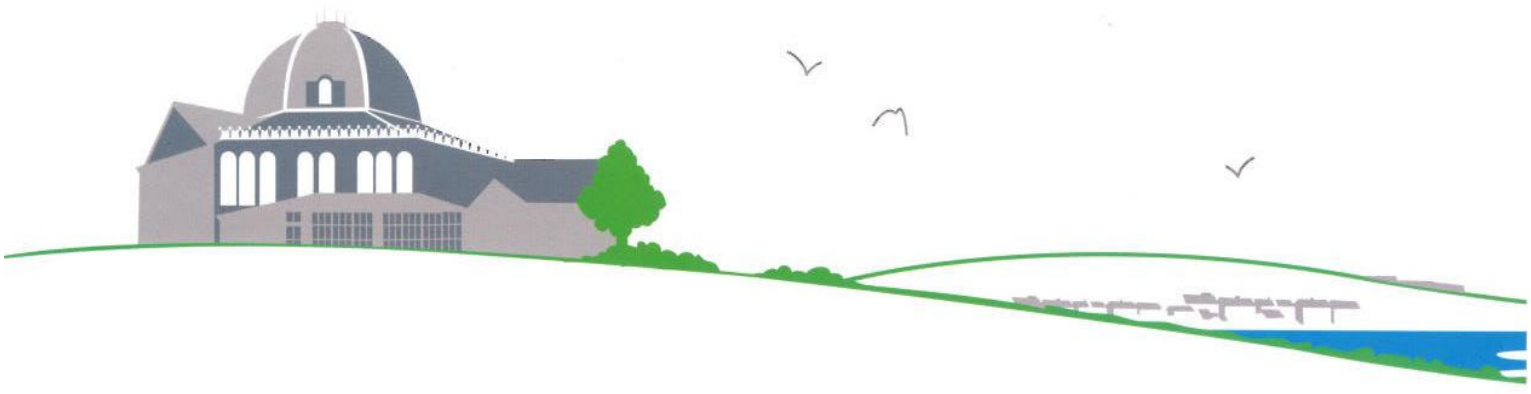
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CONSULTANT ECOLOGISTS

BURO HAPPOLD

DEWSBURY

BAT SURVEY REPORT



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DEWSBURY

BAT SURVEY REPORT

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October 2021

This project has been undertaken in accordance with PAA policies and procedures on quality assurance.

Signed:_ ____

Penny Anderson Associates Ltd
CONSULTANT ECOLOGISTS

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FIGURE

1 Dewsbury Bat Transect and Static Monitoring Results

APPENDIX

1 Summary of the Legislation Relating to Bats

1. INTRODUCTION

1.1 Penny Anderson Associates Ltd (PAA) was commissioned by Buro Happold to carry out a suite of bat surveys at a site in Dewsbury, West Yorkshire, where there is a proposal for development (hereafter referred to as the 'site').

1.2 During the extended Phase 1 habitat survey (PAA 2021) it was assessed that the site provided good habitat for bat foraging and commuting, including a number of hedgerows and potential flight lines, as well as suitable cover in the western wooded compartment of the site. The preliminary survey did not identify suitability for roosting within the site, but did note some trees and structures nearby the site that held some potential bat roost features.

1.3 This report details the methods and results of a suite of surveys that have been designed to collect data on the bat population using the site, to identify bat species using the site and identify areas of higher bat activity and importance. The results have been used to inform recommendations for targeted and suitable mitigation for future development of the site.

Site Description

1.4 The site is in Dewsbury, centred on grid reference SE 22882 19553. It is bordered to the north-east by residential housing and Wharfedale Road and to the north-west by a railway line and a waste recycling centre beyond. Open farmland borders the east and south, and mature woodland to the west,

1.5 The survey area comprises large open fields under cereal and silage with hedgerows and banked field boundaries, along with plantation and mature semi-natural woodland.

Legislative Context

1.6 A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (amended); further details can be obtained from the Joint Nature Conservation Committee (JNCC) web site at www.jncc.defra.gov.uk.

