton in accordance with the standard survey methodology¹.

2.3.1.2 The building was subjected to a detailed internal and external inspection for evidence of bats immediately prior to the emergence survey by Nick Clayton. The surveys were undertaken in accordance with the standard methodology¹.

2.3.1.3 The exterior of the building and around the trees were searched for signs of bats such as droppings and for potential bat access points and roost features. The interior of the buildings was also inspected for evidence of bats including bats in-situ, droppings, scratches, staining, urine marking, corpses and feeding remains i.e. insect wings.

2.3.1.4 A high-powered LED torch, close-focusing binoculars, digital endoscope (Ridgid SeeSnake CA300) and ladders were available for use throughout the assessment.

Table 1: BCT Guidelines for assessing the potential suitability of proposed development sites for bats.

Suitability	Description of Roosting Habitats	Emergence Survey Requirements
Negligible Potential	Negligible habitat features on site likely to be used by roosting bats.	No further surveys required
Low Potential	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by large numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	One survey emergence survey (May to August)
Moderate Potential	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only)	Two emergence surveys spread between May to September with at least one between May to August.

¹ Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1872745-96-1.

High Potential	A structure or tree with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Three emergence surveys spread between May to September with at least two between May to August.
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2.4 Survey Comments

2.4.1.1 The surveys were undertaken during the main activity period (April to September).

2.5 Dusk Emergence and Dawn Re-Entry Surveys

2.5.1.1 A series of dusk emergence and dawn re-entry bat surveys were undertaken between 5th May and 9th June 2022. Surveyor locations are illustrated in Figure 3.

2.5.1.2 The surveyors assumed positions which enabled clear visual sightlines of all potential bat roost emergence locations identified on each building. Other relevant non-emergence bat activity was also recorded including flight locations, type of activity, time of activity and species.

2.5.1.3 The surveyors used various bat detectors, including the Echo Meter Touch 2 & Pro, and Batscanner detectors. Infra-red cameras (Sony FDR AX-53) and illuminators were used to supplement the surveys.

2.5.1.4 The dusk and dawn activity survey conditions are summarised in Table 2 below.

Table 2: Dawn and Dusk bat survey conditions

Date (2022)	5 th May	9 th June
Survey Type	Dusk emergence	Dawn Re-Entry
Sunset / Sunrise	20:43	04:40
Survey start / end	20:30 – 22:13	03:10 – 05:15
Weather Conditions	Dry, cloud cover 0%, Bft 1 ² . Good visibility.	Dry, cloud cover 0%, Bft 1. Good visibility.
Temp (start/fin)	13°C – 10°C	11°C – 11°C
Survey positions	1 - GL 2 - NC 3 - ME 4 - AO	1 - NC 2 - CW

2.6 Survey Comments

2.6.1.1 The buildings and trees were subject to a comprehensive visual inspection. The weather conditions were suitable for all surveys.

² The Beaufort scale is an empirical measure that relates wind speed to observed conditions at sea or on land. 0 = no wind; 12 = hurricane conditions.

2.6.1.2 The surveys were undertaken within the main maternity roost period. Therefore, it is considered that sufficient information has been collected to enable a thorough evaluation of the buildings and trees in terms of their use by roosting bats.

2.6.1.3 Overall, it is considered that there were no significant constraints to achieving the purpose of the assessment.

Figure 3: Surveyor locations (circled white) Infra-red camera locations (blue diamonds).



3 Results

3.1 Desk Study

- 3.1.1.1 Listed below is an overview of bat records provided by WYE. Please refer to the Preliminary Ecological Appraisal report for additional details and records relating to other protected species and sites.

3.2 Bats

- 3.2.1.1 Listed below is an overview of bat records provided by WYE. Please refer to the Preliminary Ecological Appraisal report for additional details and records relating to other protected species and sites. WYE provided one record of a bat within the site itself:

- Common Pipistrelle (*Pipistrellus pipistrellus*) foraging (recorded June 2014).

