BAT ACTIVITY SURVEY RESULTS

1-3 Chequer Lane
Up Holland
Wigan
Lancashire

August 2023

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A report for

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September 2023

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PART 1: INTRODUCTION:

1.1 REASONS FOR SURVEY:

Following a Preliminary Bat Roost Assessment (PRA) undertaken at the site, Pennine Ecological were re-commissioned by Steven Abbott Associates, to undertake bat activity surveys of one of the buildings at 1-3 Chequer Lane, Up Holland, Wigan, Lancashire.

The surveys are required as the house and former shop (B1) has been categorised as having **'moderate'** bat roost suitability.*

*See *Preliminary Bat Roost Assessment 1-3 Chequer Lane, Up Holland, Wigan, Lancashire.* (Pennine Ecological (July 2023)

Therefore in accordance with the current guidance as provided in *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* Collins, J. Bat Conservation Trust (2016), two presence/absence surveys have been undertaken (see figure 1 below).

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey[a] (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.[b]	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.[b]

[a] Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

[b] Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

Figure 1: Extract from Bat Surveys for Professional Ecologists Good Practice Guidelines 3rd Edition (2016).

1.2 SITE LOCATION:

1-3 Chequer Lane, Up Holland, Wigan, Lancashire WN8 0DA.

Central grid reference SD 5068 0504.

The location of the study area is shown on Figures 2 and 3 in this report. A location plan is provided in the appendix.

1.3 SURVEY METHODOLOGY:

The Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states:

"*The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive."*

Relative to the above, the survey methods and protocol adopted were determined using the collective and long standing experience of the ecologists and their knowledge of the specific nature of the site.

When considering survey protocol the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of the ecologists, the nature of the building, and species that can be anticipated as being present either at the property or in the locality as well as any visual limitations at the survey site.

In accordance with the standard Batt Conservation Trust (BCT) guidance, it is specified that: "*The bat active period is generally considered to be between April and October inclusive*", though the period of **May – August** is the optimal most productive period that Natural England accept bat surveys and grant European Protected Species Mitigation Licences (EPSML).

The timing of the dusk surveys took place in July and August, at a time when bats are in their active season, and a period of the year when maternity colonies have formed at established bat roosts, and pups are frequently beginning to leave the roost.

The active season of bats is generally accepted as May – August across the industry.

Where bats are roosting, they are likely to be detected by the ecologists who are trained in the use of bat detector hardware and call analysis software (Analook / Kaleidoscope), and specifically how to detect bats and to correctly identify/disseminate bat calls.

Furthermore, at dawn, temperatures are usually lower than at dusk; as a result, bat activity can, in some locations, be less frequent. Additionally, where singular/small numbers of bats are present and there are no survey constraints then dawn surveys are of no more value than dusk surveys; singular bats can and do return to a roost before dawn and as a result a dawn survey would not record them anyway.

BCT issued an Interim Guidance Note in May 2022 in advance of a 4th edition of bat survey guidelines to be published in Summer 2022, which supersedes existing guidelines and states in relation to dawn surveys that:

"Whilst dawn surveys can reward surveyors with displays of dawn swarming behaviour, there is a concern that bats that have returned earlier will be missed…

The 4th edition of the survey guidelines will therefore transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys in favour of dusk surveys supported by NVAs. The use of NVAs has the potential to improve the quality of dusk surveys, providing clarity on exact emergence points and bat counts that might not otherwise be available because of the limitations of the human eye."

Survey protocol should not be determined by parties who are not familiar with the site, and do not have a sufficient level of experience in relation to the undertaking of dusk/dawn bat surveys.

The number of surveys and surveyors is considered appropriate relative to the roost potential that was identified during the daytime appraisal – i.e. '**Moderate'** potential. Three surveyors were required to accurately monitor potential roost features (PRF's) on the building at any one time.

Surveyors were strategically positioned so that all elevations with bat roost potential, as described in the daytime report, could be observed without limitations. The surveyors were aided with Anabat, Batlogger, Echometer EM2, Peersonic, or equivalent electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats;

echolocation calls were analysed the next day using Analook or equivalent computer software to verify field observations; where deemed appropriate by the attending ecologists, elevations were also surveyed via the use of a Night Visual Aid (NVA) Camera (Panasonic HC-VXF990) – recordings would be subject to review the following day.

1.4 SURVEY CONSTRAINTS:

Following the completion of the further surveys, having carefully considered the results and conclusions derived from all surveys to date, no significant constraints were experienced that might hinder the gathering of ecological data on which to base sound conclusions and recommendations.