1.7 Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA), 1981 (as amended) and Countryside and Rights of Way (CRoW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).

1.8 At the national level, the UK Post-2010 Biodiversity Framework published in 2012 is the Government's response to the Convention on Biological Diversity (2010). It describes the UK's biological resources, commits a detailed plan for the protection of these resources within the UK's devolved framework across England, Wales, Scotland and Northern Ireland. The document identifies future priorities for nature conservation and adopts a more strategic approach, including ecosystem services and sustainability alongside biodiversity. Despite administrative changes following devolution, there is still an underlying objective of protecting and enhancing a range of priority species and habitats, often still based on the objectives and classifications of the original UK Biodiversity Action Plan. Biodiversity 2020 is England's national biodiversity strategy. Building on the Natural Environment White Paper published in

2011, this provides a means of delivering the international and EU commitments to biodiversity. Under Biodiversity 2020, Priority Species and Habitats referred to are those of 'Principal Importance' for the conservation of biodiversity in England listed on Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006.

1.9 Finally, the National Planning Policy Framework (NPPF 2021) provides guidance for local authorities on the content of the Local Plans and is a material consideration in determining planning applications. Briefly, with an overall focus on sustainable development, the NPPF states that developments should aim to engender positive outcomes for habitats and biodiversity, with a particular focus on the maintenance and creation of ecological networks.

1.10 The NPPF identifies the following principals that should be applied by local planning authorities when determining planning applications:

a. if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b. development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSI;

c. development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d. development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

1.11 The NPPF states that the planning system should contribute to and enhance the natural environment through a range of actions, including:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils;
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services; and
- minimising impacts on biodiversity and providing net gains for biodiversity including establishing coherent ecological networks that are more resilient to current and future pressures.

1.12 To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Bat Biology

1.13 There are 17 species of native bats known to be resident (i.e. breed) in the British Isles. British bats feed entirely on insects and have developed a complex sonar system, known as echolocation, which enables them to find prey and navigate around their environment at night.

1.14 Habitat requirements vary widely, both on an individual and species level, although certain features, such as woodland, parkland, traditional pasture, marshes and areas of freshwater, are often focal points for foraging, as insects are plentiful in these areas (Mitchell-Jones 2004). Bats use linear features such as rivers, hedgerows, roads and woodland edges as landmarks in order to commute from one location to another (Schofield and Mitchell-Jones 2003).

1.15 Bats utilise different roosts at different times of the year. Between late October and March, bats hibernate; this requires an unexposed roost with a stable temperature, typically a cave, cellar or tunnel. Around March, the bats emerge and gradually move to their summer roosts, typically within man-made structures or suitable crevices in trees. During the spring and summer period female bats gather together at maternity roosts to give birth and rear their young. Most births occur between late June and mid-July, with the young able to fly within three to five weeks (Altringham 2003; Waters and Warren 2003). By the end of August, most of the young bats are independent and the colony begins to break up (Schofield and Mitchell-Jones 2003). Mating takes place between August and December, either at the winter hibernation site or at autumn breeding sites. The numbers of bats utilising these roosts can vary from single bats to hundreds of bats in a nursery colony or hibernation site (Altringham 2003).

1.16 Bats play an important role in many environments around the world, including pollination and insect control. In the UK, bats can tell us a lot about the state of the environment because they are top predators of common nocturnal insects and are extremely sensitive to changes in their surroundings, e.g. climate, landscape, agricultural intensification, development and habitat fragmentation. Populations of British bats have suffered severe declines in the past century, influenced by these factors.

Protected Species

1.17 Details of the protected species legislation relevant to this report can be found in Appendix 1.

2. METHODS

2.1 The suite of bat surveys comprised:

- Three transect surveys across the active bat season to record bat species present and how/where bats are using the site; and
- A three-phase static monitoring program of target areas within the site to record species compositions across the active bat season.