The following records are within 500 metres of the site:

- 1 record of Common Pipistrelle foraging (recorded June 2014) 105 metres from the site.
 - 3 field records of Common Pipistrelle (recorded 11th June 2013, 3rd June 2014 and 12th June 2014) all 130 metres from the site.
 - 1 record of Common Pipistrelle injured male (recorded 2nd June 2008) 335 metres from the site.
 - 1 record of Common Pipistrelle foraging (recorded August 2014) 410 metres from the site.
- 3.2.1.2 The data search provided records of Soprano Pipistrelle (*Pipistrellus pygmaeus*), Noctules (*Nyctalus noctula*), Leisler's (*Nyctalus leisleri*), *Myotis*, *Myotis nattereri*, and Brown Long Eared (*Plecotus auritus*) within a 2 km radius of the site.
- 3.2.1.3 A search of MAGIC showed three previous granted European Protected Species licences within 2 km of the site all in a south-east direction.

3.3 Overview of Surrounding Habitats

- 3.3.1.1 The site is located west of Ravensthorpe and east of Towngate, and approximately 3.5 km south-west of the centre of the market town of Dewsbury. The site is bordered to the north by a national cycle route (66) lined with mature deciduous trees leading to Holroyd Park, to the south by Huddersfield Road (A644), to the east by residential housing and to the west by commercial land which appears to be derelict and since been colonised by pioneer vegetation. The areas of land within the boundaries of the site, contain partially managed grassland forming the gardens belonging to no.894, with areas of planted shrubs, scrub and mature deciduous trees around the boundaries.

3.4 Building and Tree Descriptions & Bat Roost Potential

- 3.4.1.1 There is one building within the site; a disused stable block constructed of corrugated asbestos/pressed concrete sheeted roof located on the northwest boundary. The building is in a state of disrepair with emergent vegetation including bramble scrub encroaching in places.
- 3.4.1.2 The dilapidated building is assessed as having low potential for bats, offering potential roosting opportunities between wooden beams and the roof, along with occasional gaps within brick work.
- 3.4.1.3 The trees located towards the north west of the site (including sycamore and horse chestnut) were assessed as having moderate bat roost potential due to the presence of cracks, crevices and rot holes.
- 3.4.1.4 In terms of foraging and commuting habitats, the grassland on the site is assessed as being of low value for bats with the trees on the site boundaries assessed as being of higher quality for

bats due to the likely abundance of invertebrate prey, good structure and habitat connectivity along with the proximity to other areas of good quality habitat in the wider area.

3.4.1.5 The site has potential to be used by species tolerant of lighting and human disturbance such as pipistrelle species.

3.5 *Dusk Emergence and Dawn Re-entry Survey Results*

3.5.1.1 The key findings from the survey are presented in Table 4 below and illustrated in Figure 5 on the following page.

3.5.1.2 The surveys identified:

- **Common Pipistrelle roost (*Pipistrellus pipistrellus*) - 1x roost (total max count 1x bats);**

3.5.1.3 The Common Pipistrelle roost is considered to be a transient roost.

Table 4: Activity Survey Findings

Date (2021)	Findings
5th May	<p>The dilapidated building (low potential) and both trees (Horse Chestnut and Sycamore) previously identified as moderate potential were surveyed and internal search was undertaken of the building before the emergence survey.</p> <p>A single bat Common Pipistrelle <i>Pipistrellus pipistrellus</i> was first seen at 20:56 emerging from a knot hole on branch on the sycamore.</p> <p>Common Pipistrelles were seen throughout the survey period foraging along the treelined boundary and amongst the trees at the north end of the site. A maximum of 5x bats were seen at any one time.</p> <p>No other species of bat were recorded.</p> <p>No bats emerged from the building.</p> <p>x1 Common Pipistrelle roost in a branch of the sycamore.</p>
9th June	<p>The two trees were surveyed during the dawn survey (Horse Chestnut and Sycamore).</p> <p>During the dawn return survey, between the time of 03:09 and 04:04 Common pipistrelles were seen foraging around the trees being surveyed in a typical swarming pattern, maximum count of x3 bats. At 04:07, 04:10, single passes were heard and not seen of Common pipistrelle behind our surveying positions. At 04:12 a Common Pipistrelle was heard foraging for around 5 minutes outside of the surveyed position.</p> <p>A single Brown Long Eared bat <i>Plecotus auritus</i> pass was heard at 03:11</p> <p>No other bat species were heard or seen during the survey.</p> <p>No bats returned to either tree surveyed.</p>

Figure 5. Sycamore Tree with site of emergence shown within red ellipse.