1.5 BAT ECOLOGY & LEGISLATION:

Bats are comprehensively protected by European legislation.

All British bats and their roosts[1] are also afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).

When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty as the local authority to have due regard to the provisions of the Regulations in the exercise of its functions.

Paragraph 180 of the National Policy Planning Framework (as revised in July 2021) states:
180. When determining planning applications, local planning authorities should apply the following principles:

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 Site of Special Scientific Interest, 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 Sites of Special Scientific Interest;

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 reasons63 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*

[1] The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to "*a breeding site or resting place of such an animal"* and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Use of Buildings by Bats:

a) Summer breeding roost.
b) Hibernation.
c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

Up to eleven bat species have been regularly recorded in Lancashire, most of which use built structures, notably occupied residential properties for roosting. The most frequently encountered species is the Pipistrelle bat; its abundant status in Lancashire is reflected throughout the UK.

PART 2 SURVEY RESULTS:

2.1 SURVEY RESULTS:

Two dusk surveys were undertaken on the 17th July and 1st August 2023, by three surveyors at a time. See Table 1 below for surveyor credentials, Tables 2 and 3 for detailed survey results and Figures 1 and 2 for visual aids to further assist in the understanding of survey results.

Name	Experience	Details
Dr. T. Doherty-Bone BSc MSc DIC PhD ACIEEM	13 years	A highly experienced freelance Ecologist.
Mr. M. Moss	2 years	A seasonal ecological consultant with experience of undertaking professional bat surveys.
Mr. D. Ney	5 years	A seasonal ecological consultant with experience of undertaking professional bat surveys.
Mr. M. Pritchard ACIEEM	6 years	Senior Ecologist who holds a range of protected species licences, with extensive training and experience; bats: (2020-5039-CLS-CLS) (Class 1) and accredited agent on (Class 2) Natural England bat licence.
Mr. H. Green	30+ years	Highly experienced Bat Specialist and carer who has decades of professional surveying experience - Class 2 Natural England Bat Licence (CLS-03290).
Mr. M. Smith	7 years	An experienced seasonal bat surveyor..

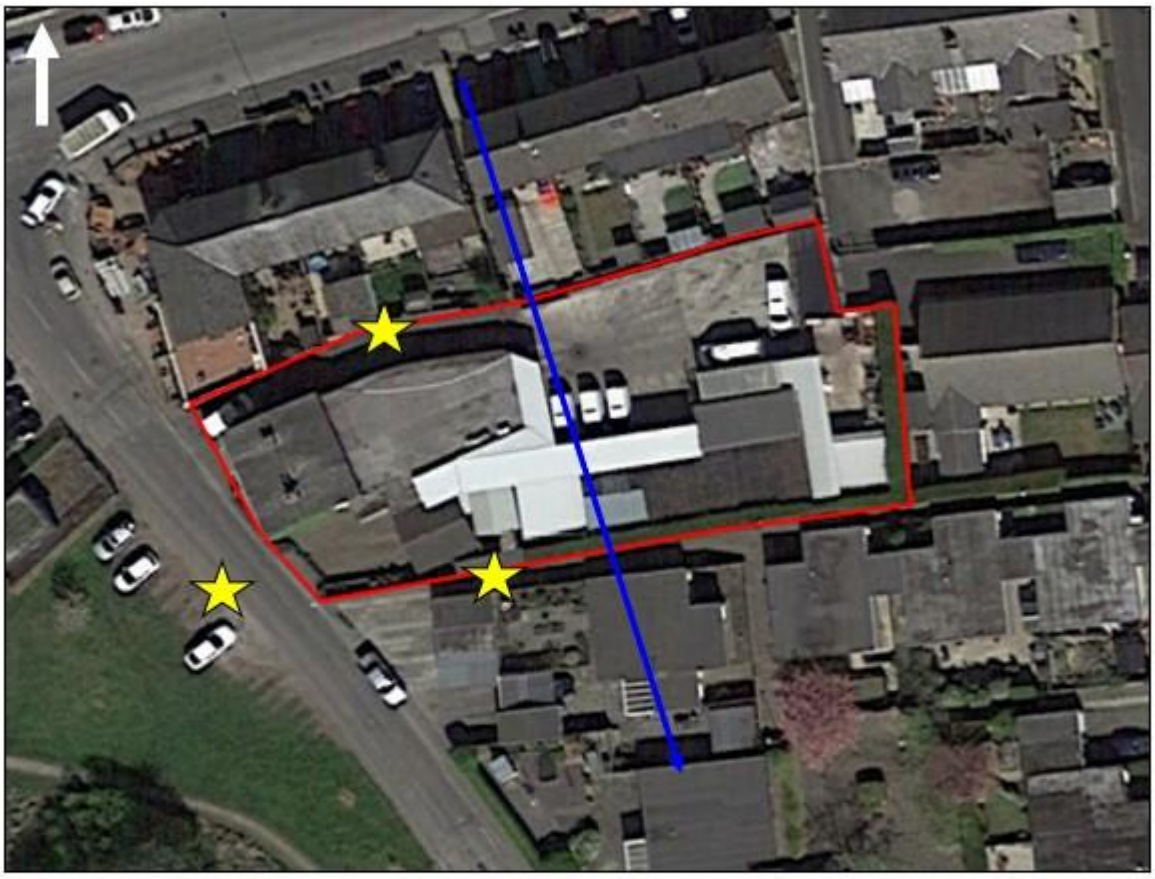
Table 1 – Surveyor names and credentials for both dusk surveys