2.2 The following methods were employed:

Bat Activity Transect Survey

2.3 Bat activity transect surveys can be used to find out if bats are present or absent, which species use the site, the levels of activity and what bats are using the site for. Three dusk transect routes were undertaken over the course of the 2021 bat active season, on:

- Transect 1: 2nd June 2021;
- Transect 2: 18th August 2021; and
- Transect 3: 20th September 2021.

2.4 The transect routes were designed to cover the footprint of the site, targeting areas such as along hedgerows and woodland boundaries, which bats are likely to use. The transect route coverage is displayed in Figure 1 along with the locations of species detections.

2.5 Surveyors walked steadily along the route recording bat activity, pausing for two minutes at stops approximately every 100m.

2.6 The bat activity transect survey team were Licenced Bat Ecologist Rob Lamb ACIEEM[1] (Licence no: 2020-44441-CLS-CLS), Consultant Ecologists Phoebe Gray and Beth Howes[2], and Assistant Ecologist Connie Webb[2].

2.7 Surveyors, survey timings and weather conditions for each survey are listed in Tables 1 to 3.

2.8 The survey followed current good practice guidelines published by The Bat Conservation Trust (Collins 2016) and, therefore, the survey techniques and assessment criteria were consistent with industry standard techniques for bat surveys. Surveyors are appropriately qualified for these types of surveys following the CIEEM (2013) competency framework.

2.9 Surveyors used batbox duets to aid with detection and species identification in the field. Species identifications were then confirmed against sonogram records from an Anabat Express after the survey.

Static Monitoring

2.10 Two secure locations were identified for monitoring equipment (Wildlife Acoustics SM2 detectors), in areas where bats were likely to use as commuting routes (see Figure 1). These were:

[1] *Associate member of Chartered Institute of Ecology and Environmental Management (CIEEM)*

[2] *Qualifying member of CIEEM*

- Location 1: The boundary of the woodland and proposed development area in the west of the site; and
- Location 2: Within hedgerow along the southern boundary, bordering arable fields.

2.11 The periods of static detector monitoring were variable due to the length that batteries in the SM2s lasted, but were set up to broadly cover the key periods of the active bat season:

- Early to mid-June (2nd June to 11th June at Location 1, 2nd June to 15th June at Location 2);
- Mid- to late-August (18th to 31st August at Location 2); and
- Mid-September (14th to 16th September at Location 1).

2.12 The five consecutive nights assessed to have the most suitable weather conditions for bat activity were selected from each dataset for full sonogram analysis (apart from the mid-September dataset as only three nights were available). The days sampled are displayed in their respective Table headings in the Results section below.

Limitations

2.13 Some technical issues were encountered which resulted in the loss of data from one of the SM2 static recorders at Location 1 in the second round of monitoring, and at Location 2 in the third round of monitoring.

2.14 Despite this, the number of days sampled across the active season at both locations is considered to be sufficient to form a robust assessment of local bat activity.

2.15 There were suitable weather conditions across the three transect surveys and no significant limitations were noted by surveyors.

3. RESULTS

Dusk Transect Surveys

3.1 Details and findings of the transect surveys are summarised in Tables 1 to 3 below.

Table 1 1st Bat Activity Transect Results, 2nd June 2021

Species	First Heard	Activity Levels on Site
Common pipistrelle (*Pipistrellus pipistrellus*, CP)	21:37	First picked up on recording detectors at 21:37 (10m after sunset) in the north-east of the western woodland compartment. CP were first heard by surveyors at 21:53. CP were frequently heard not seen (HNS) from this time onwards across the site. Most CP observations were associated with foraging and commuting along hedgerows bordering and within the arable field compartments.
Start time: 21:20	**Sunset:** 21:27	**End time:** 23:20
Conditions: Dry with calm wind. ~40-50% cloud cover throughout survey.		
Temperature: 17°C decreasing to 14°C. **Humidity:** 68% increasing to 83%.		