Figure 5. Sycamore Tree, view from infra-red camera with site of emergence shown within red ellipse.



3.6 ***Nesting Birds***

3.6.1.1 No nesting birds were identified during the surveys.

4 Conclusions and Recommendations

4.1 Conclusion

4.1.1.1 The main conclusions from the bat surveys are as follows:

- **The Sycamore at the north end of the site supports 1 species of roosting bats:**
- **1x transient roost - Common Pipistrelle roost (1x bat)**
- The immediate and wider area provide good foraging and commuting habitat for all bat species within the local range.

4.1.1.2 Please note. The survey data presented in this report will remain valid for one year (i.e. until the end of October 2023). After this time, update surveys would be required to confirm the current status of bat roosts at the site.

4.2 Building (old stable).

4.2.1.1 No bats were found roosting within the building, however, it should be noted that it is possible that temporary roosts may occur within the buildings on an occasional or intermittent basis. It is considered that the proposed demolition of the building can proceed without likely significant effects on bats providing the measures listed below are adopted.

- In the unlikely event that bats, or evidence of bats such as droppings, are found at any stage during the building work, work must stop immediately, and advice sought from a licensed bat worker or from Natural England.
- Contractors must avoid handling a bat where possible, and should a bat be discovered during development works the bat should be allowed to disperse on its own accord or wait for the licensed handler to collect the bat. If it is necessary to remove a bat to avoid it being harmed, gloves must be worn. It should be carefully placed in a cardboard box and kept in the dark in a quiet place until the licensed ecologist arrives on site.

4.3 Bat Impact Assessment (Sycamore in Situ)

4.3.1.1 The proposed development involves demolition of the building on site, the two trees identified as moderate potential for bats are being maintained on site. Therefore, a EPSM licence should not be required to proceed with the works.

4.4 Bat Impact Assessment (Sycamore Removed)

4.4.1.1 If the development includes removal of the trees at the north end of the site, specifically the Sycamore a EPSM licence will be required.

4.4.1.2 In the absence of mitigation, the proposed development would involve the destruction of the Common Pipistrelle bat roost through the removal of the Sycamore tree.

4.4.1.3 The loss of the Common pipistrelle roost is predicted to be low at the District level. The loss of the Common Pipistrelle roost would be moderate at the local level.

4.4.1.4 Due to the confirmed presence of a Common Pipistrelle Roost within the tree referred to within the report as "Sycamore Tree", it will be necessary to obtain a European Protected Species Mitigation (EPSM) licence from Natural England to permit otherwise unlawful activities such as damage/ destruction of a bat roost or disturbance of bats. The confirmed bat roosts receive strict legal protection as a place of rest or shelter of a European Protected Species (EPS). The roost sites are protected even at times when the bat(s) is absent, e.g. during the winter whilst bats are likely to return in the future.

- 4.4.1.5 Damage or destruction of the bat roost can only proceed under a European Protected Species Mitigation (EPSM) Licence issued by Natural England. Natural England normally only allows licence applications to be processed after planning permission has been granted.
- 4.4.1.6 Without mitigation, the proposed works would be likely to result in offences listed under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended), e.g. damage/ destruction of a roost site and disturbance of bats. Before issuing a licence, Natural England will need to be satisfied that the following '3 tests' are met (this will include measures to minimise impacts on bats through design/ mitigation/ seasonal timings etc.):
- That the action is for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature;
 - that there is no satisfactory alternative; and
 - that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.
- 4.4.1.7 It should be noted that Natural England will only process a EPSM licence application when planning permission has been granted and within three months of the works start date.

4.5 Artificial Lighting

- 4.5.1.1 Artificial lighting will also need to be considered. Artificial lighting causes disturbance to bats; as such lighting must not be directed on trees around the boundary or flight paths joining the roost to habitats such as woodland or hedgerows. All new lighting must be downward facing, of a low output and only lighting triggered by PIR sensors to be used.