Times of Survey	**Date**	**Weather Conditions**
Dusk survey 1 2113 – 2233	17/07/2023	**Sunset**: **2133**: Dry, Light breeze, 80% cloud cover Start temp: 15.0 º C End temp: 16.0 º C
Dusk survey 2 2047 – 2207	01/08/2023	**Sunset**: **2107**: Dry, Light air, 90% cloud cover Start temp: 18.0 º C End temp: 15.0 º C

Table 2: Survey dates, times and weather conditions

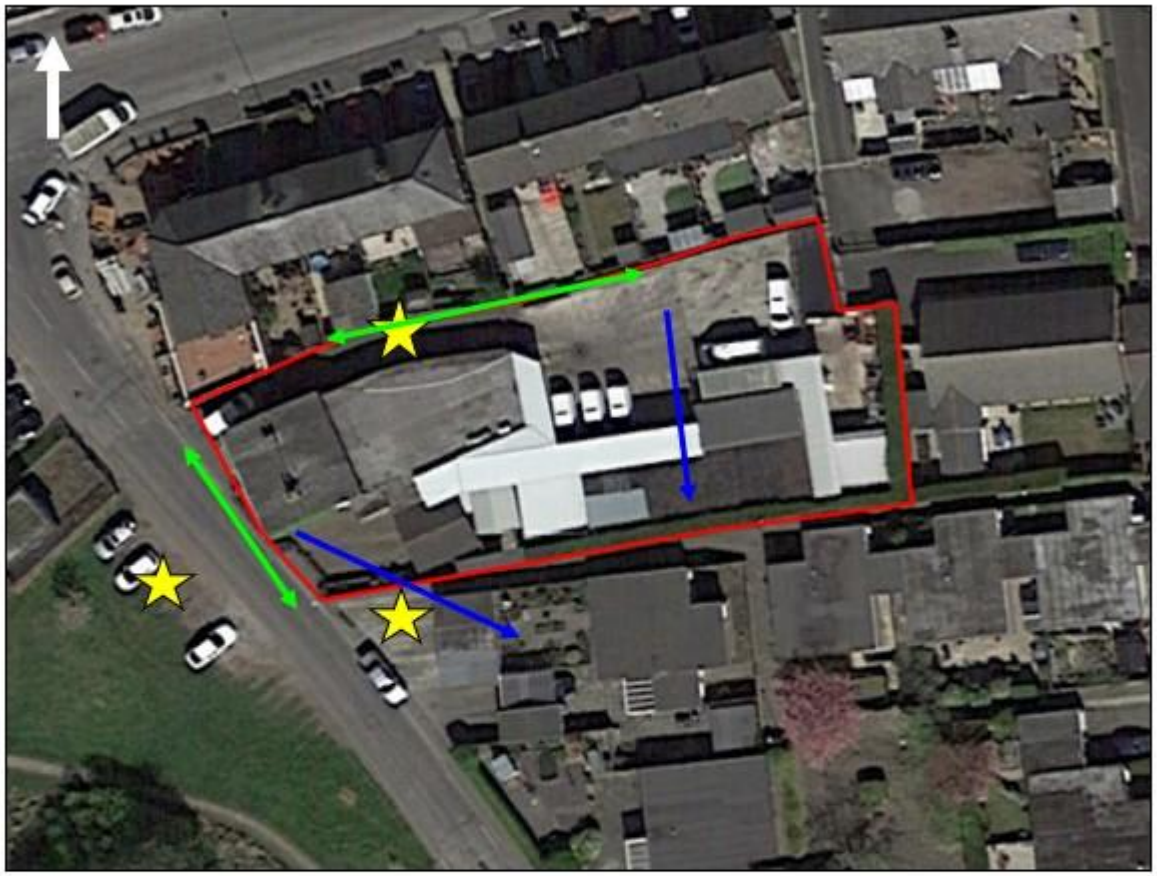
Survey	Time	Activity
Dusk survey 1 17/07/2023	2113 – 2233	**Summary: No bat emergence for the duration of survey** 2130 hrs: common pipistrelle (CP) heard but not seen commuting over Site. General activity was limited to a single instance of commuting by a single common pipistrelle.
Dusk survey 2 01/08/2023	2047 – 2207	**Summary: No bat emergence for the duration of survey** 2151 hrs: CP pass over the building then foraging around alleyway until the end of survey 2151 hrs: CP commuting south 2159 hrs: CP foraging at the north side of the building then commuted south 2200 hrs: CP feeding in the alley way and at front of Site General activity consisted of feeding and commuting by a single common pipistrelle.