Table 2 2nd Bat Activity Transect Results, 18th August 2021

Species	First Heard	Activity Levels on Site
Common pipistrelle (*Pipistrellus pipistrellus*, CP)	21:02	First heard at 21:02 (23m after sunset) in the centre south boundary of the wooded compartment. CP were then heard and seen around the perimeter of the wood between 21:11 and 21:37. The species was detected less in the open aspect of the site, with two further calls detected at 21:54 in the centre of the site, and at 22:09 south of the school in the east.
Start time: 20:30	**Sunset:** 20:39	**End time:** 22:15
Conditions: Dry with light wind. 80-90% cloud cover throughout survey.		
Temperature: 15°C decreasing to 13°C. **Humidity:** 79% increasing to 87%.		

Table 3 3rd Bat Activity Transect Results, 20th September 2021

Species	First Heard	Activity Levels on Site
Common pipistrelle (*Pipistrellus pipistrellus*, CP)	19:45	First heard and seen at 19:45 (35m after sunset) at the south-west boundary of the school. Three individuals. Using hedgerows in this area as flight line and foraging 19:45-19:56. CP then seen using southern boundary hedgerow 19:56-20:00. CP were then heard briefly at the eastern woodland edge at 20:12 and 20:19.
Start time: 18:45	**Sunset:** 19:10	**End time:** 20:45
Conditions: Dry with some light wind. 20-30% cloud cover.		
Temperature: 16°C decreasing to 13.8°C. **Humidity:** 71% increasing to 79%.		

Static Monitoring

3.2 Details and findings of the static monitoring surveys are summarised in Tables 4 to 7.

Table 4 Static Monitoring Results Location 1 (Woodland Edge), 7th to 11th June 2021

Species	Peak Nightly Number of Calls	Record Details
Common pipistrelle (*Pipistrellus pipistrellus*, CP)	68	CP was recorded frequently across the duration of all survey nights. The mean first recording across the nights sampled was 52 minutes after sunset, with the earliest first recording at 22:16 and the latest first recording at 22:49.
Noctule (*Nyctalus noctula,* N)	5	N was recorded on all five survey night samples, albeit infrequently. The mean first recording across the nights sampled was 24 minutes after sunset, with the earliest first recording at 21:45 and the latest at 22:22. N calls were detected infrequently and not for more than a few seconds, indicating nearby commuting either across or nearby the site.
Mean sunset time: 21:35		

Table 5 Static Monitoring Results Location 2 (South Boundary), 7th to 11th June 2021

Species	Peak Nightly Number of Calls	Activity Levels on Site
Common pipistrelle (*Pipistrellus pipistrellus*, CP)	240	CP were recorded frequently across the duration of all survey nights. The mean first recording across the nights sampled was 32 minutes after sunset, with the earliest first recording at 21:59 and the latest first recording at 22:20. These data suggest the site is well used by this bat species for foraging/commuting and that roosts are likely to be close to the site.
Noctule (*Nyctalus noctula,* N)	8	N were recorded on four of the five survey night samples, and on those nights recorded infrequently. The mean first recording across the nights sampled was 37 minutes after sunset, with the earliest first recording at 21:51 and the latest first recording at 22:45. N calls were detected infrequently and not for more than a few seconds, indicating nearby commuting either across or nearby the site.
Myotis sp.	3	*Myotis* sp. was detected on two of the five nights sampled. First detections were at 02:31 and 02:57. The infrequency of calls and late detection times are characteristic of a commuting individual.
Mean sunset time: 21:35		

Table 6 Static Monitoring Results Location 2 (South Boundary), 18th to 22nd August 2021