4.6 Enhancements and Compensation (bats)

Recommendations

- 4.6.1.1 As an enhancement and compensation measure, it is recommended that 1x bat box (model: Ibstock Enclosed Bat Box 'C or similar) can be installed on the south-west or south-east elevations of the new buildings at a height of > 4m away from dense vegetation and artificial light.

4.7 Birds

- 4.7.1.1 A range of common birds are likely to nest in trees, hedgerows, and the building at the site. The site is considered unsuitable to support large assemblages of breeding and wintering birds.

Recommendations

- 4.7.1.2 Where possible, any works affecting potential bird nesting areas should be undertaken outside the main bird nesting period of March to August (inclusive). If this is not possible, any such works undertaken within the bird nesting period (March to August inclusive) should be supervised by a suitably qualified ecologist. The supervising ecologist will advise all site personnel of the potential presence of nesting birds, their legal protection and the need to avoid/minimise disturbance of nesting birds. If active nests are present, they must be retained in situ undisturbed until the nests are no longer active.
- 4.7.1.3 It is recommended that permanent bird nesting opportunities should be provided at the site including nest boxes (attached to retained trees / poles in suitable locations) and/or on buildings; If any new buildings are over 5 m high, universal integral swift bricks are recommended (Ibstock Eco-habitat for Swifts or similar). Swift bricks have been found to benefit a number of small birds

including sparrow³. Otherwise, alternative nest boxes such as house sparrow nesting terraces are recommended.

³ <https://nansledan.com/nansledan-residents-asked-to-help-with-bird-box-survey/>

Appendix 1. Legislation and Conservation Context

European Protected Species (all Bats)

All British bat species are fully protected through The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 as European Protected Species (EPS). They also receive some protection through inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Under the legislation, it is an offence to deliberately capture, injure or kill a bat. It is an offence to damage or destroy a breeding site or resting place of a bat. It is also an offence to intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; or obstruct access to any structure or place which it uses for that purpose.

It is also an offence to deliberately disturb a bat; in particular any disturbance which is likely (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or (b) to affect significantly the local distribution or abundance of the species to which they belong.

The 'appropriate authority' (Natural England in England) has powers to issue licences for various purposes including - (a) scientific or educational purposes... and (e) preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment. The appropriate authority shall not grant a licence under this regulation unless they are satisfied - (a) that there is no satisfactory alternative, and (b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. It is an offence for any person authorised by virtue of a licence to which this paragraph applies to contravene or fail to comply with any condition which the licence requires him to comply with.

Nesting Birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the 1981 Act, e.g. barn owl, receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

Appendix 2. Photographs

Photo 1. Western side of site looking north-west towards west and north boundaries.