Table 3: – Raw data from the surveys



	Survey boundary	N	Directional compass
	Surveyor positions		Commuting activity

Figure 2 – Dusk Survey 1 Results



	Survey boundary		Foraging activity
	Surveyor positions		Commuting activity
N	Directional compass		

Figure 3 – Dusk Survey 2 Results

2.2 CONCLUSIONS AND RECOMMENDATIONS:

2.2.1 Survey Conclusions:

Based on the dusk survey results, it can be concluded that whilst using best practice survey methodology, **emergence of bats was absent at 1-3 Chequer Lane**; activity was limited to commuting and foraging by a maximum of one common pipistrelle at a time.

As bats are a highly transient group and can use buildings that offer potential roost features at any time of the year, it should be stated that if bats, or evidence of bats (see **Figure 6.1**), is found at any stage during the works then as a legal requirement the work at the site should immediately cease and a bat ecologist contacted for further advice.

Figure 4 – Bat droppings (left) and pipistrelle bat (right)

If bat(s) or their roost will be affected then a Natural England European Protected Species Mitigation Licence will be required to legally continue with the work. Notwithstanding the granting of a licence works that would affect a roost cannot take place if a maternity colony is in occupation.

Notwithstanding absence of roost behaviour observed, the proposed development scheme might consider enhancement for bats as part of its biodiversity net-gain goals, in accordance with local and national planning policy.

See indicative enhancement provision bat boxes overleaf for indicative ideas which could be integrated during the proposed works at 1-3 Chequer Lane.

Additionally, it should be noted that installation of new lighting as part of a development scheme that exceeds current levels may have a negative impact upon foraging / commuting bats confirmed as present in the vicinity, particularly if increased light spillage occurs in areas currently valued and relatively free from illumination.

There are several measures that can be used to offset impacts upon bats, where lighting is unavoidable; these include, however are not limited to: the light source used and luminaire

design, and accessories to direct light at its intended target. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site. Refer to the Bat Conservation Lighting Guidelines for further information.

2.2.2 Enhancement Measures:

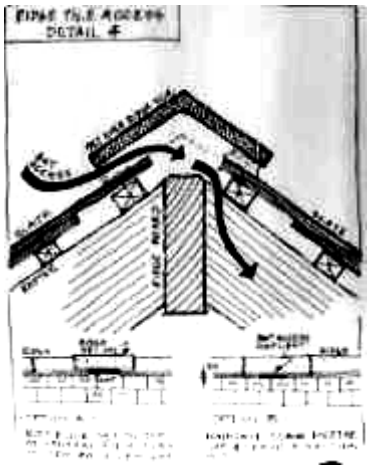
Integrated bat box:

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations. See below.

Habibat Bat Box:

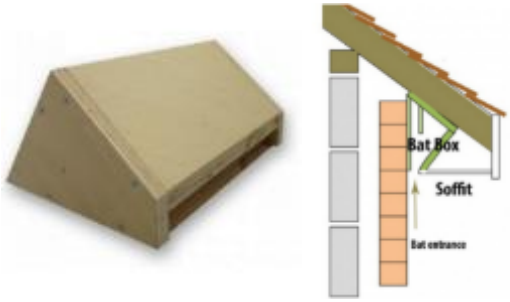
Ridge access:

Where appropriate, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.



Soffit access:

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes:

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box, with more examples present online.

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Site Location Plan
Former Butchers, 1-3 Chequer Lane, Up Holland, Skelmersdale, WN8 0DA
Plan Ref: SAA.3890.1

Promap LANDMARK INFORMATION

Plotted Scale - 1:1250. Paper Size – A4

Map Key:
B1 Building 1 - House
B2 Building 2 - Former processing/storage areas
B3 Building 3 - Garage

HS Hardstanding