Species	Peak Nightly Number of Calls	Activity Levels on Site
Common pipistrelle (*Pipistrellus pipistrellus*, CP)	198	CP were detected on all five of the sample nights with high numbers of bat passes recorded, again indicating high levels of use by foraging/commuting CP. The mean first recording across the nights sampled was 35 minutes after sunset, with the earliest first recording at 20:46 and the latest first recording at 21:37.
Soprano pipistrelle (*Pipistrellus pygmaeus,* SP)	20	This was the only sample period across the suite of surveys to detect SP. SP were detected across all five of these sample nights. The earliest detection time was 32 minutes after sunset, with significant variation between earliest detection times (20:56, 20:58, 23:35, 00:29, 04:28). The number of passes on these nights indicates the species (likely one, or at most, two individuals) is using the hedgerows nearby the detector location to occasionally forage and as a commuting route to other, more well used foraging sites.
Noctule (*Nyctalus noctula,* N)	4	N were recorded on two of the five sample nights. Detection times were 1 hour 23 minutes after sunset, and 02:49. Recordings were sporadic and brief, indicating an occasional commuting route for one or two individuals nearby.
Myotis sp.	2	*Myotis* sp. were detected on all five of the survey nights, although only briefly (one or two passes per night). Earliest detection times varied from 51 minutes after sunset, to 03:28.
Mean sunset time: 20:24		

Table 7 Static Monitoring Results Location 1 (Woodland Edge), 14th to 16th September 2021

Species	Peak Nightly Number of Calls	Activity Levels on Site
Common pipistrelle (*Pipistrellus pipistrellus*, CP)	29	Earliest detection times were relatively consistent (19:57, 20:09, 19:52), with a mean earliest detection time 37 minutes after sunset. CP call occurrence was significantly lower than other survey sample periods, likely attributable to the late timing of the survey in mid-September, when summer roosts have begun to disperse.
Myotis sp.	3	*Myotis* sp. were detected on all three sample nights. Calls were sporadic and brief. Earliest detection times varied between 1 hour 20 minutes after sunset to 05:28.
Mean sunset time: 19:22		

Results Discussion

3.3 When considering all the data collected, the activity transects identified that the site is used routinely in the active season by a moderate number of commuting and foraging common pipistrelle (*Pipistrellus pipistrellus)* bats. The static monitoring supported this finding, and also detected occasional noctule (*Nyctalus noctula*), an unidentified *Myotis* species and soprano pipistrelle (*Pipistrellus pygmaeus*). The findings indicate that at least four species of bat are actively using the site or the nearby landscape, and that the site may support flight lines (either directly or nearby) for all of these species.

3.4 Common pipistrelle was the only bat species directly observed during the transect surveys, and the great majority of call recordings from static monitors were attributable to this species. On some occasions, the timings of the first encounter with the species were within the typical emergence time period of the species. Therefore, it is likely that common pipistrelle bats are roosting relatively nearby the site.

3.5 Common pipistrelle activity was observed during transect surveys throughout the site, though with notably less activity towards the well-lit main road and houses to the north. Observations were mostly associated with flight lines along hedgerows (both on the border of and within the site, Figure 1), as well as foraging activity, including confirmed feeding buzzes.

3.6 The transect surveys did not detect soprano pipistrelle, noctule or *Myotis* species. When noctule and *Myotis* species were recorded during static monitoring, they were recorded rarely and for brief periods of time. Therefore, it is assessed that these species are passing over or near the site, though it should be considered that the boundary habitats of the site are likely of value and importance for these species.

3.7 *Myotis* species can be difficult to distinguish using sonogram echolocation calls alone. It was analysed that the characteristics of call parameters available are most attributable to whiskered/Brandt's bat (*Myotis mystacinus* or *M. brandtii*), but this is without certainty.

3.8 Soprano pipistrelle was detected only on the south boundary static detector, during August. Calls were infrequent, but indicate the species is actively foraging, as well as commuting, on or nearby the site.

3.9 Bat call occurrence was much lower during the final phase of static monitoring in mid-September, which is as would be expected when coming to the end of the active bat season and the eventual transition to the hibernation season.

3.10 No emergences or roosting behaviour within the site was observed during the transect surveys. However, these types of survey are not designed to detect such behaviours. The preliminary walkover of the site (PAA 2021) did not identify any suitable roost features within the development area although some potential roost features were noted nearby. A mature ash (*Fraxinus excelsior*) tree located adjacent to the site boundary was previously noted during the extended Phase 1 habitat survey (PAA 2021) as likely supporting potential roost features, although no impacts are anticipated to this tree and, therefore, no further survey/action is recommended.