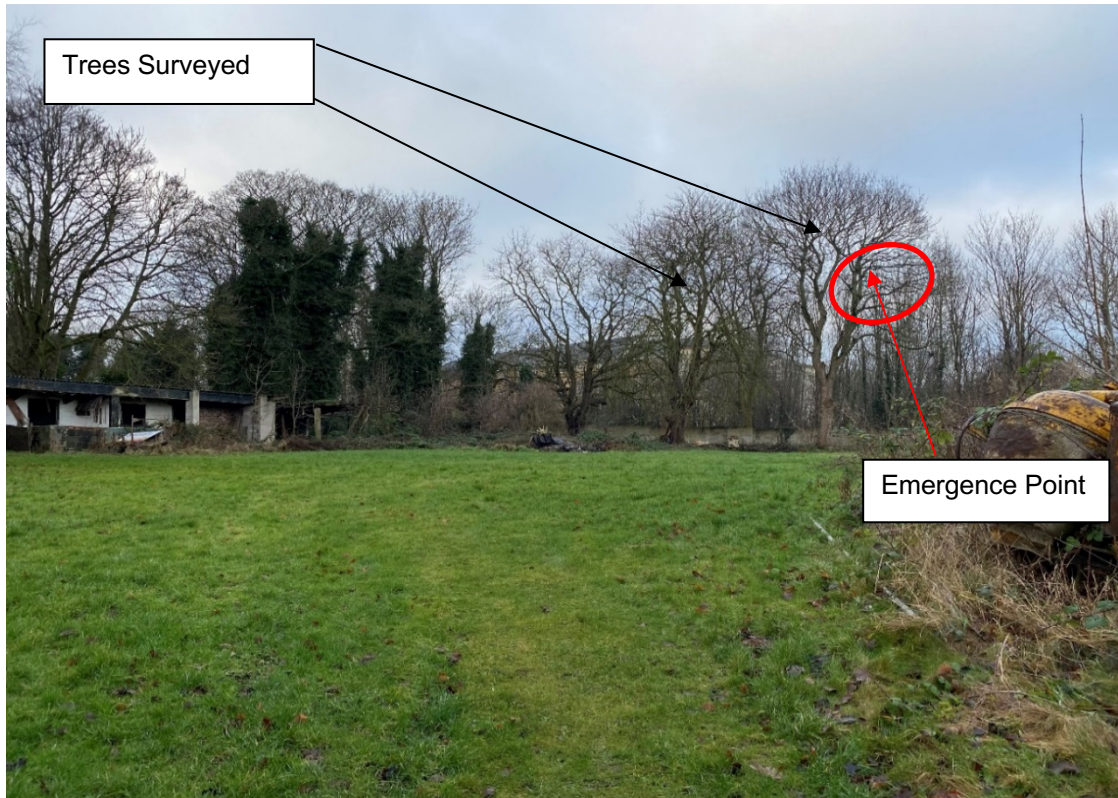


Photo 2. Looking south from western side of site (Building with low bat potential to the right).



Photo 3. Sycamore with moderate bat roost potential located to north of sote (western side)



Photo 4. Building with Low bat roost potential



Photo 5. Internal of building with low bat roost potential



Photo 6. Internal of building with low bat roost potential



Appendix 3. Bat Survey Results

Time	Species	Notes
GL – 5.5.22 – Position 1		
20.56	C.pip	Seen in foliage near tree then 2x bats Foraging Emergence confirmed via Infra-red video
21.05 21.46	C.pip x5	Foraging constantly around trees
NC – Position 2		
20.53- 21.15	45p x4-5	Continuous foraging, dispersal along boundary?
21.15 – 21.31	45p x2	Foraging constant nr trees
21.37- 21.45	45p	Foraging
21.52 - 22.03	45p	n/s Passes 4-6 per minute
ME – Position 3		
20.52	45p	
20.52	Noctule?	
20.54	45p	Flying around trees behind
21.00	45p	Flying around trees
21.03	45p x2	Flying around trees
21.06 – 21.24	45p x3	Flying around trees, more activity.
21.24	45p	
21.28	45p	
21.33	45p	
21.39 – 21.46	45p	
21.52	45p	
21.56 – 22.08	45p	
22.14	45p	
AO – Position 4		
20.55	Com	Multiple passes

20.59	Com	Multiple passes
21.00	Com	Foraging High in Trees
21.02	Com	Right to left pass
21.04 – 21.08	Com	Foraging, Multiple passes
21.09 – 21.21	Com	Foraging, Multiple bats, multiple passes
21.23	Com	Foraging, Multiple passes
21.28	Com	
21.32	Com	Foraging, Multiple passes
21.33	Unknown	Right to left along rear of building
21.34	Com	Foraging, Multiple passes
21.39	Com	Foraging, Multiple passes
21.48	Com	Foraging
21.51	Com	Foraging
21.53	Com	Foraging, multiple bats, multiple passes
21.58	Com	Foraging
21.59	Mammal	Small fox at rear of building
22.01	Com	Foraging
22.02	Com	Foraging, multiple bats, multiple passes
22.05	Com	Foraging, multiple passes
22.10	Com	Foraging, multiple passes
NC – 9.6.22 – Position 1		
03.11	BLE	n/s
03.13 – 04.04	45p x2-3	Foraging around tree, swarming behaviour.
04.07	45p	Foraging
CW – Position 2		
03.09	45p	
03.11 – 03.41	45p	Foraging continuous
03.44	45p	Circling near tree top
03.46 – 04.01	45p	Foraging continuous
04.03	45p	
04.10	45p	

04.12 – 04.17	45p	Foraging continuous
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