3.11 Buildings, including houses, adjacent north of the site likely support ample bat roosting opportunities, particularly for crevice dwelling species such as common and soprano pipistrelle and the smaller *Myotis* species such as whiskered/Brandt's bats. Mature trees in the wider landscape, including to the west associated with the mature woodland, may have potential to support noctule and *Myotis* species.

4. RECOMMENDATIONS

Mitigation and Enhancement

4.1 The regularity of common pipistrelle occurrences indicates the site is of significance for the local population of this species. Associations were largely with linear boundary features and linked to commuting and foraging behaviour. Therefore, suitable mitigation should be focused on retaining such features.

4.2 There are opportunities to enhance the site for bats, primarily by offering suitable roost features. Such features should mostly target the already established pipistrelle population, however, some targeted inclusion of bat boxes designed for *Myotis* bats would enhance opportunities and help accommodate a more diverse bat assemblage in the area.

4.3 Where appropriate, new development plans should include scope to retain and enhance the foraging habitat currently available at the site and protect adjacent habitat considered important for bats via including suitable 'buffer' protection zones. Preferably, existing linear features such as hedgerows and woodland edges should be retained and maintained appropriately. This could be supplemented with the inclusion of suitable additional landscape planting and ensuring continuous vegetated corridors leading off-site, as is currently present, to reduce the impacts of bat flight line severance.

4.4 Landscape planting should include species that are native and ideally of local provenance, and/or species with know value for wildlife. Inclusion of wetland features is recommended, such as wildlife ponds or marsh gardens which can form part of Sustainable Drainage System (SUDS) proposals. In combination, such plantings would enhance the invertebrate diversity and prey availability for bats within the site.

4.5 The use of herbicide and pesticide should be avoided as far as practically possible in landscaping maintenance, with other non-chemical methods of weed control being used.

4.6 Lighting at the edges of the site should be absent or designed to be suitably sensitive to account for the known bat species active on/near the site.

4.7 External bat boxes and integrated bat roost features suitable for common/soprano pipistrelle summer and winter roosting should be included within the development site.. The specifications for and positioning of new bat roost features should be developed under the guidance of a suitable experienced ecologist at the detailed design stage of the development.

Survey Validity

4.8 If works have not commenced within 18 months of the date of this survey, then the site should be reassessed in respect of bats to ensure decisions are made based on up-to-date information.

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6. ABBREVIATIONS

CRoW Countryside and Rights of Way

EU European Union

JNCC Joint Nature Conservation Committee

NERC Natural Environment and Rural Communities

NPPF National Planning Policy Framework

PAA Penny Anderson Associates Ltd

SSSI Site(s) of Special Scientific Interest

SUDS Sustainable Drainage System(s)

WCA Wildlife and Countryside Act

FIGURE

422300 422400 422500 422600 422700 422800 422900 423000 423100 423200 423300 423400 423500

420000 419900 419800 419700 419600 419500 419400 419300 419200 419100

Ravensthorpe

RAVENSTHORPE ROAD

Education Facility

Lady Wood

Crow Royd

Priest Royd Wood

1

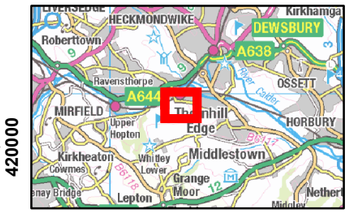
2

STATIC MONITORING DETECTIONS (1)

SPECIES	OCCURENCE
Common pipistrelle	Frequently
Noctule	Rarely
Myotis species	Rarely

STATIC MONITORING DETECTIONS (2)

SPECIES	OCCURENCE
Common pipistrelle	Frequently
Noctule	Rarely
Myotis species	Rarely
Soprano pipistrelle	Occasionally



Legend

- Survey area
- Transect route coverage
- Static detector locations (1 & 2)
- Common pipistrelle flight lines observed
- Common pipistrelle (heard not seen)

Habitats

- Woodland
- Scrub
- Grassland
- Bracken/ruderal
- Arable
- Hardstanding/bare ground
- Hedgerow
- Stream/ditch

N

British National Grid
Projection: Transverse Mercator
False Easting: 400000.000000
False Northing: -100000.000000
Central Meridian: -2.000000
Scale Factor: 0.999601
Latitude Of Origin: 49.000000

ISO A3

Metres

0 20 40 80 120

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Project Name: Dewsbury

Discipline: Ecology

Title:

Dewsbury Bat Transect and Static Monitoring Results

Scale	1:4,000	Drawing No.	Figure 1
Drawn By	CC	Originator	RL
Date	07/10/2021		
PAA Ref.	G:\BUHA13_Dewsbury\Maps\Figures\	Revision	1.0

Figure 1 - Bat Transect Map Dewsbury - BUHA13-1 CC 061021.mxd

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APPENDIX 1

Summary of the Legislation Relating to Bats

SUMMARY OF THE LEGISLATION RELATING TO BATS

All wild species of bat are protected under the Wildlife and Countryside Act (WCA) 1981, which has also been amended by later legislation, including the Countryside and Rights of Way (CRoW) Act 2000 and the Conservation of Habitats and Species Regulations 2017 (amended), and this legislation is applicable to England and Wales. Bats are listed on Schedule 5 of the WCA and are therefore subject to some the provisions of Section 9 which, with the amendments, make it an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection (S9:4b).
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat (S9:4c).

There are additional offences in relation to buying and selling (S9:5) any live or dead animal of this species or anything derived from them.

Bat species are also listed under Annexes IIa and IVa of the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, also known as the 'Habitats Directive'. Inclusion on Annex IVa means they are consequently identified as European Protected Species (EPS) and protected under the Conservation of Habitats and Species Regulations 2017 (amended).

The Conservation of Habitats and Species Regulations 2017 (amended) state that a person commits an offence if they:

(a) deliberately capture, injure or kill any wild animal of a European protected species,

(b) deliberately disturb wild animals of any such species, in such a way as –

  (i) to impair their ability to survive, to breed or reproduce, or to rear their young, or

  (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or

  (iii) to affect significantly the local distribution or abundance of the species to which they belong;

(c) deliberately take or destroy the eggs of such an animal, or

(d) damage or destroy a breeding site or resting place of such an animal.

Under these Regulations it is an offence to damage or destroy a breeding site or resting place whether the animal is in occupation or not, and protection extends to all life stages of the animal in question. There are additional offences relating to possession, control and sale of a live or dead bat or part of such an animal.

In addition, seven native British bat species, including the soprano pipistrelle (*Pipistrellus pygmaeus*) and the brown long-eared bat (*Plecotus auritus*), that are frequently found in buildings, are listed as a 'Priority Species' under the under the 2011 biodiversity strategy for England, *Biodiversity 2020: A strategy for England's wildlife and ecosystem services,* under the 2012 UK Post-2010 UK Biodiversity Framework. These Priority Species are also referred to as 'species of principal importance' for the conservation of biodiversity in England and Wales within Section 74 of the CRoW Act 2000, and Sections 41 (England) and 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006.

In addition, the National Planning Policy Framework (NPPF 2019) has an overall focus on sustainable development, and states that developments should aim to engender positive outcomes for habitats and biodiversity, with a particular focus on the maintenance and creation of ecological networks. Furthermore, the NPPF also states that any planning proposals for which significant negative impacts on biodiversity cannot be avoided, mitigated or compensated for should be refused. Reference is made to Circular 06/2005 *Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System* in respect of statutory obligations for biodiversity and geodiversity conservation.

The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

Please note: the above text provides a brief summary of the legislation in relation to bats in England and Wales and the original Acts, Regulations and any amendments should be referred to for the precise wording.

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